Second Screen interaction in the cinema: Experimenting with transmedia narratives and commercialising user participation

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Abstract:
In its relatively short life, second screen interaction has evolved into a variety of forms of viewer engagement. The practice of using two screens concurrently has become common in domestic TV viewing but remains a relatively specialist and niche experience in movie theatres. For this paper, three case studies explore the motivations and challenges involved in such projects. The film Late Shift (Weber, 2016) pulls together conventional cinematic narrative techniques and combines them with the interactivity of Full Motion Video games. An earlier film, App (Boermans, 2015) innovated with the second screen as a vehicle for transmedia content to enhance an affective response within the horror genre. The release of the film Angry Birds (Rovio, 2016) involved a symbiotic second screen play-along element which began in advance of the screening and continued after the movie concluded. This study also analyses other interactive projects within this context, including Disney’s short-lived ‘Second Screen Live’ that accompanied the release of The Little Mermaid (Disney, 1993) and commercial platforms including CiniMe and TimePlay. Mobile devices are being used as platforms for interactive gameplay, social participation and commercial opportunities. However, this landscape has implications on the culture of audience etiquette and the notion of user agency within an environment of immersive storytelling.

Keywords: Interaction; Immersion; Transmedia (Narratives); Agency; Distraction; Paratext

Introduction
The concept of the ‘second screen’ is a relatively recent addition in the lexicon of audience reception studies and media analysis. The term can refer to an object (usually a mobile device) but is best understood as a user experience characterised by interaction and
increased user agency. Second screen activity involves the interplay of content between two screens concurrently. Over the past seven years this has commonly applied to a developed reciprocal relationship between television and mobile devices. However, thanks to the innovation of filmmakers and the willing experimentation of some distributors and exhibitors, the second screen is now gaining traction in the cinematic spectatorial space too.

This study examines the impact of emerging second screen use on traditional notions of the sanctity of cinema as an immersive environment. A mixed methodological approach has been adopted for this research: a number of qualitative interviews have been conducted with film directors and executives to examine the motivations behind second screen projects and to gain insights into the successes and obstacles of dual screen audience engagement. Added to this is an analysis of interactive case studies, marketing materials and paratextual content. In this way, this paper examines how forms of second screen engagement with the big screen compare with other more established forms of audience participation at special event screenings in cinemas (McCulluch & Crisp, 2016; Kennedy & Atkinson, 2015). This involves a dissection of interactive cinema’s place in the changing ecosystem of transmedia storytelling, the gamification of narrative forms, and the twin concepts of audience activity and narrative immersion (Murray 1997, Ryan 2006).

To many, a movie theatre is a unique and special place for affective narrative experiences. It’s a place where viewers submit to the darkness and are flooded with optical and auditory illusions. Ed Tan (1995) describes the cinema as an ‘emotion machine’. To Marie-Laure Ryan (2006) it is ‘like a dark cave and creates the optimal conditions for an immersive experience’ (p.60). As a spectatorial arena, it excels in both narrative and sensory immersion which creates and encourages ‘an intense, affective, even trance-like state’ (Levi, 2012, p.76). For storytellers and commercial advertisers alike, cinema is a unique environment because it demands and generates a captive audience both physically, psychologically and also in terms of aesthetic attention. On the other hand, some ontological studies have questioned the uniqueness of the space for immersive experiences. According to David Rodowick (2007), cinema is ‘increasingly just another element of digital culture’ (p.133). Within this theoretical framework, modern cinema stands firmly within the realm of new media and user engagement. Rodowick argues: ‘Cinema and its prehistory are as much the progenitors of new media as computers and their prehistory’ (p.95). It is within this context, then, that second screen engagement can be seen as following in the footsteps of decades of technical and narrative innovation in cinemas.

However, the growth of second screen interaction threatens the immersive nature of the big screen itself. Various issues concerning distraction and the interruption of user involvement dominated debates around transmedia and immersive storytelling well before the conception of the second screen. Much depends on the different forms of user immersion at play. Mark Ward (2015) argues that narrative immersion is a ‘simulation of social experience’ whereas perceptual immersion is arrived at through ‘nonconscious mechanisms’ and is a ‘simulation of physical experience’ (p.164). Both are designed to heighten emotional and affective impact. Considered in this way, perceptual immersion
comes close to the disputed aesthetic concept of ‘disinterested attention’ where an object or a text is experienced for its sake alone without any other ulterior motive (Dickie, 1964. Kemp, 1999).

Media forms which demand high levels of user activity do not sit well with traditionally passive experiences. On one level, all theoretical audience members – even the most laid-back ones – must be active to a degree in order to give a text meaning. Jakob Lothe (2000) states, ‘the implied reader is both active and passive’ (p.19). However, in the realm of second screen participation, the notion of audience activity goes beyond this and involves levels of user agency which Janet Murray (1997) defines as ‘the satisfying power to take meaningful action and see the results of our decisions and choices’ (p.126). The second screen generates a wide spectrum of potential user activity. At one end of this, is the power to interact with, and alter, the cinematic narrative itself.

**Evolution of Interactive Cinema**

Enabling a cinema audience to participate in the construction and outcome of a narrative is not a new concept. At the beginning of the 1960s, *Mr Sardonicus* (Columbia, 1961) was released and marketed as ‘the only picture with the punishment poll’. At the end of the film the audience was urged to give ‘either thumbs up or thumbs down’ to decide the fate of the central character (Hales, 2015, p.37). However, this early notion of audience participation proved largely illusory as most now accept that no happy ending was ever filmed. Six years later, *Kino-automat* (Raduz Cinera, 1967) enabled audience members to vote using red and green buttons on their chair handrests (Hales, 2015, p.38). Depending on the choices made, a particular film reel would be added to the projector and the story would continue down a new path.

These are examples of what Chris Hales (2015) describes as ‘decision cinema’. During the following years, these innovations in viewer agency remained specialist, niche events. However, they can also be viewed within the context of other experiments in audience interaction. These include William Castle’s ‘Percepto!’ device in the horror film *The Tingler* (Columbia Pictures, 1959) in which adapted cinema chairs vibrated along to the action on screen. It was an early precursor to the mechanical D-Box systems installed in many contemporary cinemas (Stadler, 2016). In parallel to this was the drive to create other types of haptic experiences and thereby trigger different forms of perceptual immersion. The film *Scent of Mystery* (Hans Laube, 1960) introduced the notion of ‘Smell-O-Vision’ whereby different aromas were released into the auditorium (Papagiannis, 2017) Intended as an olfactory evocation of various scenes in the film, it was largely dismissed as an expensive gimmick by audiences and critics at the time. However, the concept was developed further by John Waters in his film *Polyester* (New Line Cinema, 1981) which provided audiences with scratch’n’sniff cards (Olofsson et al., 2017). This last example shares many elements of second screen interaction as audiences had a specific object to hold and engage with for the duration of the film.
Much potential development in narrative interaction was hampered by technological limitations but there were also several cultural and psychological obstacles too. During the 1980s and 90s, much of the public appetite for interaction was satisfied by computer-based video games (as we shall investigate later). Then, in the domestic environment, second screen activity flourished with the rapid growth of digital television after the year 2000. TV quiz shows, entertainment programmes, scripted drama and sports broadcasting embraced the interactive and social potential inherent in the digital revolution (Blake, 2017). The notion of the second screen emerged as smart phones and tablets slowly became ubiquitous personal devices in developed countries. In the ecosystem of television consumption, the second screen can be viewed as one stage in the evolution of interactive TV which also includes remote controls, VCRs, digital set top boxes and Red Button services. As a result, TV audiences are well accustomed to interacting with the TV set by using a device in their hand. And unlike cinema, with television consumption, there are no implicit codes of conduct which have acted as barriers to viewers socialising and participating with a show in real time.

A step change in the possibilities of the second screen in cinemas came with the development of digital projection around 1999. However, the industry was slow to take up the technology as it required the agreement of producers, distributors and theatre exhibitors working together. As Charlotte Crofts (2011) outlines, digital projection didn’t gather momentum until the success of the 3D film Avatar (Cameron, 2009). Writing in that year, Chuck Tryon (2009) observed that digital projection ‘introduced the possibility of interactivity allowing viewers the possibility of becoming active agents in the manipulations of images’ (p.79). It was only when digital projection became mainstream that filmmakers could really begin experimenting with synchronised content across different screens.

**Late Shift**

The promotional material for the film Late Shift (Weber, 2016) describes it as ‘The world’s first cinematic interactive movie’ (Late Shift). Prior to cinema screenings, audiences were instructed to download a mobile app which synchronised with the movie by means of audio watermarking and presented choice buttons at key stages in the narrative. The plot centres around Matt Thomson, a smart maths student, who earns money by doing night shifts as a security guard in a car park. At the outset, a voice-over tells viewers ‘you are your decisions’ shortly before they have to make their first choice on the motivation of Matt: Selfish or Selfless. The interactive process is democratic – majority rules – and the narrative follows the path that at least 50% of the cinema audience has chosen. Matt soon finds himself kidnapped and embroiled in a classic heist scenario which involves a theft from an auction house and a confrontation with organised Chinese crime gangs. At various stages the audience is asked to choose between, for example, Matt talking his way out of tight spots, attacking people with a golf club or shooting enemies. Whatever decisions the audience make, they alter Matt’s destiny (and the outcomes for the other characters). Tobias Weber,
the director of the film, insists that this was a major element in his motivation to make the film interactive:

The sense of responsibility is really important and with this the correlation between choice and effect. These are topics that interest me. It was very important to leave that choice in there for people – that they can gun down people and can become very violent but they would have to live with the consequences down the line. (Author interview, June 2017)

There are 180 audience decision points during the film, fourteen chapters and seven possible different endings. At one end of the scale of narrative possibilities, Matt escapes with the money and rescues the woman he has fallen in love with. At the other end, he is shot and killed trying to find the stolen treasure. To enable this diversity of story branches, Weber filmed nearly 5 hours of content. However, depending on the journey Matt makes, the film might last 70 minutes or 90 minutes in total. Such user involvement gives a new meaning to Barbara Klinger’s notion of ‘the expandable text’ (2006, p.72). Late Shift was shown at selected cinemas in the UK, Russia and Switzerland during the autumn of 2016 and showcased at more than ten international film festivals in 2016 and 2017. During this time Tobias Weber and his production team collected information on the variety of choices made by cinema audiences. Like Kino-automat in the 1960s, it turned into an experiment in collective decision making and group dynamics. First they discovered that audience members tended to influence each other: the viewers who voted against the majority at the beginning of the film, had generally joined the consensus by the end of the movie. There also appeared to be social and environmental factors too: based on audience mood, time of day and even the weather. For example, film screenings in Russia during the cold months of November and December resulted in ‘a lot of very brutal endings being reached’ according to Weber. Whilst in Switzerland, during the summer, there was ‘more subtle decision making’. It comes close to what Tryon (2009) describes as ‘new forms of community’ (p.79) in audience reception. In this case, limited interaction within a narrative, bolstered by a sense of responsibility, created a new group experience within the usual staid confines of the cinema. It also adds an extra dimension to Julian Hanich’s concept of an audience as ‘a collective body’ where the cinema ‘becomes a place where common emotions create an impression of social belongingness’ (2010, p.77). In the case of Late Shift, the audience does more than share an emotional viewing experience: they also embark on an exercise of collective narrative development.

When analysing the effectiveness of interactive drama, one crucial question concerns the outcome of the story itself: what if the viewers make the wrong choice? As Ryan (2004) outlines, the problem rests in the ‘reconciliation of users’ freedom of action with the creation of an aesthetically enjoyable plot’ (p.348). From a dramatic viewpoint, some plot outcomes will inevitably be more convincing and more compelling than others. So, what would be the director’s cut for Late Shift? ‘I like the ending where Matt becomes
worse than his enemies,’ says Weber, ‘this is where he takes the money and lets the girl die. That’s a very strong story but it’s very brutal.’

**Gamification**
The LA times described *Late Shift* as a ‘game movie hybrid’ (Martens, 2016). The film itself has a renewed lifespan outside of the cinema on gaming platforms like X Box One and Playstation 3. This is a realm where the boundaries between filmed drama and gameplay blur. Again, this is not a new phenomenon: running in parallel with the progression in interactive movies has been the expansion of video content in computer games. One milestone, during the 1980s, was the release of the game *Dragon’s Lair* (Cinematronics, 1983) which put players in control of ‘Dirk the Daring’ and sent them on a quest to rescue Princess Daphne. It looked and felt like a real animated cartoon instead of a game. Sloan (2015) describes it as ‘a very early example of what might be considered an interactive movie.’

Yet games that employed Full Motion Video (FMV) suffered a negative reaction during the 1990s which was due partly to the limits of graphic quality. As Lev Manovich (2002) states: ‘the objects switch back and forth between pale blueprints and fully fleshed out illusions’ (p.206). However, there has been a renaissance in FMV games in recent years and interactive cinema can also be viewed within this creative tradition. *Her Story* (Sam Barlow, 2015) was one popular FMV game which puts the user in the place of a police detective examining an old crime. One reviewer stated that it ‘blends cinema with video games, all the while wearing its crime influence on its sleeve’ (Donnelly, 2015). Another game, *Quantum Break* (Remedy Entertainment, 2016) was released with 20-minute pre-cut video scenes which had the production quality (and budget) of a Hollywood film. At the end of each sequence, users make choices that unlock new gameplay areas which mostly involve first person shooting scenarios. However, the director of *Late Shift* says his film is a reaction against such shooter games where there are few tangible consequences to on-screen violence. ‘I have a problem with those shooter games’, says Weber, ‘those characters are easy targets because they are not very human. It’s not as emotional as shooting a real person.’

**Transmedia narratives**
It is becoming common practice for connected mobile platforms to be used for enhanced content and narrative extension. It’s happening across the multitude of storytelling genres: in novels, radio soap operas and TV scripted drama to name but three. Anne Zeiser (2015) defines transmedia narratives as ‘an interactive story and world experienced on multiple platforms simultaneously’ (p.9). Tom Dowd et al. (2013) describe a transmedia story as ‘an entertainment experience that builds from multiple encounters with the narrative’ (p.4). In film production, directors are increasingly experimenting with the potential of touch screen mobile devices to develop a new layer of interactive possibilities. Transmedia forms are
deployed within various frameworks and driven by a variety of creative motivations. They’ve been designed to supplement a complex central narrative with the use of backstory or parallel content. They’ve also been created to engender a sense of user agency by means of employing a variety of forms of interaction and participation. Others have been more focused on enhancing an affective experience for users.

A small number of recent films have used digital interactive transmedia forms to amplify emotional response. The production team behind the Dutch film *App* (Boermans, 2013) did not originally set out to make a second screen experience. At first they intended to make a conventional horror movie about a young woman named Anna who is stalked and terrorised by a malicious and apparently intelligent app on her phone called Iris. Then, as the idea went into development, the director Bobby Boermans decided that the subject matter lent itself to a transmedia second screen experience. According to Boermans, ‘the one thing you learn about all these technologies is that they can heighten the emotional experience and elevate whatever feeling you have – whether it’s joy or fear’ (Author interview, June 2017). A movie companion app was developed using the same audio fingerprinting technology that had been used to track down illegal digital downloads. At first, the app displays content synchronised to the film itself: for example, online news stories about events featured in the plot, text messages sent by characters on screen and different camera angles during scenes. In the second half of the film, as Iris becomes more menacing, the second screen content becomes equally unsettling. For example, Iris begins taking embarrassing photos of the characters and these images suddenly appear within the app. Perhaps one of the most successful second screen moments happens when a bomb is set to explode on screen and the mobile phones of viewers vibrate as the countdown is secretly revealed. ‘You can either withhold information or put your audience a step ahead’ says Boermans, ‘and that’s a cool idea to play around with’.

*App* does not exist in isolation: the film has built on other cinematic and cultural storytelling traditions. Japanese cinema has a long history of linking the conventions of horror narratives with the dangers of technology. *The Ring* (Ringu/Rasen, 1998) is a significant milestone in the genre which spawned a movie franchise based on a cursed videotape which kills the viewer seven days after viewing. As Alexander Svensson and Dan Hassoun (2016) outline, there is a ‘lineage of horror films themed around the invasion of home space and promoted through technological novelties’ (p.171). Colette Balmain (2008) argues that, in Japan, technology ‘provides a conduit between past and present, its very existence paradoxically enabling the return of the monstrous repressed past’ (p.175). The plot of *The Ring* is a metaphor for the threats posed by technology and the modern world: isolation, loneliness, invasions of privacy, screen addiction and humiliation.

Fifteen years later, *Sadako 3D 2* (Kadokawa Shoten, 2013) became the tenth film in the Ring franchise and distinguished itself from the rest by being promoted as ‘the first smartphone 4D movie’ (Blair, 2013). The technology has evolved: instead of a VHS video, it is laptops and mobile phones which seem to be infected with a virus that compels users to kill themselves. Cinema audiences were instructed to download and open a special app on
their phones during the film. The 4D concept relates to the limited haptic and sensory functions within the phone itself: at various times during the movie, audience phones vibrate and ring. Conceptually, these elements hark back to the vibrating theatre chairs employed in screenings of the 1959 film *The Tingler*.

**Second screen as liminal device**

There are several parallels here with Boerman’s film *App*: in both cases the second screen experiences remove the physical and psychological distance between viewer and screen. As Svensson and Hassoun suggest, ‘the apps blur the boundaries between cinematic and spectatorial space’ (2016, p.171). Running in parallel to a big screen experience, the small screen is designed to be intimate and active. The contact with the user is *up close and personal* and, in this context at least, more sinister as a result. Here, the mobile phone is a liminal object which stands at the threshold of illusion and the real world. In both films, the mobile phones of audience members apparently become possessed by a demonic spirit. Viewers of *Sadako* were able to swipe to reveal the image of the girl spirit from the film. As transmedia devices, second screens cast viewers as participants within the narrative itself. Through their infected phones, users become akin to victims of the supernatural horror as if they had minor bit-part roles in the film itself.

Such transmedia second screen experiences share many parallels with special event screenings like Secret Cinema. In both cases, audiences have to make specific preparations before they arrive. This might involve downloading an app, registering to an online site for access to relevant enhanced content or dressing up to play a part in a recreated fantasy world. The user experience moves beyond viewing into becoming at the place where the artificial encroaches on the real. Helen Kennedy and Sarah Atkinson (2015) describe this process as gaining ‘access to fictional spaces’ in their description of a *Back to the Future* Secret Cinema screening. There is a sense of the cinematic charade in both second screen transmedia participation and event screenings. Just as Kennedy and Atkinson outline the ‘playfulness of the Secret Cinema aesthetic’, so Colin Harvey (2015) describes engagement with transmedia projects as characterised by ‘multiple, playful and creative impetuses’ (p.123).

In television, second screen engagement often performs best alongside those programmes where viewers find themselves in a playful mood and compelled to shout at the screen. This includes sports matches, for example, quiz programmes or talent shows. In all of these cases the second screen gives viewers a platform to socialise with other fans, vent their frustrations (at a referee or a contestant) or display their own expertise (during a quiz). The same principles apply to second screen participation within a cinema environment too. However, this works better in some formats and genres than others. Perhaps this is one reason why the horror genre has successfully embraced digital transmedia forms. As Tyron (2009) observes: ‘horror film audiences, in particular, are notorious for shouting back at the screen’ (p.75). There were a lot of audience outbursts during screenings of *Late Shift* too. Tobias Weber says ‘people were laughing, screaming and
had a lot of fun taking the decisions together. I never expected there to be such an electrifying mood in the room.

From this social standpoint, second screen participation and interaction also has much in common with other special cinema events like singalong and quote-along screenings. These, too, are relatively niche activities aimed at specific and dedicated groups of film fans. And, just like sing-along events, the practice of second screen activity within a cinema has also attracted antipathy by some viewers. Richard McCulluch and Virginia Crisp conducted a study of audiences at the Prince Charles Cinema in London and found that ‘acrimony towards sing-alongs and quote-alongs was often communicated quite bluntly’ (2016, p.205). One of the reasons for this, they concluded, was that the event format was considered ‘a threat to the sanctity of the cinematic atmosphere’ (p.206).

Expanding the paratext

To encourage playfulness in TV viewing, executives and producers experimented with second screen features to run in parallel with scripted dramas. For example, in 2012 the American network AMC launched the StorySync app for both their hits shows *The Walking Dead* (AMC, 2010 –) and *Breaking Bad* (AMC, 2008 – 2013). Neither of these apps enabled users to alter the narrative, instead they contained quizzes, exclusive content and encouraged viewers to ‘play along with the show’ in real time (AMC, 2017). This might involve counting the number of zombies killed or voting on the motivations of each character. The apps have become popular forums for fan socialising and the formation of fan-group identity around programmes. These digital platforms provide additional levels of user understanding and experience within a fictional universe and around a central narrative. The interactive content becomes a new form of paratext and joins promotional material which, according to Rayna Denison, ‘contains messages about the ideological and political construction of texts and how those texts’ meanings are communicated by industry’ (2016, p.71). In this way, in both cinema and TV, the content around user participation forms a fresh digital layer to what Klinger (2006) describes as the ‘intertextual surround’ (p.72).

Throughout the slow inception of the second screen, social gameplay has been a common element within this concept of enhanced and multi-layered text. For companies like Disney and Warner Bros, their first forays into second screen material were initially only intended to accompany a DVD and be used in a domestic environment. Disney’s first second screen project was released in Mach 2011 to coincide with the Diamond Edition Blu-ray DVD of *Bambi* (Disney, 1942). The *Bambi* online site and mobile app included games, videos, quizzes and a Thumper flipbook which were synchronised to the film. Since then, there have been ten other Disney second screen / DVD integrations which have included: *Tron: Legacy* (2011) and *Iron Man 3* (2013). In his discussion of paratexts, Jonathan Gray argues that such DVD bonus materials have ‘extra authority precisely because they are now a digitally integrated part of the show’ (2010). This has become true of second screen material too.
In the autumn of 2013, Disney took its project a stage further and announced a number of special Second Screen Live events at 16 movie theatres across the USA. The competitive and social dimension was an integral element of the screenings. A mobile app enabled audiences to play games against each other during *My Little Mermaid* (Disney, 1989) and the winner received a limited edition lithograph from theatre staff. The app let users engage with Disney characters directly and was designed to appeal to the most ardent of Disney Superfans. As Hye Jin Lee & Mark Andrejevic (2014) state: ‘In the interactive era, fans have earned the new status of “dedicated consumers”’ (p.46).

One-time rivals for user attention, films and video games have had a changing relationship throughout the decades. Their association converged in the early 1980s with the advent of films based around video game culture like *Tron* (Disney, 1982) and *War Games* (MGM, 1983). Since then, a form of symbiotic alliance has evolved as many movies have spawned successful games and vice versa. *The Angry Birds Movie* (Rovio, 2016) takes this interrelationship to another intricate level. The film was born out of the globally successful mobile game franchise and, perhaps inevitably, a new mobile game app was created to coincide with the release of the film. However, unlike the Disney experiments, the cinema audience was instructed to keep their phones and tablets turned off during the film itself and to launch the companion apps only during the credits. At this point audio watermarking activated bonus content within the app which included a special area in an *Angry Birds* pinball game. Second screen cinema users were also rewarded with bonus video content on their phones as well as an alternative ending to the film. According to Miika Tams, the VP for games at Rovio: ‘We wanted to find some elements around the movie that didn’t replicate the film but told a broader story around that universe. We wanted to have games that drive viewers to the movie and then the movie was a vehicle for driving people back to the Angry Birds games’ (Author interview, June 2017). This transmedia world-building is designed not only to enhance the experience of superfans, but also to utilise digital platforms in order to cross-fertilise brand identity.

**Commercial opportunities**

Across television and cinema, many companies have embraced the second screen for the commercial opportunities inherent in enhancing user activity. Mobile platforms have become ubiquitous devices for a large cohort of young consumers and media companies are increasingly focused on creating content that is platform agnostic. Within the film industry, directors and producers have adapted existing narrative and distribution models to attract young viewers on mobile platforms. Kirsten Daly (2010) argues:

> movies can exist in many different forms. Increasingly filmmakers are taking advantage of this to offer different formats to different audiences at different times and for different prices (p.141).
The *Angry Birds* movie/game is a case in point. The second screen element was just one part of a sophisticated transmedia marketing campaign around the creation of a new universe to engage fans before, during and after the film. The interactive promotional activity started weeks before the release of the movie with mobile Quick Response barcodes called ‘Bird Codes’ on merchandise and posters. According to Miika Tams, ‘this gave you an augmented reality glimpse into what the movie world was going to look like’. The mobile content included Augmented Reality (AR) games where users could take selfie photographs sitting alongside their favourite Angry Bird characters. As the movie fleshed out a once simple game-play narrative, the second screen became a liminal portal through which users could interact with the characters from the big screen and the games.

However, commercial second screen projects in cinemas have had an uncertain and chequered history. Tryon (2009) observes that ‘portable media players... can actually serve to promote moviegoing as an activity’ (p.76). In 2013, the *CiniMe* mobile app was unveiled by the Digital Cinema Media (DCM) company and the Yummi media group to do exactly that. Promotional material described it as ‘a cool new mobile app that helps you get more from a trip to the movies’ (*CiniMe* press release, 2013). The app utilised timepoint trigger codes and audio watermarking and didn’t require Wifi or a 3G connection. There were play-along games during the trailers and adverts where users were tempted with the promise of gifts and free refreshments. The app also scanned movie posters to unlock bonus content and on mobiles. Commercially, *CiniMe* enabled advertisers to create interactive mobile promotions to a relatively captive audience. This included, for example, a Ben and Jerry’s Ice Cream Quiz where three correct answers would entitle the player to two scoops of ice cream. In order to entice other brands, DCM released details of an HTC interactive phone advert and claimed a 39% average interaction rate on *CiniMe* (DCM Cinema Guide, 2015). By the end of 2014, Yummi had signed a deal with the Wanda cinema chain in China where *CiniMe* was renamed *WeDong*. In one stroke, this added 15% of the world’s total cinema screens into the second screen network. At the time, the Chairman of the Yummi Media Group said that the deal ‘empowers an increasingly mobile-savvy Chinese population with access to Yummi’s leading mobile cinema app’ (Yummi press release, 2014). However, despite this apparent rapid global expansion, the *CiniMe* project was relatively short lived. Yummi went into administration in January 2016 and *CiniMe* users were alerted that their app would no longer work later that year.

It is difficult to quantify exactly why the *CiniMe* initiative ran aground. At its height, the app was used across Wanda cinemas in China, Shaw theatres in Singapore and it had signed a deal with WerbeWeischer in Germany. In the UK, it was available in more than 277 cinemas including *Odeon*, *Vue* and *Cineworld* chains. There had been more than half a million app downloads with an average of 100,000 users each month (DCM Cinema Guide, 2015). However, by the beginning of 2016 users were posting messages on social media sites that *CiniMe* wasn’t working well. According to Richard Mitchell, from the consultancy company Harkness Screens, ‘auditorium variables could affect the app’s performance’
These included problems accessing audio signals within a noisy auditorium and issues ensuring that mobiles were visually aligned to the big screen.

The demise of CiniMe has not deterred other digital media companies from investing in similar innovations around second screen interaction in cinemas. TimePlay is one app that has been developed in Canada to enable real time interaction within big venues like sports arenas and festivals. Its use has also been expanded to include 56 Cineplex theatres in Canada. In May 2017, the company stated that 4 million people had downloaded the app and there are plans to expand the service into 1,000 cinemas in the US by the beginning of 2018. For participating cinemas, the second screen real-time interaction happens both before and after the film. There are games, quizzes and contests where audience members compete against each other. The winners receive points and Cineplex store discounts.

In commercial television, second screen activity led to synchronised, programmatic and addressable adverts across two screens. This meant that promotional content could be automated and personalised according to user viewing habits and individual registration details. TimePlay technology has enabled such second screen advertising to reach captive cinema audiences. A number of companies, including McDonalds, Chevrolet, Mazda and Samsung, have produced interactive big screen adverts which utilise mobile devices for various types of viewer engagement in Timeplay theatres. The growing consensus is that an active audience is more likely to be engaged with a brand message. According to Timeplay’s CEO Jon Hussman, ‘Audiences love TimePlay’s interactive content because it’s fun and they view it as entertainment rather than advertising’ (TimePlay, 2017). Beyond this, the growing second screen culture allows commercial organisations to gather data on user profiles as well as viewing and purchase habits. In TV and cinema alike, such interactive advertising raises important ethical questions around user privacy and personal data protection. Within movie theatres, there is the added dimension of the threat to the sanctity of the cinematic space and the conventions of cinema etiquette.

**The subtleties of cinema etiquette**

One significant cultural factor which continues to hamper the development of the second screen in cinemas relates to the notion of a firmly established and implicit code of conduct which governs theatre etiquette. Yet for some this has been one of the attractions of the second screen: it means subverting conventions and creating a new type of social event within the cinema space. For example, in advance of Disney’s Second Screen Live! screenings, the company sent a technical information pack to participating cinemas which asked staff for ‘extraordinary support’ for the event where ‘Disney fans are encouraged to break the rules and bring their iPads to the theatre’ (my emphasis). This notion of ‘breaking the rules’ of cinema viewing and becoming an audience rebel (even though officially sanctioned) appeared to be an important motivation for young audiences.

As we have seen with social cinema events, there have been significant tensions around the notion of decorum. One the one hand, exhibitors don’t want to alienate viewers who consider the cinema to be a sacred space for immersive personal experiences.
However, cinema chains, distributors and filmmakers also appear to want to make the most of the interactive and commercial potential rooted within second screen participation. In 2016, Dan Hassoun observed that a desire ‘to capitalise on emerging media trends... has led some to reconceptualise the mobile phone as a resource to be harvested rather than a threat to be neutralised’ (p.98). Both Boermans and Weber report that the audiences for their second screen movies were dominated by people in their 20s and 30s. In many cases, the need to tempt younger audiences – the elusive millennial generation – into cinemas has led some cinema chains to rethink their attitude around mobile phone use. At the 2012 CinemaCon event in Las Vegas, the CEO of Regal Entertainment, Amy Miles, suggested that younger patrons might be allowed to use their mobile phones during certain films to lure ‘today’s savvy moviegoer’ (Verrier, 2012). That triggered a quick response from Tim League, chief executive of the Alamo Drafthouse chain, who said ‘over my dead body will I be introducing texting into movie theatres ... that’s a scourge of the industry’ (Verrier, 2012). In 2014, some Chinese cinema chains went one stage further: not only did they trial letting audiences text during a screening but they also experimented with charging viewers to display texts up on the big screen and overlaying the film itself. This became known as Bullet Screens after the practice of displaying ‘bullet messages’ on the screens of Japanese anime games. Winston Ma (2017) states: ‘Chinese movie fans seem to want both the cinema and the mobile-device experience’ (p.210). Again, this initiative was designed to appeal to young, tech-savvy, digitally confident users.

It is a debate that has not gone away. In April 2016, in a discussion around attracting younger viewers, Adam Aron the CEO of AMC Entertainment in America, said:

> When you tell a 22-year-old to turn off the phone, don’t ruin the movie, they hear please cut off your left arm above the elbow. You can’t tell a 22-year-old to turn off their cellphone. That’s not how they live their life (Lang, 2016).

At the time, it was suggested that AMC cinemas might provide certain seating areas where texting was allowed during films. However, the backlash on social media was fast and fierce. Just two days after the interview was published, AMC realised a statement on Twitter which announced: ‘NO TEXTING AT AMC. Won’t happen. You spoke. We Listened. Quickly, that idea has been sent to the cutting room floor’ (AMC Theatres, 2016).

Any successful second screen initiative would need the backing and collaboration of film-makers, distributors, cinema exhibitors and audiences. The production teams behind *Late Shift* and *App* were sensitive to the demands of cinema etiquette: the companion apps were automatically set to a dim mode and used device vibration rather than excessive audio alerts. ‘Inside the cinema nobody is used to using their mobile phones’, says Boermans, ‘We had to convince the theatre chains to try out this experiment. We showed them an early cut of the movie and they gave us some feedback’. Running in parallel with this challenge of established cinema etiquette, is the thorny problem of narrative distraction.
Distraction and narrative flow

In 1953, Suzanne Langer described a watershed moment as a child when she went to the theatre to see a performance of Peter Pan. At one stage during the production, Peter turns to the audience and asks them to clap to save the life of the fairy Tinkerbell. ‘Instantly the illusion was gone, an acute misery obliterated the rest of the scene’ writes Langer (p.319). In asking the audience to participate in the story, Langer clearly felt viewer distance was lost when the fourth wall was breached. Yet, is this a danger inherent in cinematic second screen experiences? By asking viewers to draw their eyes away from the big screen to attend to content on their mobile phone, is this creating a rupture in both perceptual and narrative immersion? This was the reason that The Angry Birds Movie avoided interaction during the main film itself. Tams states: ‘we didn’t want to do that for the simple reason that movies, as an experience, is something that you enjoy and be within the storyline and not get disturbed by anything else’ (Author interview, June 2017).

It is a feature of cinematic transmedia projects, as with other digital storytelling environments, that user participation can negatively alter the pace and affective impact of the narrative. Annika Wolff et al (2006) highlighted this as a challenge in interactive gameplay: ‘allowing user agency during narrative construction to enable interactivity without compromising narrative flow’. App’s director Boermans says this is something the production team grappled with during the post production process. First they cut the film without considering the impact of the second screen elements. Then, after some trials, the team concluded it took an average of 7 seconds for the eye to adjust to the mobile screen and the brain to make sense of any new synchronised content. According to Boermans:

We had to figure out how long your eyes would take from one screen to the other without getting distracted and taken out of the movie... in the end the movie needed to be about 50 seconds longer just to be able to digest and concentrate on all the second screen elements.

Tobias Weber highlights similar concerns with his interactive movie Late Shift. ‘The most difficult thing was the seamlessness,’ he said, ‘this was a prerequisite for us which was really important for the immersive-ness of the story – so you were really caught up in the movie’. Here the filmmaker had the additional challenge of building in time for the mental process of making a choice at each narrative branch. ‘If you make it too short then you lose too many people, if you make it too long then it destroys the flow of the film. The good time is between 3 and 5 seconds,’ said Weber.

The development of such digital, interactive and participatory technologies requires the creation of a fresh mindset by audience members, cinema exhibitors and storytellers. In his study of media convergence, Henry Jenkins (2006) discusses child engagement with Pokemon texts but what he describes could also refer to second screen transmedia stories which ‘are not designed to be consumed merely in the passive sense of the word’ (p.128). To be part of the culture, Jenkins says, users ‘must actively seek out new information and
new products and, crucially, engage with others in doing so’ (p.128). According to Janet Murray (1997) ‘in a participatory medium, immersion implies learning to swim, to do the things that the new environment makes possible’ (p.99). It may be that cinema audiences, tied up with the traditions and conventions of the dark spectatorial space, are still learning to swim in the interactive sea.

Conclusion
Cinematic second screen experiences share a number of common factors with ‘event cinema’ screenings. This is true around the varied dynamics of social participation and the unresolved challenges concerning theatre etiquette and distraction. As digital convergence moves apace, the number and scope of transmedia narratives are increasing. Different forms of interactive cinema now sit within this evolving ecosystem of digital engagement.

Yet, as the interviewees in this study testify, there remain a number of practical and cultural challenges in this landscape. Digital participation within the cinema is regarded, by a large number of viewers and exhibitors, as violating deep rooted implicit rules of decorum. As a result, such projects require new concepts of user agency and a new mindset within immersive storytelling. To date, most of the second screen projects have been specialised and relatively niche experiments and innovations. Some big industry players, like Disney, have dipped their toes in the water but these have usually been tentative, limited and eventually short lived initiatives. Other commercial mobile platforms, even one-time market leaders like CiniMe, have also struggled to retain customers and have ceased trading.

However, there is reason to believe that the second screen can have a positive future in cinemas. With each passing day, technologies to enhance digital interaction are becoming cheaper and more widely used. Perhaps more significant than this: storytellers are learning the lessons from ongoing experimentation and are crafting tailor-made narratives designed to integrate digital transmedia content. The second screen projects studied here have become important milestones down this path. At Rovio, the team behind The Angry Birds Movie is now designing mobile platforms to act as portals for augmented reality storytelling: connecting both movie and game worlds. Tams states:

To continue the story outside of the game and outside of the movie − that’s really interesting for everybody. That’s what we are trying to do now within our industry: let’s try and take the game outside of the gaming experience and bring real life elements to it.

The film App was a commercial success in the Netherlands and sold to 24 countries around the world. Since then, the director has been involved in other more conventional film projects but is now returning to the notion of audience participation. According to Boermans:
We are working on trying to bring the second screen experience to different genres... The next step will be when a major studio picks up on the technology. I think it will be the future of cinema in some form.

Following its cinema run, Late Shift continues to attract audiences via downloads online where it lives alongside FMV games as well as more conventional films. The director is now working with a number of Hollywood studios to take the concept further into larger scale productions. Weber states:

We can now really toy with audiences. We can write specific content that uses the dynamics of a group of 50 people making decisions together. We are thinking of making a romantic comedy where we split up the audience – half decides for him and half for her – then I think you are going to have this epic battle in the room.

This is just one possibility, but it shows how much potential there is for active social participation within the confines of a cinema. So, in anticipation of future second screen projects: watch this space.

Biographical note:
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