Cinema-going Trajectories in the Digital Age

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The activity of cinema-going constantly evolves and gradually integrates the use of digital data and platforms to become more engaging for the audiences. Combining methods from the fields of Human Computer Interaction and Film Studies, we conducted two workshops seeking to understand cinema audiences' digital practices and explore how the contemporary cinema-going experience is shaped in the digital age. Our findings suggest that going to the movies constitutes a trajectory during which cinemagoers interact with multiple digital platforms. At the same time, depending on their choices, they construct unique digital identities that represent a set of online behaviours and rituals that cinemagoers adopt before, while and after cinema-going. To inform the design of new, engaging cinema-going experiences, this research establishes a preliminary map of contemporary cinema-going including digital data and platforms. We then discuss how audiences perceive the potential improvement of the experience and how that would lead to the construction of digital identities.

Cinema-going experience. Cinema. User journey. Trajectories. Cinemagoers. Rituals. Digital platforms. Digital identity.

1. INTRODUCTION

The contemporary cinema-going experience might look like a well-known topic but it seems that there is no previous research that establishes and unfolds how it takes place in the digital age and which digital platforms and data it involves. In current cinema research, an issue attracting attention from scholars is the 'death of cinema' (Cherchi, 2001) and how the high costs of going to the cinema (Farmer, 2015), the rapid increase of transmedia and multiplatform projects (Atkinson, 2014), the changes in distribution, circulation and sharing of content (such as in HBO and Netflix models) and the appearance of new practices (Atkinson, 2014) have led to a gradual demise of contemporary cinema and cinema-going.

According to Nakatsu, the audience experience has turned from passive to more active throughout the years, due to the emergence of media innovations (Nakatsu et al., 2005). Multiplatform entertainment makes the experience of the movies more interactive; for instance, Odeon's Cinime (Cinime, 2017) and Disney's Second Screen (Disney Second Screen, 2017) open up new avenues for transforming the cinema-going experience. Cinema-going experience has been researched in the past but within a historic or industrial context: for example, how cinemagoers followed rituals in the past (Kuhn, 2002) or how the space of a cinema was structured and what social implications lay behind its architecture (Jones, 2003). Contemporary cinema-going, as an experiential journey that includes cinemagoers' digital data has not yet been explored and this is the innovation of our research: mapping the contemporary cinema-going experience and activity using qualitative and design-driven methods.

We follow Maggie Valentine's perspective (Valentine, 1994): 'The experience of "going to the movies" equalled and often surpassed, what was on screen' (Trailer: xii) and we adopt the concept of a trajectory to describe the cinema-going experience.

In the field of Human Computer Interaction (HCI), trajectories are often discussed as a framework for user engagement in cultural experiences (Benford et al., 2008; 2009; 2011; Fosh et al., 2013). Velt et al. surveyed the use of the trajectories framework to help categorise relevant work (Velt, 2017). We are mostly interested in participant trajectories which provide a way to track how users self-report their activity (Benford et al., 2008). Previous work on mapping ancient rituals has demonstrated the significance of tracking experiential journeys/ 'trajectories' (Benford et al., 2009) utilising psychogeography and the contextual environment to enhance cultural experiences with self-reflection methods, physiological measurements and mobile devices (Kefalidou et al., 2014; 2015). In a similar manner, cinema-going facilitates the exploration of experiential paths that synthesise impressions, interactions and personal rituals that begin before arriving at the cinema venue, while being at the cinema and after.

Due to the rapidly increasing hours spent online and the availability of screens around us, cinema-going trajectories are full of interactions with digital platforms and media that create a 'transmediated self' (Elwell, 2013), which is defined by our individual digital identity. Digital identity construction has received much scholarly attention but has not been adequately explored in the context of cinema and cinema-going. Digital identity is a mixed, abstract term that can be encountered as and linked with

digital signature, digital trace, digital footprint, shared digital data, digital self-representation, to name a few, depending on the context and the field that refers to it. Scholars from different disciplines are seeking to understand digital identity as it can be perceived either as a technical term related to computer science and information security and management (for example see Windley, 2005; Whitty et al., 2015) or as a term with a broader social significance, referring to a person's online existence, practices and behaviour (Turkle, 2011; Fehér, 2015).

Computer Science (CS) and HCI offer opportunities for designing innovative technologically-driven interventions in Film Studies (FS). Although film industry has made a lot of progress in terms of technical and technological innovations, the cinema-going experience has been neither researched in this context, nor 'renewed' to fit the modern standards of entertainment. As such, this paper focuses on presenting how cinemagoers -with different taste and use of digital platforms- perceive the ideal cinema-going experience. We then explore digital identity based on the assumption that it corresponds to a holistic digital trace that cinemagoers leave behind while following a trajectory consisting of both physical and digital interactions. With this work, we aim to inform future research to explore ways of better utilising emerging experiences related to cinema-going. We do that by using the traditionally-chosen in FS qualitative method of focus groups and we combine it with participatory design, a common design methodology in HCI.

2. RELATED WORK

In the field of FS, Evans conducted empirical research, combining questionnaires and focus groups, with cinemagoers of three independent cinemas in the East Midlands area (Evans, 2011) to elicit their insights and tastes. Evans found that cinemagoers can form communities that help them construct cultural identities. In this case, the members of these communities share common "attitudes, ideologies and codes of behaviour" (Evans, 2011: 344).

Alongside with the formation of identities as part of cinema-going experience, cost-related issues appear to be part of the experience factor. According to a large-scale YouGov research (Farmer, 2015), a decrease in cinema attendance is due to high costs on cinema services.

Existing research in CS and HCI is primarily focused on technological advancements in the movie theatre and the screening room (e.g. 3D movies) and largely concern the "while watching the movie" part. Film technology, such as innovations in film displays (e.g.

3D screens) (Mendiburu, 2012; Yang et al., 2016) and film processing (e.g. visual special effects) (Bottomore, 2012) has also been a focus of research. Related work has also explored the design of experiences that engage with cinema audiences, limited though to HCI-led interactive cinema experiments with artists (Nakatsu et al., 2005; Häkkilä et al., 2014a; 2014b) and cinematic exhibitions using geospatial analysis and data visualisation (Arrowsmith et al., 2014a; 2014b). The first interactive cinema system was Kinoautomat, where audience could actually choose between two scenes and influence the flow of the movie (Kinoautomat, nd).

Häkkilä et al. (2014a) created a prototype that gives cinemagoers the opportunity to use their mobile phone (by shaking or tapping it) to collect movie content information. They also conducted a background study with 30 participants exploring cinemagoers' practices with interactive technology (interactive pillow) in the movie theatre (Häkkilä et al., 2014b). They found out that tangible user interaction can be used in the movie theatre to increase enjoyment and capture audience's fear and surprise when the pillow is squeezed. Additional work on sensors was conducted by Ablart et al. (2017), who implemented mid-air haptic technologies in the viewing experience, using a 3D printed box that allows tactile stimulus depending on movie flow.

Furthermore, Oliver (2016) explored how communal activities develop through and within theatrical and cinematic interactions and performance focusing on affect manifesting on and off-screen. In terms of cinema-related data, Arrowsmith et al. (2014a), initially compared four studies on how historic cinema data are visualised on the industrial dynamics of post-war exhibition and distribution. They investigated and visualised, global data performance (e.g. international flow of film screenings of 68,000 films from 48 countries), captured for a period of over 18 months (Arrowsmith et al., 2014b). Furthermore, Stephen Follows (2017), writer and producer, maintains a blog where he uploads reports and articles on big data and statistical analysis related to cinema and cinema-going. Lastly, Aylett et al., explored how filmmaking can be used as a medium to depict people's interaction with their personal data and their digital identities (Aylett et al., 2016).

While the above research has offered unique innovative perspectives for transforming cinema experiences, these efforts have either approached cinema experiences from a FS-based perspective or an HCI-based perspective. What we attempt to do within this research is to understand cinema-going experiences (as opposed to only cinema experiences) accounting for and incorporating digital

data values to inform a multidisciplinary intervention framework that enhances cinema-going experiences. Furthermore, we explore the ritual that surrounds cinema-related activities emphasising that cinema experiences constitute part of the overall cinema-going experience. In this paper, we address the above by combining the fields of FS and HCI, conducting empirical research with actual audiences. To sum up, we use a novel approach to explore a novel area by focusing on the cinema-going journey, which hasn't been researched before.

3. METHODS

The study involved two workshops segmented in three phases: 1) short questionnaires, 2) focus group (presentation and discussion of low-fidelity prototypes: scenarios and personas) and 3) participatory design. Ethical permission was obtained from the University of Nottingham (UoN) departmental research ethics committee.

We needed to capture specific data from all the participants individually, something that could not be done in a group level for time-management and privacy reasons, hence we used questionnaires. Then, we chose to conduct focus groups because they provide opportunities to delve into the thoughts and practices of cinemagoers, providing rich data with regards to cinema-going. According to Greenbaum (2000), focus groups are very useful in the stage before creating a concept, and for understanding the "why" behind a specific group of people's thinking, attitude and behaviour, which in our case is the cinema audience. We chose focus groups over other methods (e.g. interviews) because we wanted participants to interact with each other (Greenbaum, 2000), to brainstorm and generate insightful ideas. Additionally, we decided to use the low-fidelity prototypes during the focus group phase in order to trigger participants' imagination by visualising potential scenarios. Personas have been found to be more engaging for users, helping them to understand better the context of the conversation (Pruitt & Grudin, 2003), communicate better in the group and increase end users' focus (Long, 2009). Finally, participatory design took place because user involvement has positive effects in the outcome of the research. For instance, we could get more precise and concrete user requirements and actively involve and empower users as designers (Kujala, 2003).

Two workshops, consisting of 8 and 6 participants respectively, were organised at UoN and at Broadway cinema's premises in Nottingham city centre. Broadway cinema is considered to be an independent art cinema, which means that it projects specialised content such as foreign-language or experimental films, archives and documentaries (BFI, 2015). Furthermore, art cinemas mainly host cinemagoers, who appreciate the whole movie theatre experience and not only for watching a film.

3.1. Participants

Fourteen cinemagoers were recruited in total (7 male and 7 female). Participants were internationals (6), Europeans (8) –of which native British (6)-, and had a range of ages (five 18-25 years old, five 26-35, three 36-45 and one 56-65). Participants' recruitment was made through Broadway cinema's newsletter and through UoN. All participants had to be frequent cinemagoers (i.e. that go to the cinema at least once per month) to take part because we wanted to elicit information from more 'experienced' cinemagoers. Participants were then divided into a 6-participant group and an 8-participant group depending on their cinema preference (art venues or any cinema including independent, art, multiplex). Hence, 5 out of 6 participants of the first workshop that took place in Broadway cinema identified themselves as "independent cinema/ art venue fans" that only go to a specific art venue regardless of the movies it projects and 7 out of 8 participants of the second workshop that took place in University of Nottingham were self- identified as "film fans" that choose which cinema to go to depending on the film they want to see and not based on the movie theatre. Therefore, the sample is representative of the general cinema-going public as it consists from all types of cinemagoers who go to all types of movie theatres: art/ independent/ multiplex.

3.2. Study procedure

Each workshop lasted approximately 1h 30 minutes and was audio-recorded. Participants were first introduced to the purpose of the study and the three phases of the workshop. They were then asked to write keywords that define cinema-going on a whiteboard for further discussion. This lasted for approximately 10 minutes.

Afterwards, participants were given 5 minutes to complete a short questionnaire to capture how often they go to cinema, which cinema they most frequently go to and lastly, how they self- identify (e.g. as film fans (i.e. going to *any* cinema to watch a movie because they love cinema-going) or art venue fans (i.e. going to an *independent* cinema such as Broadway because they love the venue and the specialised content it projects).

During the next phase (approx. duration 10mins), we presented low fidelity prototypes to participants. More specifically, we created personas (example in Figure 1) and placed them within three cinema-going scenarios (example in Figure 2) that we then discussed with participants. The personas and scenarios were designed based on primary data given to the researchers by Broadway and followed

the guidelines from (Braz, 2005; Crothers, 2011). This set of data segmented the cinema audiences into categories and involved specific practices, which informed our design. A printed copy of each persona was handed out to each participant and included: Printed photo of the persona; Name; Personal information; Personal profile with the key activities related to cinema-going; Key attributes; Internet usage; Persona's goals.

Figure 1: *Persona No1.*

Figure 2: *The Persona No3 scenario.*

Persona 1 is Katie Cheng, a very tech-savvy, young international student who uses her mobile phone a lot during the day. In her scenario, she goes to the movies with a friend and has drinks in the cinema while taking selfies to post on social media (figure 1). Persona 2 is Sally White, married with Josh. Together, they represent a middle-aged couple who go very frequently to a specific art cinema and book their tickets online in advance. They enjoy a full experience with dinner and drinks within the venue. Persona 3 is Frank Green from the Green family, consisting of the parents and two young children. In the scenario, they decide to book a movie online. They have a bad experience since they wanted to eat at the venue's restaurant but there was neither kids menu nor baby seats available and that's why the father gives a bad venue review on social media.

During the third phase, participants were given 15 minutes to individually-design their own ideal cinema-going experience and scenarios to illustrate what they like and dislike in relation to the cinema-going. We provided them with different materials to use (e.g. colour pencils, sharpies, whiteboard markers) for their designs. At this point, it was clarified that they should describe how they perceive cinema-going experience a) as individuals and b) taking into consideration the public (including interactions).

All the activities above were accompanied by discussion with the participants. A discussion guide was prepared to track the appropriate time that should cover each of the main aspects we were interested in (Greenbaum, 2000). Discussion structure within the workshops was organised around five key themes that were identified from current literature (for example Kuhn, 2002; Evans, 2011; Atkinson, 2014; Fehér, 2015;) and were also based on our research questions: cinema-going rituals, value, taste and personalisation, trust and digital practices & identity. Under this framework, participants were asked to comment and discuss related issues to each one of these individual themes.

3.3. Data analysis

All data collected is qualitative in nature. Firstly, the audio data was transcribed; transcriptions and researcher's notes were transferred to excel spreadsheets. The data was thematically analysed (Ryan & Bernard, 2003; Braun & Clarke, 2006). Theme identification was chosen because it facilitates a focused yet quite open approach to analysis. The first author followed the procedure of inductive coding of the data that created patterns. The set of codes was then adjusted, reviewed and simplified according to phase three of (Braun & Clarke, 2006). Codes led to multiple predominant themes, from which three global themes were identified.

4. RESULTS

4.1. Emerged themes
The identified codes mapped into three themes: cinema-going as a ritual (eg. what is included nowadays); cinema-going as part of one's identity (eg. what is expressed by each cinemagoer); and

cinema-going as a social activity (eg. social implications of cinema-going and community spirit). Below we present in detail each of the key themes.

4.1.1. *Cinema-going Rituals: demarcating the contemporary cinema-going experience*

Throughout the discussion, participants described their usual practices regarding cinema-going. It was revealed that engaging with several digital platforms before going to the cinema, while in the cinema space and after leaving the movie theatre is an inextricable part of the cinema-going experience. Their description highlighted the existence of a cinema-going trajectory that includes both physical and digital interactions and is not space-limited. In the table below, we present the digital platforms that cinemagoers use during this journey.

Table 1. Digital platforms and activities with which cinemagoers engage

Platform	Activity
Video-sharing websites eg. Youtube, Vimeo	Watch trailers
News Media	Read reviews of popular film critics
Streaming websites	Function as forums for discussion between film fans
Websites and Apps eg. IMDb, Film Affinity	Keep record of films watched
Online encyclopedias eg. Wikipedia	Search information about the film (eg. a historical event that happened in the movie)
Social media eg. Facebook, Twitter	Check in and record where, when, with who one went
	Search if friends are around
	Initiate movie discussions
	Post pictures related to the cinema or the film
Cinema's website & app	Browse what's on
	Check timings
	Book tickets
Discount websites eg. Comparethemarket	Search for offers

In order to provide an understanding of the cinema-going trajectory we divided it in the three categories below.

Before going to the cinema
Cinemagoers engage with a variety of activities before going to the cinema such as reading reviews online, searching online for information on the film's contributors and planning (with friends, partner, family or alone) through browsing the leaflet at the cinema's website or physically.

> 'A lot of the time, obviously it's a case of looking at what's published out already on the monthly leaflet and on the website'. [P12]

> 'Usually, the movies I want to watch I 've read up on them before, like I usually follow lots of films on Facebook or Instagram'. [P10]

While being at the cinema
This is the part of the journey that rather involves physical activities such as buying drinks and food, getting the tickets from the box offcie, talking to staff, finding the perfect seat in the screening room, taking notes to review the film later. However, some participants reported interacting online quite a lot while at the cinema space. For instance, taking pictures of the poster, or of a festival and posting them on social media, checking-in Facebook stating with whom they are with and what they will see:

> 'If it's something I 've been geeking a lot about for a while, I would take a photo of the poster. For the new Star Wars, I plan to watch all the others and then watch it, so that would be part of my ritual'. [P5]

> 'If I know I am reviewing this film, I will take notes while I watch it. I got to take that seriously. Also, I will go to the cinema alone.' [P7]

Nevertheless, all participants collectively denounced the use of mobile phones and any interaction (apart from live music like sing-alongs) in the room: '*one thing that drives me crazy is mobile phones, people not switching off their mobile phones during the film*' as P2 said.

Other things that concerned participants were positive and negative cinema-going experiences regarding comfort (e.g. cushioned seats or not enough leg space), food & drinks, costs, ease & practicality, cinema design (e.g. cozy architecture and interior design), screening environment (e.g. big screen, darkness, immersion and good sound), films variety, and interaction with cinema staff.

In terms of food and drinks, most participants thought this is an indispensable part of the cinema-going experience and they suggested more options to be introduced in cinema menus like 'coffee' [P3] or 'hotdogs' [P2]. However, there were few (2) that believe food in the screening room is annoying and should only be consumed in specifically designed areas or in bars/ restaurants situated nearby. Practicality issues included providing a way through technology for 'sustainable tickets' that wouldn't be lost easily.

> 'Some sort of system for tickets so as not to have to "hold on to them". I personally have a problem with little tickets, I lose them or I forget them' [P1]

After leaving the cinema
It was highlighted by many participants that the period "after the cinema" is a time to drink with friends, go for food, discuss the film, write a review, record online their film history.

'Every time I was watching a movie, I was checking in on IMDB, that I watched this particular movie, because I wanted to have a recollection of the things that I 've watched.' [P9]

'Reviews, I definitely do! And I tend to have a similar opinion to a few reviewers. Also, history of my filmgoing, when/ where/ who I went with'. [P6]

Nevertheless, some claimed that the cinema exhibition industry hasn't catered for an "after" experience for cinemagoers –and that's why participants came to fill this gap with their ideas in the last phase of the study.

All the above shape a path where each individual cinemagoer leaves their digital trace. From the data presented, we understand that the way in which a cinemagoer behaves online is a means to detect and explore their digital identity and use it in order to enhance and personalise their experience.

4.1.2. Cinema-going as a factor shaping identity
Cinema-going can be seen as part of one's identity, which could be a collective, a solitary or a performative identity, expressed through cinema related practices. Some participants talk about cinema-going as a thought-provoking act and integral part of their personality and its development. In this case, it could be characterised as a solitary activity: to immerse fully in a movie, to avoid discussion, or as a result of your specific movie taste.

'It kind of starts off as a web; you like somebody's cinematography, or a director, an actor and then it allows you to then say, "Oh I really like that actor, I'd like to see some of the films with them" and it starts like that and allows you to then investigate them, start a relationship with them'. [P14]

Moreover, cinemagoers develop a collective identity, feeling they are part of a community which shares the same interest and maybe also taste.

'Cinema-going is time for me, but also communal & shared experience. Sometimes, a personal relationship, a one to one experience'. [P14]

Finally, depending on their rituals, they develop a performative identity, which they adopt and follow during all cinema-related activities. This performative identity might be expressed in different ways: talking about cinema when you talk about yourself, defining which type of cinema you go to, who you go with and why, differentiating yourself from people with other taste, keeping up with the film industry, having a certain online presence. For instance, if a cinemagoer self-identifies as an "art cinemagoer", this means that their taste in art venue content defines how they are expressing this part of their identity. The way they communicate their cinema-going activity online is also a part of this performative activity and what they want to show to their social environment.

'I am sure that all of us have enjoyed films that are not as, hm I don't like the name but "Artistic", but in a website that is all about artistic filmmaking, we wouldn't point out that we liked a non-artistic film, so I believe that it has to do with this as well, I believe this is the identity we create. […] For me, a film is about learning your own self and exploring what makes you, as well as learning in general, especially from historical movies'. [P9]

When the participants discussed about cinema memberships and prices, the notion of "the good cinemagoer" came up. It was made prominent that you are a good cinemagoer if you pay for your membership. An inevitable question was raised here: is money defining how "good" a cinemagoer is? Either way, there were many cost-relevant comments when talking about likes or dislikes: '2 for 1 evenings' [P1], 'affordable' [P4], 'relatively cheap' [P6] 'overpriced drinks [P4]', 'too expensive' [P13] which indicate that cost is a factor that affects cinema-going frequency and type of visit and consequently, is related to a cinemagoer's performative identity. In fact, participants were concerned about how cheap or expensive going to the cinema currently is, mentioning that it can even take 20-25£ per visit 'which, sometimes makes you wonder "can/ do I want to spend this to see any other film or when I go, I specifically watch the film that I want to"?' [P13]

Apart from the findings we presented above, participants were also asked during focus groups to describe in their own words what is digital identity for them. This academic term was used on purpose as participants were perceived as "tabula rasa" and we aimed to explore their approach, experiences and explanation of the term before discussing about it with them. They perceived it as having a qualitative or a quantitative content.

'It's part of ourselves that we project in the digital, which is very broad. […] I believe it's context sensitive basically […] Identity has to do with what we create as well and what we create, at least at the digital space, is not only related to the literal meaning of create but it has to do what pictures we have to use for our avatars for example or what names we decide for ourselves or of course which movies we point out that we like' [P9]

'Digital media and the internet and computers […], they are either this or that, there's no grey, there's no color, no definition, no nuance, whereas your real life identity can do all of that. So, digital identity says you saw that film, it doesn't say yes, but I hated it.' [P14]

Digital identity was also associated with more technical elements like cookies.

'Digital identity: I just think of cookies, like traces of what you've done. Just who you are, what you've done, where you've been.' [P1]

Finally, there was an interesting example of a participant who talked a lot about digital interactions and practices (data sharing and rituals) but they thought that all those have no relation to the cinema-going experience even though they engaged in most cinema-going related activities online (i.e. buying a ticket, booking a place, reading reviews, searching for information about the film online, checking in Facebook etc.). Although they had a strong cinemagoer digital identity, they had a controversial view about it, arguing that the way they use digital technology for cinema-going is 'purely logistical' and has nothing to do with the experience [P6].

4.1.3. Social implications of cinema-going and community spirit

Following on from above, where a cinemagoer might express their identity either as collective or as performative through cinema-related practices and taste, three distinct social aspects of cinema-going were highlighted. They might go alone and become part of the venue's community; go with friends, family or partner; or combine cinema-going with other social activities (e.g. food or drinks after the film).

There was again a distinction that was revealed in the analysis: the majority of the participants within the general cinema group focused on going to the movies with friends, whereas participants of the art cinema group touched all three aspects of sociability of cinema-going. They explained what the social implications were and how these had an impact on them when they went alone compared to when they went with friends/partner or as part of cinema's community.

'Community: talking to others before and after film. Alone: I see a lot of films on my own & enjoy the time on my own but usually surrounded by other film fans. Friends: Catching up with friends by seeing a film together'. [P10]

'I think I really like going for the community, even though I might not talk to anyone there, it's just still this kind of experience' [P12]

The theme of community was very dominant in their whole discussion. They thought the community behind the more "art/ independent" movie theatres is cinema-going's heart, and should be developed and expanded in many ways. Among others, the feelings of intimacy, warmth and familiarity emerged from both groups as related to the community and its importance. They confirmed this community significance on many occasions, and it is obvious in their design ideas, which are presented in the section below.

4.2. Towards audience-driven design to enhance cinematic experiences

Before starting the third phase, participants were asked about their preference as to which kind of data would be interesting, useful and would add value to their experience. Some of the items mentioned were recommendations and reviews from fellow cinemagoers, fan art, and further information about a film creation.

'If for example, people could create content for a particular film like write a poem, a review, anything, and it comes back due to popular demand for example, it would be interesting to see quotes from reviews probably, or pictures or fan art that people made for that particular film'. [P9]

We also talked about how they feel about sharing their data. Interestingly, while 5 out of 6 of the participants of the art venue workshop agreed on wanting to have absolute transparency and control of who uses their data, why and when, participants that choose mainstream cinemas didn't think sharing personal data digitally was something problematic. They needed a motive though, some kind of reward for giving away their data.

'I would be willing to give my email address if they wanted to email me with newsletter and things like that but I don't see the point of them, trying to enhance the community or something similar' [P2]

'The issue we are facing is whether we talk about I wouldn't mind share this data but whether or not, your data is out there, but how the company can actually utilise this data and make it in an interface that is actually useful'. [P8]

'I wouldn't use [the app] if there would be nothing there for me. It should make my life easier'. [P3]

It seems therefore, that responsible and transparent data capture correlates with the level of trust from the part of the audience. Trust is an issue that can also be ensured through digital platforms, managed carefully by cinemas' teams, otherwise digital interactions can lead to a negative experience. One participant felt the need to be heard through frequently contacting venues they visit to check wheelchair accessibility. Unfortunately, sometimes they were treated with no respect and made them feel segregated and deceived, leading to lower trust towards the venue.

'There are certain companies that are good and they respond to you positively using Fb, I think you get more attached to those companies. What really winds me up is that they are trying to cover up the story by asking me to email them privately rather than actually having it transparent on their Facebook page'. [P13]

During the last workshops phase, participants created drawings and discussed ideas of products or services that would contribute to having an ideal and "enhanced" cinema-going experience. There was an interesting differentiation between the two groups as during the first one, mostly consisting of art venue audiences, participants collectively discussed and developed their idea and everyone pitched in their contribution, whereas in the second group, consisting of people who would go to any cinema to watch a movie. participants designed individually the features that would complement their cinema-going experience. The discussion flow followed a path concentrating on personalisation and community spirit, where participants raised an interest in mobile alerts, mobile applications, and accessibility issues. Many ideas were discussed but we present the ones that attracted everyone's interest and triggered further brainstorming.

Regarding participants of the first group, their final idea entangled notions of digital and physical presence and focused on the social aspect of cinema-going and the value of digital innovations and data use to the community. They were concerned with privacy and transparency, e.g. where would the data go and what would they be used for and they wanted to reassure that there would be an option to opt out from sharing personal data, such as location, with the public. Before carrying on with a final idea, participants identified firstly, the existence of a community within Broadway (counting themselves as members of this community) and secondly, the need for digital facilitation of discussion amongst the community members, which might eventually add value to their social identity.

> 'I believe enabling interactions between people like talking, discussing about the film, would create a lot of interesting results in the end, because we would get to know other people around our city and this cinema". [P9]

> 'There is a need obviously for dialogue and discourse around the film, often you might be by yourself, spending a lot of time digesting that thing, and then you have the need to kind of connect with somebody else and we often are fond of this kind of relationships'. [P14]

Their final idea was a personalised mobile app where they could opt in and opt out in every feature. They preferred a mobile app because *"you need something really accessible, because that's probably the first device that you would pick up"* as P13 said. However, when they finalised it and they had to answer if they prefer to access it on a website for desktop use or in a mobile app, they all agreed that they would equally access both depending on the situation and that the app would be additional to a system where the cinema would record and keep

some data of each individual. The features that they wanted to add to that app would be:

(i) An alert that gives the opportunity to request 'bringing back films' that have been projected but they missed them. Push notifications/ alerts would act as reminders when these films are going to be projected again so they would avoid disappointment [P10, 12, 14].

(ii) A "depository of ideas" [P14] similar to a movie discussion forum, where members of the cinema community could discuss online which movies they saw, review and recommend films and then facilitate their physical connection as well: maybe meet in person and watch a movie together. This feature was also supplemented by an alert that would be connected to their personal profile, whereby the movie they watch would be registered in the system, and when it would end, this alert would inform them that there are other people that just finished the screening and are sitting in the x corner of the cinema's bar to discuss the movie/ common interests.

> 'I suppose this alert that we talked about, in order to be able to say I'd like to see that film but I missed that or I want to see that again. I think this would be a really big thing for me'. [P10]

> 'You could have an app where before you go into the film, you say, would you like to discuss this film with like-minded people and look at the gps settings. You can get an alert afterwards, meet at the bar in the corner!' [P12]

> 'Cinema is a community builder, a communal thing. It's about bringing communities together in a communal place. The thing that I find amazing about social media nowadays, is this idea that brings people closer together but it also drives people further apart'. [P14]

Another issue that was raised, and triggered a debate on what additional features the app should have, was that of the limitations that people with accessibility issues might face when wanting to visit cinemas with friends. A participant, a wheelchair user themselves, told us that they need to call and ask cinema staff whether they can accommodate nearby seats for their friends as well, otherwise they may end up sitting in the wheelchair users designated space by themselves and away from their friends. They would wish this to be automated by the system.

> 'I had neck pain due to being forced to sit in the front for disabled [...] having to sit by yourself if disabled in some screens. If there is a way to add that [ticket booking] on the digital side of things, on the booking system once you created your profile and actually state that you are a wheelchair user

and then depending on the number of tickets you're buying then they will reserve as many seats for you'. [P13]

Throughout the second workshop many suggestions for future digital interventions emerged, one of which was in common with the previous group: that of the alert for requesting a movie to come back and then reminding you to go watch it: *'I would like a reminder system because I often see trailers and I say I really want to watch it and then I find out it was on a month ago and I missed it'.* [P1] Other ideas mostly revolved around how a point system like the existing loyalty schemes in different settings, such as in cafés or super markets, would make the experience more engaging.

Last but not least, one of the participants designed on paper a whole system that would enhance their experience if developed.

'[…] So, it will have access to people's Facebook feed, for example "I really want to watch movie X", "I haven't watched this" or "I have watched this, it was terrible" and others say different things and this app will filter all those movie-relevant feeds and analyse them. And then the app interface will allow you to tick several criteria like positive reviews, bad reviews and friends wanting to see a film, friends who have already watched it. […] [P8]

They designed a mobile app for cinema-going planning and their target audience was friends dispersed in different locations in the city. Their app would involve movie taste, availability and user automated calendar.

5. DISCUSSION

5.1. Construction of digital identity through cinema-going trajectories

The availability of media platforms around us make interventions in experiences far easier and this is why eventually the audience experience has turned from passive to active (Nakatsu et al., 2005). This applies to cinema as a medium as well, since there has been a lot of research and innovation in cinematic and film technology and interactive cinema as discussed earlier.

Oliver argues that cinema audiences enjoy being involved in a more interactive cinema experience during film screening (Oliver, 2016). Our study reinforces her argument only in that participants would be interested in live interactivity such as a live band while the movie is on, but they also report that screening time is 'sacred' and as such they wouldn't want anything digital in it. It is unanimously their time to immerse in the film and escape from reality for a couple of hours. They are open however to other kind of experience interventions outside the projection room.

Our research suggests that cinema-going needs to be viewed and enhanced as a holistic experience. Cinema audiences have new, specific, individual needs that must be addressed. Cinemagoers are rapidly changing their practices compared to the past, involving digital tools such as social media, online booking platforms, cinema and parking mobile applications and online discounts websites. This leads us to conclude that cinema-going experience is something broader that includes aspects outside the screening room, in agreement with Valentine (1994) who described it as something that surpasses the screen.

As Benford et al. (2008) argue, people constantly carry out journeys that might include various places, times, content but sustain some kind of consistency and are part of a whole. Our research contributes to the expansion of the cultural value of a trajectory by mapping the cinemagoers' path. Following the path a person makes towards a destination contributes to the understanding of their behaviour but also provides information about this place/ destination as Kefalidou et al. (2014) also contend. Furthermore, we suggest that cinemagoers provide information to the cinema about the relationships and interactions they have with it and their cinema-going path has a start and an end outside the movie theatre.

Our study indicates that combining the use of technology (i.e. smartphones, tablets, PCs along with Internet connection) and cinemagoers physical interactions (i.e. reading the cinema brochure, booking tickets for the movie physically), before, while and after the actual movie viewing are parts of the cinema-going trajectory. Research on trajectories in other cultural spaces such as galleries and museums have been focusing on the interactions and paths visitors follow. With this study, we also want to go beyond space in the cinematic sector, and include both physical and digital interactions.

Due to the dominance of digital media in everyday life and the integrated narrative on every person's online preferences and activities (Elwell, 2013), this path tends to be left with digital traces that progressively construct a digital identity. Therefore, cinematic digital identity is a set of digital data attached to the cinema-going activity that relate to a cinemagoer's online interactions. It's not limited however to the traces themselves, but expand on how cinemagoers' practices and behaviours are shaped and transformed while using these platforms, while engaging physically and digitally with activities that come before, while or after the actual cinema-going. These can range from online booking of tickets, to an online personal cinema-going history (what, where, when, with whom), to online reviewing of a movie, getting an online discount voucher for the movies, and finding parking

online beforehand. All the above, being part of one's cinematic digital identity, can contribute to enhancing cinema-going experience which is something personalised and different for every cinemagoer. This is because each individual has different values, needs and priorities attached to the cinema-going experience and these are further discussed below.

5.2. Designing useful technology for cinemagoers

Drawing from Farmer (2015) and Evans (2011), as well as from the results from our own study, we conclude that cinemagoers have different tastes related to their cinema-going experience, which are expressed according to their identity. In this section, we discuss how these matters of taste and identity expression are linked to a useful design for the users – in this case, the cinemagoers – and how this could enhance the existing community spirit since it dominated the discussions. When talking about useful design, we refer to a product/service which is accepted by many users and contributes to completing tasks and objectives.

Evans (2011) explored the cultural and social value of 'art cinemas' in East Midlands and focused on how the audience constructs an identity of belonging to an 'indirect' community. Our study affirms the sense of community that exists among cinemagoers and extends it, implying that technological enhancements are needed in order to strengthen this community's bonds and provide a more enjoyable, practical and user-friendly personalised cinema-going experience.

In terms of value and taste, our results indicate that members of this community are interested in using digital tools that could solve matters of practicality such as not losing tickets or an alert to inform them of a coming-back film, or matters of connecting with fellow cinemagoers such as alerts to launch a group conversation after a movie screening. What is evident is their need to have something new that will truly add value to their experience rather than being an additional mobile app in the market. Our results also show that participants would be willing to pay for an extra feature that would make their life easier and their experience more unique.

Similarly, there is the same connection between data sharing and reward. Cinemagoers are quite keen to share their data if they know they are going to be used for developmental purposes and not for commercial ones and that they will also provide a reward such as a free ticket, food, drink. However, technological innovations should be designed bearing in mind to increase the trust between the audience and the venue, as well as the transparency so that they know where their data goes and that

they are in control of it. This is our chance to raise users' awareness around data sharing.

6. CONCLUSIONS AND NEXT STEPS

In this paper, we have explored potential opportunities for enriching cinema-going experiences by involving audiences in the design process and getting their perspective on the definition of the experience within a digital world. We made a contribution to the understanding of the cinemagoers' engagement with digital platforms, how these are part of a trajectory and how digital identity is constructed within it.

What cinemagoers need from technology is personalisation, usefulness, transparency and reward. Having those, they can be aware of their use of data and understand how they curate their digital identity. The above study is meant to set the foundations as it is the first of a series of studies on mapping the contemporary cinema-going experience and creating new engaging experiences. Future steps involve a participatory design workshop with cinemagoers; a diary study that will help with mapping in detail cinemagoers' digital/physical interactions; and eventually, an iterative process of prototyping of technological advancements to address data issues and engage with different kind of cinemagoers.

To conclude, this piece of work looks exclusively at the cinema-going experience and not the cinema in general as previous work has mostly done. We hope that our findings will stimulate further work to investigate meaningful ways of engaging with our digital data and potentially new creative business models for the cinemas. It would also be interesting to see how the concept of a trajectory applies to other industries and contexts such as but not limited to the theatre and the opera.

7. ACKNOWLEDGEMENT

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