ABSTRACT
In this paper I present Mobile Stories, a design-led project that explored ways of playfully motivating and engaging theatre audiences in their journey before the premiere of a theatrical play. The project used the art of storytelling and mobile technology to engage the audience in a creative way. The ultimate goal was to investigate innovative ways of connecting theatres with their audiences in meaningful organic relationships that can be sustained.

I discuss the design mechanisms that were developed to enable participation, describe issues and opportunities with the specific approach and discuss the value of the project for the audience, the theatre, and the research on designing for audience engagement.

Categories and Subject Descriptors
J.5 [Performing Arts]; H.5.m: [User Interfaces]: Miscellaneous

General Terms
Design, Experimentation, Human Factors

Keywords
Mobile, storytelling, playful, theatre, audience engagement

1. INTRODUCTION
Mobile Stories is a project that investigates motivational and engaging aspects of involving theatre audiences in a journey before the premiere of a theatrical play. Considering the linear journey of the play from production, to consumption and then to sustained successful reception, Mobile Stories was about the pre-consumption stages. In collaboration with Ankur Productions, Scotland’s foremost black and ethnic minority theatre company based in Glasgow, we sought to create an experience for the audience in which they participated not as passive spectators but as actively involved theatre aficionados.

The project was conceptualized based on the insights gathered during a two weeks research secondment in Ankur Productions. During this secondment, I did extensive research on the challenges that theatre companies face in making and maintaining an audience. At the same time, I explored the concept of intrinsic motivation and sought for ways to connect my insights with a practical design-led investigation. At the time of my secondment, the company was producing a play scheduled to premiere in two months time. This was a good opportunity for designing and carrying out the project in a real theatre context. The notion of playful engagement was considered a fruitful lens through which to look at motivation for theatre audiences and used as a design driving force through the art of storytelling.

The idea of Mobile Stories was to invite selected members of the theatre’s audience to develop a short story related to that of the play that was in production. The audience could gather material for their story using their smartphone, in particular, using audio-visual, Augmented Reality and social media apps. Specific activities were designed to enrich the context of interaction for the participating group of theatre fans. Their stories were uploaded in a YouTube channel and were distributed in the Internet using several social media one week before the play’s premiere. Google analytics was used to collect statistical data such as the number of times the stories were viewed, from which location and platform and which channels directed them to the stories.

In the following sections I will review important literature on motivation, play and engagement and describe which elements were used in the design process, and their role and contribution to audience engagement. I will also discuss design insights, challenges that I encountered, and the overall value that the project created for the audience and the research.

2. PLAYFUL ELEMENTS AND MOTIVATION
In the beginning of the design process, the main concern was to create a fruitful ground that would motivate people to participate.

There are two kinds of motivation, extrinsic and intrinsic. Extrinsically motivated activities are usually pursued because of external rewards such as money. I was particularly interested in intrinsic motivation. Intrinsically motivated activities are ones for which there is no apparent reward apart from the activity itself. Intrinsic motivation is innate and is based on the human need for feeling self-competent and self-determining ([2], [3]). The Self Determination Theory frames intrinsic motivation around three main characteristics: the experience of autonomy; being in control of the environment, competence; being skilled, knowledgeable and effective, and relatedness, being socially connected. Any conditions that support the individual’s experience of these three elements have great potential for motivating and engaging them.
My design approach was initially driven by fostering these intrinsic forms of motivation.

Findings from my secondment, as well as participation in a storytelling contest that the theatre company organised ([4]), led me to select *storytelling* as the main platform for interaction. Creating a narrative is a creative activity that challenges people to develop their skills and be creative, directs exploration and optimum use of abilities. It also empowers the sense of achievement, the feeling of being resourceful and the acquisition of new knowledge.

In addition, there is a certain amount of playfulness involved in telling a story which is itself another way of motivating people to participate. Play, according to Huizinga [5], is an inherent property of most of our interactions in the world. We are likely to be drawn into a playful experience, if not for anything else, just out of simple curiosity, in itself an intrinsic motive. People enjoy playing, and storytelling is a profound reflection of playfulness in many levels.

Theatres have a long tradition of playfully engaging their audience, either emotionally through a play, or by running parallel courses and workshops, which offer audiences the opportunity to develop their skills, be creative and participate in a social experience. Companies such as Rimini Protokoll [7], and Blast theory [1] are great examples of contemporary theatre companies that employ playful elements for immersing audiences in participatory interactive theatre experiences. Such schemas offer a different view of the theatre mechanisms to the audience, make them part of the expressive journey of creation and create a distinct form of interaction that can eloquently shape the future relationship between theatre audiences and theatre companies. At this turning point, and given the existing and emerging new and interactive media platforms, it is important to understand the theatre audience and identify points and models of interaction.

### 3. INTERACTION MECHANISMS

A blurb inviting people to express their interest in the project was sent to the theatre’s mailing list and collaborators, and to its social media channels. We selected six people who were invited to create a story around the play in production studying the underpinning political, social and cultural elements that subsumed its central story. They had regular meetings with the playwright, the theatre director and myself over a couple of weeks. They were given the play’s script in the first meeting which was also an introduction to the project. In particular, they were presented with mobile phone applications available for free with which they could capture material for their story, as well as tools for editing their story, from simple video editing software to online tools such as Storify [8].

One issue that I encountered was that many of the participants were unfamiliar with mobile apps, although they owned a smartphone. Therefore, one week after our first meeting I run a ‘hands-on’ workshop on mobile applications, presenting a range of free apps that can be used for gathering information, from simple audio-visual recordings to Augmented Reality. During the workshop they had the opportunity to try the different applications, and use them to create a short story of their own. The workshop was attended by members of the theatre team, who thought that this was a great seminar for their general audience and particularly for the young creative writers they work with. As a result, they wrote a simple guide of how to make a story using your mobile which they made available online on their blog.

There was no specific brief as to what the story should be about, nor the means they would use to deliver it to the wider audience so the participants were given autonomy to make such decisions on their own. They had autonomy also in using the material or create the storyline they wanted. However, after their initial discussions with the playwright we found out there were a few limitations as to which parts of the play they could reveal in their stories since some parts were key to the plot’s development and were ‘surprise’ elements. They consulted the playwright with regards to this without thinking that it was an impediment to their creativity. On the contrary, placing some constraints helped them develop their narrative.

Two activities were designed to enable the social experience, empower audience-audience interaction and help them in uncovering elements of the play and using them in their own way in their narrative. The social experience was an important part of the design mechanism both because of its necessity in motivating people to participate (relatedness) and also because it enabled collaboration.

Figure 1. The walk in the city
The first activity was a walk through the city of Glasgow, guided by the playwright (Figure 1). The audience followed the traces of the play’s protagonist, passing by and visiting places the protagonist had been. The walk created a direct connection between the imaginary world on the script and the physical urban environment.

During the walk they used their mobile phones to gather visual and aural cues from the places we passed by, as well as location-specific social media messages.

The walk also brought the audience in direct dialogue with the playwright. They had the opportunity to learn more of the play’s characters, discuss the cultural, psychological and societal aspects of their lives, interwoven as they were with the main storyline, and articulate their different perspectives of the story. The walk and discussions played a pivotal role in getting the audience to interact with each other.

The second activity was an invitation to attend the rehearsals (Figure 2). This activity gave them the opportunity to get the actors’ perspective of the script. They could talk to the actors afterwards or in the breaks as well as to the director and, of course, discuss between them.

A Facebook page was set up to maintain their interaction online exchanging feedback and ideas, sharing material in different art forms and keeping a log of the group’s activity. They were very actively participating and the playwright was also actively involved posting comments and notes.

The project ended with everyone attending the premiere of the play, with a free ticket, together with the director and producer. Before the premiere, we all met at the theatre’s lounge where I conducted a semi-structured interview with the participants. I deliberately left one week interval between the interview and the day they submitted their stories online in order to allow them sufficient time for reflecting on their experience. The following section describes their account of the experience with regards to relatedness, autonomy and competence, and discusses issues that were identified as well as design insights that derived from them.

4. AUDIENCE RESPONSE & DESIGN INSIGHTS

4.1 Relatedness

During the one month of creative activity, the participants were very enthusiastic and eager to learn, create and interact. The social interaction with other members of the audience and the theatre team in the process of making the story was, according to them, the most valuable aspect of the project. Each participant felt that they contributed not only as individuals but also as a team working alongside the theatre team.

As individuals, the participants had different backgrounds ranging from psychology to mobile phone design. They all felt they learned from each other’s background through the project’s activities and enjoyed getting to know each other socially. Their interaction happened mainly in person during the activities and continued online through the Facebook group page and exchange of emails.

The continuous dialogue with the playwright, the actors and the theatre staff was a valuable and rare opportunity for them to feel actively involved, as if they were part of the theatre team. The participants mentioned the significance of the constant intellectual engagement with the playwright and actors not only as support towards the creation of their stories but also as an enhanced interaction with the theatre. One participant acknowledged that ‘it is really good way of engaging with someone’s work. If you are just a consumer, you just consume that work without having an input into it. You wouldn’t have the same kind of engagement in it and the same level of understanding and interest inside into it’.

Their involvement, through the project, in the backstage preparations gave them a better understanding of the play. One participant said:

‘You have a much more situated view of the play; it is not something in abstract. Even before seeing it, I have a better idea of the character than if I had just been reading the script’.

From these observations one can identify the importance that the social connectedness between the participants and between their team and the theatre team played in engaging them. The sense of social connection could be further enhanced with the dissemination of their stories over the Internet if the project was of a larger scale. This can be done mainly through the social connection mechanisms that YouTube offers (i.e. comments, likes, follows). The videos had about 150 views in the first week from places as far as Canada and Australia. However, they did not gather any comments that would enable further interaction with international audiences. It is anticipated that in larger scale projects of similar nature, this interaction will be easily established and its design should also be given much attention.

4.2 Autonomy

All participants were satisfied with having the freedom to choose the content and narrative for their story, which was fostered by the designed activities, as well as constant technical support. They were free to produce and manipulate their own material. In addition, I presented to them a variety of applications for both processes to choose from. The only limitation, as mentioned in section 3, was that some parts of the play could not be used because they would give away certain twists of the plot. However, this was moderated through the discussions with the playwright.

Figure 2. At the rehearsals
The playwright’s involvement supported the participants in making their story on their own. One participant commented that ‘[The playwright’s] involvement was very important because he gave us his insight, and he was eager to take part and showed a lot of enthusiasm about the project. This gave a lot of encouragement to us to have the freedom to express our views, to pose questions’.

The Facebook group further supported autonomy as it acted as a platform for feedback and discussion as well as an update tool for each participant that each of the rest could view.

Furthermore, there was not a strict deadline for submitting the stories. They were asked to finish their stories ideally before the play’s première in order to upload them online so that their work is disseminated over the Internet making them ambassadors of the play. They all uploaded their stories on different days about a week before the première, which indicates their commitment to the project and its goals.

The autonomy they had in making their story, in combination to the participant’s interaction with the theatre team through discussion and consultation, allowed them to feel less as audience and more as collaborators of the theatre team. Using their skills and personal perspective to convey their story enhanced this feeling.

4.3 Competence

It was very exciting to see each participant’s skills and approach reflected in their choice of story, character portrait and way of assembling the material.

The participants had the opportunity to develop their skills in story telling, video editing and mobile apps. The active involvement of the playwright and his eagerness to explore this model of interaction with the audience enriched the creative process for them and added an educative angle to it.

Learning about mobile apps and different uses of mobile technology was very educative for the participating audience. Although they did not use some of the ones presented during the initial workshop, they were eager in experimenting with them. For example, one participant thought of making her story read in a physical manner through QR codes scattered in the city. Another participant was interested in the opportunity of ‘leaving traces’ in a place, such as images, with a smartphone that can be read by others through Augmented Reality apps.

One remarkable observation was their feeling of an increased sense of ownership and identity that emerged through the whole process, which alone can be a great motive for participation. According to one participant, ‘[the process] gives you a sense of ownership over the story, as if it is part of your story in some way’.

The sense of achievement and identity were further supported by the dissemination of the stories over the Internet, which made their work known to a wider audience.

Empowering competence in these ways engaged the audience deeper into the storytelling experience, and changed the traditional relationship between the theatre company and its audience into a more collaborative and educative one.

4.4 Design Considerations

One issue with the making of the stories was that, although all participants decided to use video to display their stories, they were not familiar with video editing tools. I helped them with the final editing, however, the issue led me to think about simple mechanisms for editing video easily on a smartphone. These design insights can be used for future mobile storytelling apps.

Another challenging issue for the project was the time required from the audience. They participated in the project in their free time and the period of one month offered them slightly little time to prepare the stories. Sometimes this can be deterring and a larger period of time is needed for the audiences not to feel overwhelmed. This depends on the amount of time and way of designing the surrounding activities as well as the number of audience members that participate, so it is a parameter that needs to be taken into account in the design process.

Mobile Stories was a small scale project. In order to apply the same idea to larger audiences further design considerations for the structure, the time and the interaction mechanisms are needed. For example, it is probable that the activities that enabled audience-audience interaction should be redesigned to accommodate larger audiences perhaps moving towards online platforms rather than offline or a combination of those. Game design strategies could also be applied. Irrespectively of the interaction mechanisms, the power of storytelling as a skills enabling/development tool, the social interaction and the autonomy that were used to motivate and engage the audience in this project proved to be appropriate structure for an engaging experience.

4.5 Evaluation

An initial research part of this project was about identifying the extent to which the stories could promote the play. One method for investigating this would be to evaluate how many of the audience that attended the premiere and the consequent performances, heard about the play because they had watched the stories online. This evaluation remains input for further research, as I would seek to explore an appropriate method for eliciting accurate results in a playful manner. This method would involve asking on-site, in a non-disruptive manner, the audience that will visit the theatre and combine this data with the number of times the videos were viewed online per unique visitor.

The data that I collected using Google Analytics consisted of the page views, number of unique visitors, countries from which they had visited and platforms they have used, and revealed an international audience who watched the stories, the majority of whom were from the UK. However, the number of video views was relatively low to use them in a combined on-site/online evaluation. Working in larger scale and designing the evaluation method carefully will ensure more fruitful results.

For now, it was proven that the process itself created value both for the audience and the theatre, and that establishing such collaborations with the audience creates a meaningful relationship that can eventually promote not only individual theatre productions but also the brand and ethos of the theatre company itself.

Overall, the participants commented positively on the potential of engaging theatre audiences in such creative ways. One said: ‘I just felt the possibilities are endless and I really enjoyed the dialogue. It is great to see that these projects are taking place. From my experience as a person from the audience, people do value this dialogue between the audience and such projects’. Another considered this process as ‘a new art form. I would like to see more of that’.
According to their responses during the semi-structured interview that was carried before the play’s premiere, the relationship that the audience developed with the theatre team increased the audience’s loyalty towards the theatre, evident in their will to participate in similar projects again as well as in attending other performances of the theatre team a few months after the completion of the project.

5. CONCLUSION
I presented a design project that explored motivation and engagement of theatre audiences in their journey before the staging of the theatrical play. Combining the art of storytelling with the power of mobile apps, led to a successful interactive experience that was received very well by the participating audience, the theatre team and the artists involved. The practical exploration revealed challenges for interaction design in the theatre context and produced insights on the design and use of mobile technology for such purpose. Equally, it proved the potential of designing playful creative activities for an engaging audience journey before the visit to the theatre. The approach showed that such models of connecting theatres with their audiences may lead to, and successfully maintain, mutually beneficial, meaningful relationships.

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7. REFERENCES
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