

Mud, Mobiles and a Large Interactive Display

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ABSTRACT

In this paper we discuss the interactive installation, 'TxT Book Roskilde', which appeared as part of the Roskilde Festival in 2007. The installation consisted of a user-generated collaborative story projected on to the side of one of the event marquees to which festival goers could contribute via their mobile phones. This type of event invariably presents a number of challenges both in terms of design and deployment of the installation and in this paper a number of the major issues are discussed together with the experience at the festival which inevitably included a great deal of mud as Roskilde Festival 2007 was officially the wettest ever!

Categories

H5.m. Information interfaces and presentation.

General Terms

Design, Experimentation, Human Factors.

Keywords

Mobile, Story, Interactive, Festival, Public Display.

1. INTRODUCTION

Whilst there has been a lot of interesting research into the use of displays used within well formed and relatively stable communities [4] there is less known about their use within large short lasting communities such as those formed at large music festivals which exhibit greater similarities with use of displays in bars and nightclubs for specific events such as interactive art installations [3] or games [5]. In this paper we present the design, installation, and observations of the user experience of a large interactive display project created for the Roskilde Festival in 2007 designed to support community activities within the Spoken Word tent which was a venue designated for poetry events.

The Roskilde Festival is held south of Roskilde in Denmark and is one of the four biggest annual rock music festivals in Europe attracting approximately 110,000 people in 2007. It was originally created in 1971 by two high school students and attracted approximately 10,000 people. The festival was taken over in 1972 by the Roskilde Foundation and has continued to grow attracting approximately 110,000 people in 2007. Unlike many music festivals it is run as a non-profit organisation for the development and support of music, culture, and humanism.

The installation was based on the design of a novel mobile game design [1] produced as part of a research project investigating mobile gaming and viral distribution. The project was inspired by the 1920s Surrealist technique of Exquisite

Corpse for creating accidental poetry and the Victorian Parlour game of Consequences. Users contribute to an evolving user generated story by sending a 160 character entry from their mobile phone which follows (if they so choose) the entry from the previous user as shown in Figure 1. The Roskilde installation differed in operation from the original game in a number of ways in terms of the experience presented to the users rather than the technical solution. The most significant aspect being that in the game participation was spread virally to friends via a Short Message Service (SMS) message and participants were only able to see the last message on their mobile with the complete story created as an artefact on the web for post participation viewing. Whereas at Roskilde the experience was based around a simultaneous participation and consumption model that had previously been explored in a geo-tagged photo mash-up event in the UK [2].

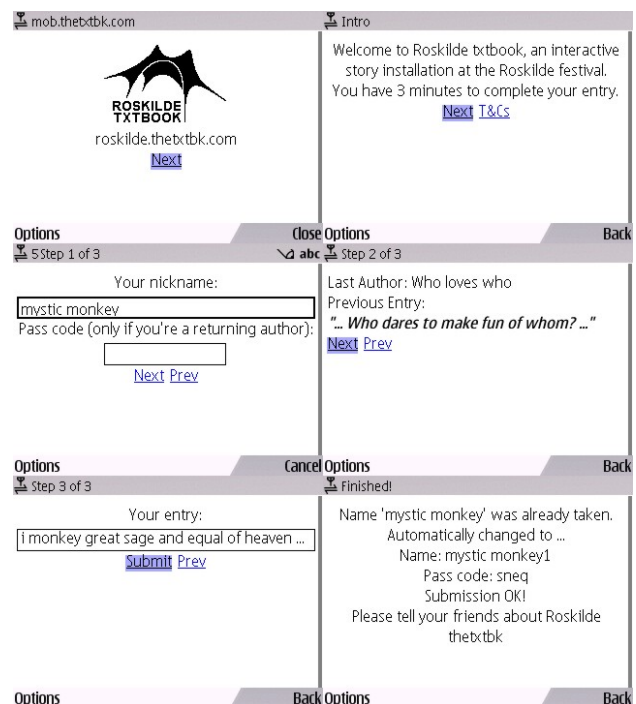


Figure 1. User TxT Book entry from mobile.

The project and this paper are characterised by its multi-disciplinary nature as it utilised ethnographic practices to inform the 'user experience' design and the mobile and web development. The following sections discuss the design rationale and technological solution for the mobile and the display before a short discussion and plans for future work.

2. SYSTEM DESIGN

2.1 Mobile

The original game design was conceived such that it would not require the installation of a mobile client application and although originally conceived around SMS messages, the game

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mechanic couldn't be achieved without the user incurring costs from sending multiple SMS [1]. Therefore a Wireless Application Protocol (WAP) service was developed to achieve the required mechanic with minimal cost to the users but maintaining the ability for users to spread the service to their friends via SMS. Note that a WAP based solution effectively freed the design from the 160 character limitation of standard SMS [1]. To ensure that the collaborative story had the possibility of maintaining some form of narrative flow, only a single entry at a time was allowed and users had a maximum time of 3 minutes to complete their entry, highlighted in Figure 1, before the system times them out and releases the site for the next entry. In the original game this was only indicated on the user's mobile as per the screenshot on left of Figure 2 but as the TxT Book Roskilde was designed for simultaneous participation and consumption this was also indicated on the display as per Figure 2.

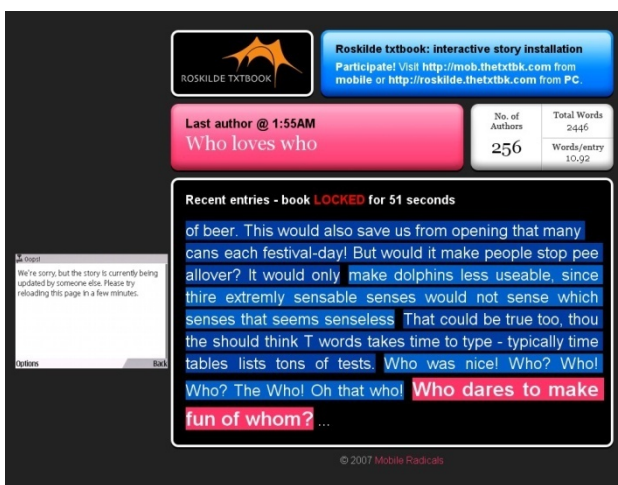


Figure 2. User lockout indicated on the mobile and display

2.2 Public Display

The public display was structured and functioned in a similar manner to the original website [1]. The main difference being the colour scheme chosen which was not only changed to reflect the annual Roskilde Festival theme but also to reflect the particular nature of the display.

It was decided, in conjunction with festival organisers, that rather than using a conventional screen, the image should be reverse projected from within the Spoken Word tent using a large projector as shown in Figure 3. In the lower image you can see the display viewed from the inside of the tent and where the blackout covering had been removed to allow the image to be projected directly onto the canvas body. The rationale for this was that the display would engage people outside who were both passing the tent but also those who may be hanging around outside drinking and socialising.

The lower image of Figure 3 also illustrates the requirement for the colour choices, as the original site colour was predominantly white, with each entry represented in subtle changes of colour through the spectrum this would have been difficult to read when projected onto the tent canvas and therefore a scheme which was predominantly black with high contrast was devised. It is also worth noting that although the tent is white on the inside it was in fact green on the outside as shown in Figure 4.



Figure 3. TxT Book Roskilde display installation.

In 2007 the Festival ran from the 1st until the 8th of July, although the first five days were designated for warm-up and camping with the events at the Spoken Word organised for the 5-8th.

One of the design features originally planned was that the system would not allow multiple entries from the same person so IP addresses were monitored and subsequent entries from same addresses was blocked. However, because of the way the mobile operators in Denmark were allocating IP addresses we could have all users on the same network having the same IP address so this feature was removed after the problem was discovered during set-up on the 2nd.

3. EVENT EXPERIENCE

Amongst attendees, discussion of the Roskilde Festival 2007 invariably starts with the weather as it was the wettest year in the history of the festival. Almost 100 mm (3.9 in) of rain fell during the festival, which was more than double the amount of rain that fell during the previous wettest festival in 1997. Furthermore, half the entire amount of rain came on Thursday the 5th which saw rain from early morning until approximately midnight. This meant that large lakes formed in the camping and festival areas as illustrated in Figure 4.

Given these extreme conditions it is perhaps not unexpected that the weather and subsequent measures taken to ensure the festival site remained open impacted on the installation.



Figure 4. Rain created lakes and mud and users interacting with display

The following table shows the details of the number of entries to the display in the approximately 4 hour period (10 pm until 2 am) the display was active over six days. Overall there were 222 authors writing 2446 words with an average of approximately 11 words per entry.

Table 1. TxT Book entries during Roskilde Festival 2007.

Festival day	Number of entries
3 rd July	36
4 th July	52
5 th July	27
6 th July	53
7 th July	43
8 th July	13

It's interesting to note that the entries were starting to build from the event warm-up but the rain on the 5th is most likely to have caused the drop-off on that day. The display did attract attention for periods on the 6th as Figure 4 and the number of entries show but again this was affected by intermittent storms.

Whilst we were pleased that we managed to complete the project in spite of the awful conditions and attracting some attention we were disappointed not to attract greater numbers of users. We believe this was due not only the weather but also the method chosen for interacting with the display. Our observations of user behaviour highlighted that the requirement of having to access the URL to make the entry created a much greater barrier too many less technologically savvy users than say simply interacting via an SMS.

One final point to note is that only a small number of entries were actually written in Danish and all the rest were in English. This no doubt reflects the multi-national nature of the event but also the fact the information on the display was written in English.

4. CONCLUSION

Perhaps one rather obvious result of this project was to highlight that creating projects for events such as the Roskilde

Festival present a different set of challenges and opportunities for using public displays in less established communities. Further it showed and that even the best pre event organisation cannot foresee overcome every potential problem and those systems must be flexible enough to accommodate change.

One aspect that did emerge was that for high engagement with short lived communities the key is undoubtedly ease of use and despite the increase in technological enhancement of phones the SMS message is still the most likely means of allowing most potential users to participate. Therefore in the follow up version of the system we are planning to use an SMS short code to allow users to send phrases directly to the display via SMS by removing the requirement for them to view the last message of the previous users. Although the result will undoubtedly have less narrative structure to enhance the user experience we will choose an image from Flickr® that has been tagged with a word from the users entries and then blend multiple images for subsequent entries form a visual narrative.

Overall, and despite the weather, the positive responses from both the organisers and participants leads us to believe this model of combined production and consumption of a digital artefact through mobile phones and an interactive display can be seen as a positive intervention to engage committees who form at such events and can enhance the overall experience and as such is a subject worthy of greater study.

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