Assessment 2

OPTION B (RESEARCH AND DESIGN)

COMM3780 MOBILE MEDIA

STUDENT NUMBER: 200952175

RESEARCH REPORT: 2173 WORDS

Research Report

Introduction

This research report will examine the current cinema industry and analyse the ways in which organisations are attempting to grow audience numbers with new and developed technologies, both fixed and mobile. It will focus primarily on the UK cinema industry but also consider the worldwide market. Using my own primary research and literature research, I will then present a new mobile application prototype that aims to enhance the existing in-cinema experience by allowing customers to save the trailers and films they see to recall later as well as providing the ability to discover exclusive extras in the prototype application. My primary research is sourced from an online anonymous survey with 36 participants, both male and female, shared with Facebook and Twitter users of ages ranging between 13 and 50.

Cinema Attendance

UK cinema attendance peaked at “1.64 billion in 1946” (UK Cinema Admissions, 2017) and dropped significantly after this to reach the current 170.6 million attendances recorded in 2017. Previous research surrounding cinema attendance has focussed upon the role of television ownership as the primary reason for the post-war decline in attendances (Cameron, 1988, 1990; Fernández-Blanco and Baños-Pino, 1997). However, since the early 2000s, attendance numbers have stopped dropping year-on-year and now remain relatively steady. Macmillan and Smith argue that “the recent trend towards multiplex cinemas accompanied by gentle

growth in cinema admissions since the mid-1980s is evidence that this downward demand-supply spiral has been interrupted" (2001).

Current attempts to increase attendance

Whilst Macmillan and Smith argue that the recent end to dropping attendance numbers is due to cinemas being located in multiplexes (physical spaces offering visitors shopping, food and entertainment options in one location), rather than in remote destinations that are both lengthy and expensive to travel to, there have also been investments aimed at improving the core cinema experience to entice more people to visit the cinema rather than to watch films on their TVs at home.

One such investment is simply the quality of film content being produced and then screened in cinemas, available to view months before a home release is. When cinema attendance numbers started to climb in the early 2000's, Lee attributed "this significant growth to the quality of the films released" (2003). When films with well-rated cast members and large followings, such as the Marvel superhero series, are released, cinema attendance numbers are likely to see increases compared to years with fewer movies that have small or no followings. The output of particular film types and titles from certain series is purely creative and therefore can't be easily controlled by either cinema organisations or film studios.

Other organisations have attempted to increase attendance to cinemas by improving or introducing new technologies to the film screening itself. One such example is '4DX', piloted in the UK by Cineworld. This technology features "high-tech moving seats and special effects including wind, fog, water and scents" (Cineworld, 2018). Despite the large physical and monetary investment in this technology, it is not a

mobile development and requires a costly upgrade of physical cinema auditoriums. Additionally, cinema companies have tried to entice film fans to the cinema more often with loyalty schemes such as Odeon's 'Limitless' card, allowing people to see "all the films [they] want, week in, week out" (Odeon, 2018). Some see this as a direct response to the "increasing quality of home viewing technology" (Tefertiller, 2017) available to consumers including low-cost and easy to access services like Netflix and Amazon Prime Video. Despite the forward-thinking approach of schemes like this, many require a physical card to register and don't offer a truly mobile experience on a digital device. One exception to this is MoviePass in the US which is a mobile-first experience that uses an application for both tickets and membership purchasing however, they have run into financial problems after a loss of trust following media reports they "started alienating customers" (Amos, 2018).

Cinema and ubiquity

Greenfield claims that we will live in a future of ubiquity where computers become invisible for humans to distinguish and that "processing power [will be] so distributed throughout the environment that computers per se effectively disappear" (2010). At present, cinema technology is not networked or connected as much as it could be; Viewers may be able to book film tickets online however, they do not know other pieces of information such as the entire runtime of the film they will be seeing and what trailers they will be shown. I agree with Greenfield's claims that a ubiquitous computing environment is plausible considering the speed at which computing chips have become faster and in smaller spaces. Additionally, he is correct in saying that "it [ubiquitous computing] is coming because there are too many too powerful institutions vested in its coming" (2010). Four out of the top five most valuable

companies of 2018 are Apple, Alphabet, Microsoft and Facebook, according to Fortune 500 (Shen, 2018). These are all technology-based organisations with large amounts of revenue to invest in the development of faster, smaller and more efficient computing technologies.

Cinemas should take a proactive step into this ubiquitous future before finding themselves caught with yet-again diminishing attendance numbers due to their lack of preparation to meet the needs of a changing future. They could achieve this by networking more of the existing information about film screenings such as auditorium location and film times through first-party methods like integrating with smart assistants (Siri on iOS and Google Assistant on Android) and map applications on mobile operating systems by partnering with mobile industry-leaders such as Apple (iOS) or Google (Android). Additionally, cinema organisations could develop or improve their own mobile applications to take advantage of the affordances current smartphones include such as playback of high-definition trailers, integrating bookings with a user's calendar, helping to find the location of seats in auditoriums with GPS and in-building beacons and the ability to track films and trailers watched to re-watch and review later.

Cinema and the 'Always On' Generation

Ling argues that "our reliance on mobile communication becomes especially obvious when we find ourselves without it" (2012) and this may extend to cinemas. For many, the one, or two, hours or more that they would have to spend in a cinema and not be instantly available for any kind of communication could cause stress. The feeling of stress from this inability to instantly reply to any mobile communication could be

solved with a location-based mobile service that could automatically share a message with a select group of family and friends that a user is in a cinema and will reply when the film ends as well as providing the other user with an accurate estimate of the time a film will have finished screening.

Another of Ling's claims is that "if for one reason or another we are without a mobile phone, we—and those with whom we interact—have to think up "work arounds" (2012). Because of this claim, I believe one way that cinemas could attempt to attract younger film fans to the cinema more often could be to host 'mobile-friendly' screenings. Research shows that "the majority (53%) of adults say they are usually on their phone while watching TV with others. Six in ten people (62%) over 55 think this is unacceptable, but this drops to just two in ten (21%) among those aged 18-34" (Ofcom, 2018). If over half of UK adults currently use their phone whilst watching TV with others, it may be that they would also like to be able to do the same whilst watching a film in the cinema. Current cinema etiquette is very much anti-phone with cinema organisations playing pre-film notices to discourage phone use in a cinema screen. This is partly due to social rules established to not distract others in a dark cinema screen with the blaring light of a mobile phone screen but also due to film studios being conscious of the high-definition video recording affordances that smartphones include which could allow easier illegal recording of rights-protected film sequences. To combat the threat of illegal recordings, some cinemas in Japan have already begun to trial placing "mega IR [infra-red] lights behind the screen (which are invisible to the human eye) … ruining camcorder footage" (Wilson, 2009).

A solution

One way that I believe cinemas could increase attendance is to digitise and encompass the smartphone within the act of watching film trailers at the cinema to appeal to smartphone users who like to quantify their lives with mobile applications. My prototype design, CineMe, is an application targeted at individuals to allow easier tracking of what they watch in cinemas, the trailers shown before the films they watch in cinemas as well as offering additional exclusive content such as interviews and behind-the-scenes videos. Of the 35 survey respondents, 45.7% remembered either “some” or “hardly any” trailers, showing that there is an opportunity for a system to be created enabling those who struggle to remember trailers to be able to recall them after a film screening which is what CineMe enables.

Statistics from the UK Cinema Association show that although cinema attendance numbers have levelled off and stopped dropping, they haven’t grown considerably for over ten years. I believe the CineMe application could reinvigorate the passion for cinema in many users through an easy-to-use design as well as providing information relevant to people’s existing cinema visits, enhancing the visits beyond just the cinema itself, whenever and wherever they check the CineMe application.

My primary research into current cinema applications showed they are fairly simple and often just mobile websites encompassed in a native application ‘shell’ including the VUE cinemas application. I designed CineMe to be a fully native application that would be easy-to-use with a 3-section design. These three sections are ‘Explore’, ‘CineMe’ and ‘Profile’. The Explore screen holds a list of films a user has watched to be able to easily recall and rate with a simple thumbs-up or thumbs-down choice.

Within a watched film screen, the application shows the trailers in order of playback for the users to re-watch or add to their ‘watch list’. The trailer playback order information would be sourced from the schedules provided by cinema organisations. I believe that if cinema organisations were pitched the idea of CineMe, they would become on-board to provide this information due to the nature and aim of the application to encourage more frequent cinema visits, which would result in higher revenue for cinema organisations.

The CineMe screen is the most unique affordance of the application and as such, is accessible from all areas of the app through a tap of the pink round button in the lower centre of the app. A user has to allow the application permission to use their smartphone camera, without this permission, there is no easy way of tracking cinema attendance and the users is informed they need to allow camera access. Once this access is allowed, the app shows a viewfinder that will scan compatible CineMe QR Codes that would be displayed outside cinema screens. These would be unique to each screen and the application would be able to locate the next film for a specific screen from a database of film screenings, provided by the cinema organisation. However, the app is also designed to work if a cinema organisation hasn’t opted to place CineMe QR Codes in their cinema. If this is the case, a user can tap the “No CineMe QR Code” button and manually search for the film title they are about to watch. The application then asks for permission to use the device’s microphone. CineMe will then manually listen for audio that matches audio of film trailers provided by film studios. Because this is only an audio scan, studios can be put at ease that their film content won’t ever be stored on CineMe servers, only the audio. After 30 minutes from the start of the trailers, the application will automatically save the film details, trailers seen and any CineMe extras into the users ‘Watched

Films' section and inform them the film is about to begin and to put their phone away to avoid distractions during the actual film. 40% of my 35 survey respondents said they would use a "an app that tracked your cinema visits and trailers watched to recall later by scanning a QR Code in the cinema", indicating that, even in this small sample of mainly young adults, the use of a smartphone to record cinema visits and trailers watched would be welcomed.

Future affordances could be added to the CineMe app to enrich the in-cinema experience even further following my research and recommendations. One such example could be the ability to use a user's Bluetooth functionality on their phone to automatically locate beacons in cinema screens that could reduce a CineMe step and automatically record a cinema visit without needed a CineMe QR Code or trailer audio scan at all. A final future affordance could be the ability to gain loyalty from cinema visits to save money on future screenings, further encouraging return visits.

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Specification Report

CineMe

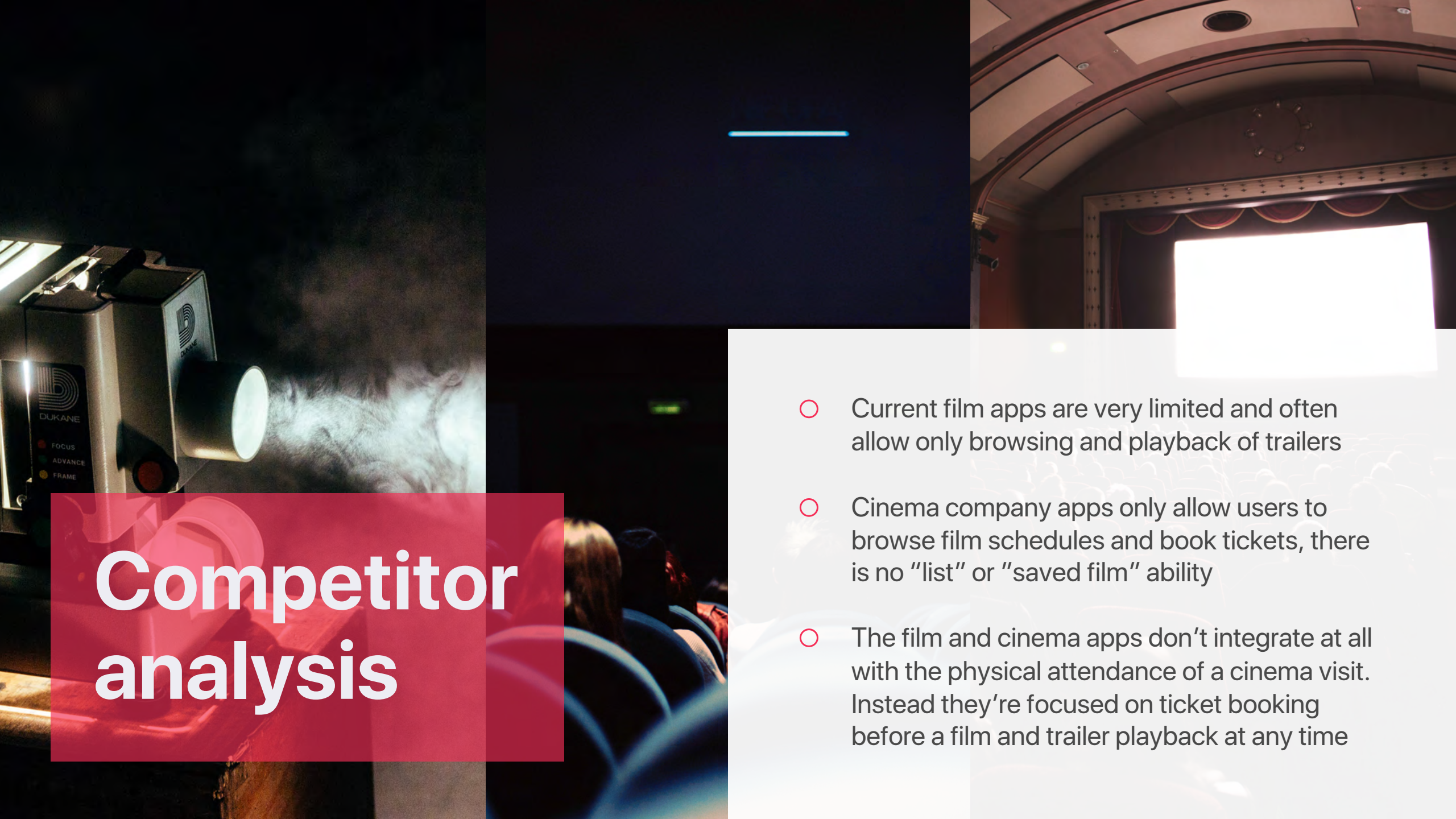
Making cinema visits more memorable

Allowing storage and recall of cinema visits, trailers and extras easily

CineMe is an app that allows people to save their cinema visits to be able to recall what they watched, when and where as well as replay trailers at a later time

Project originality

- CineMe is a unique experience that blends the real and virtual world together to enrich the lives of cinema goers
- Users are able to easily save their cinema visits at supporting cinemas that have unique CineMe QR Codes for each screen
- If a cinema doesn't support CineMe QR Codes, the app is able to use the user's smartphone microphone to match trailers played and store them in the app for playback later
- Initially designed as a collection app for enthusiastic and passionate cinema lovers, the app could later integrate ticket purchasing for films at cinemas, merchandise sales and social networking elements such as the ability to see what films friends have seen
- The ability to add films to the a watchlist could encourage users to visit cinemas more frequently if they know there are films they want to see based on trailers they saved from previous cinema visits

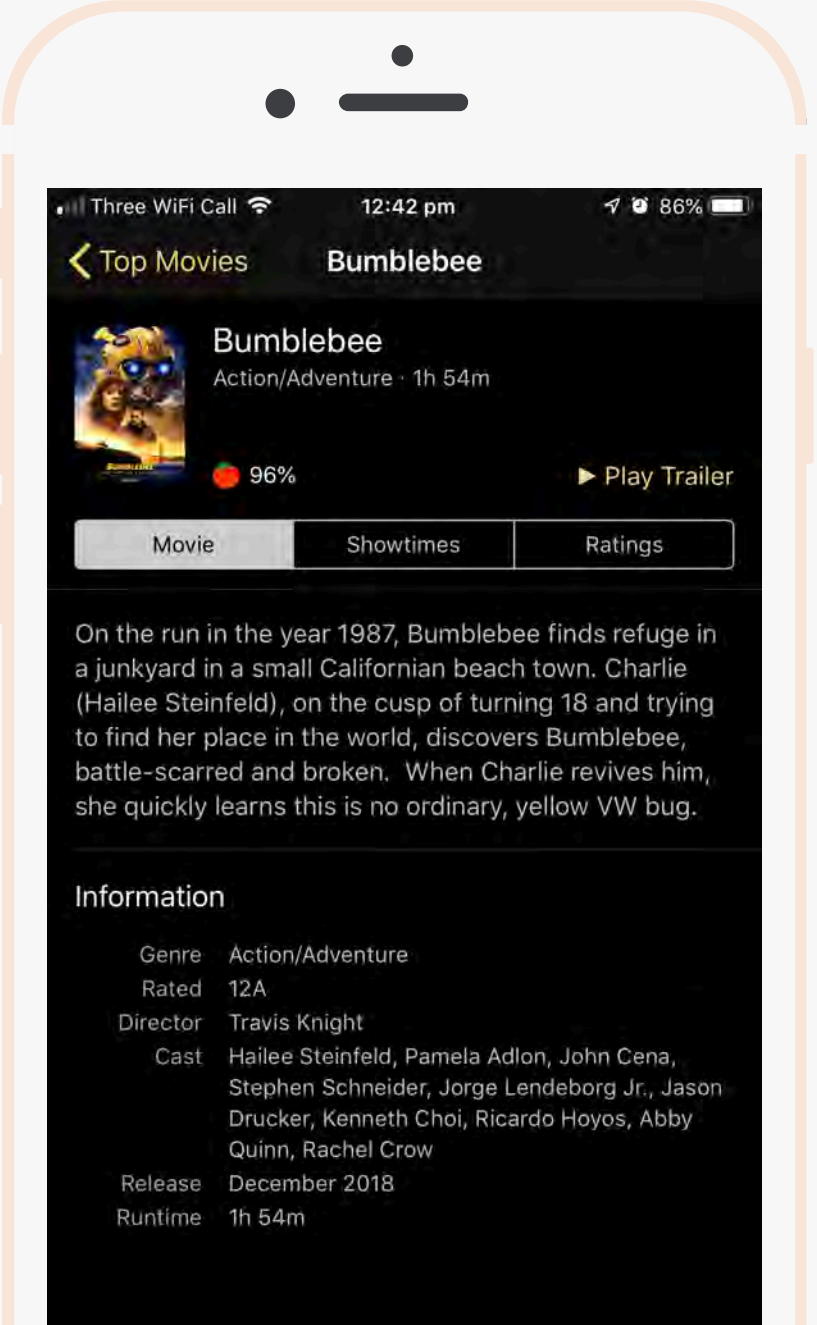


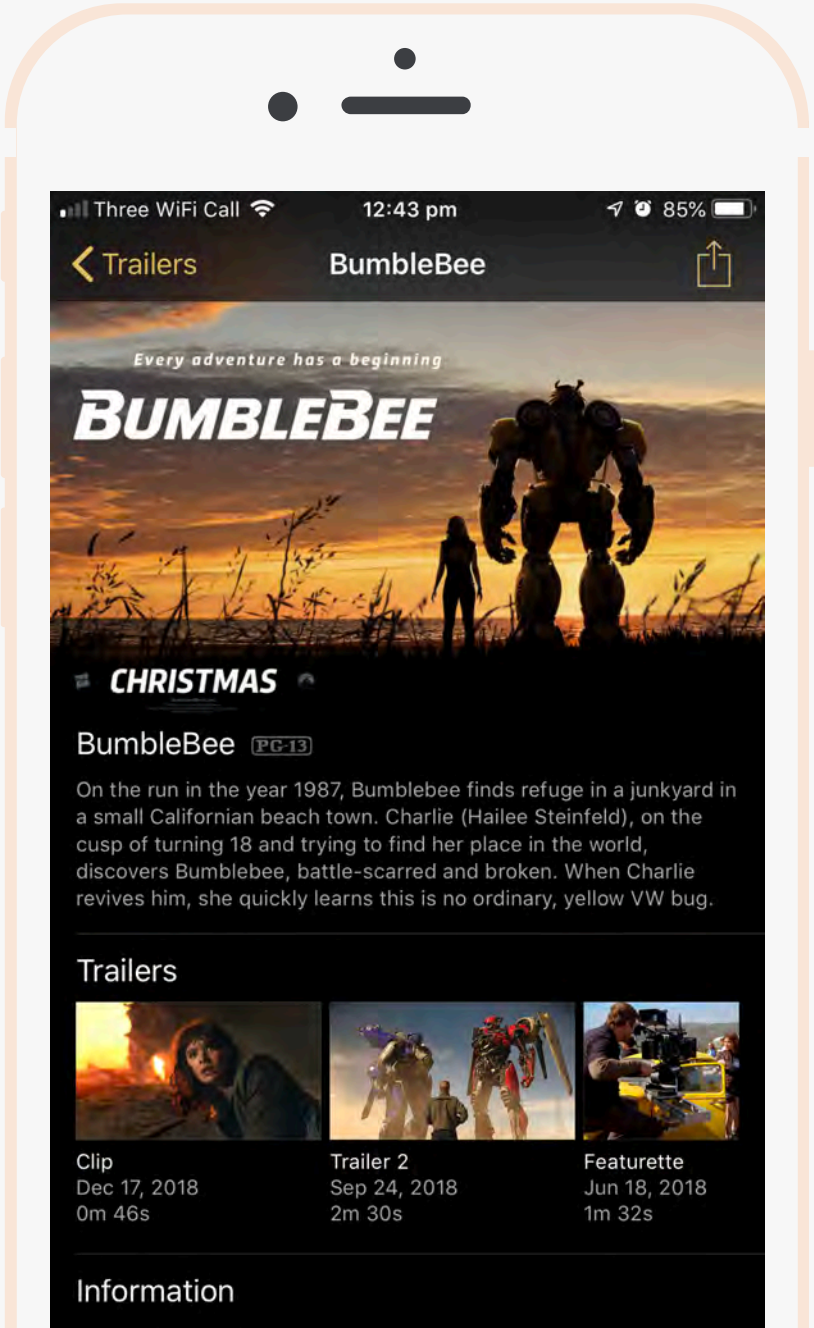
Competitor analysis

- Current film apps are very limited and often allow only browsing and playback of trailers
- Cinema company apps only allow users to browse film schedules and book tickets, there is no “list” or “saved film” ability
- The film and cinema apps don’t integrate at all with the physical attendance of a cinema visit. Instead they’re focused on ticket booking before a film and trailer playback at any time

Cinemap

- This third party app isn't made by a specific cinema company but uses APIs to be able to display film times at "any cinema in the UK"
- Users are able to browse film times at cinemas near their smartphone's location
- The app integrates Rotten Tomato review scores to show users other people's ratings
- Users are able to playback trailers for films in the app but there is no ability to "save" or "favourite" a film



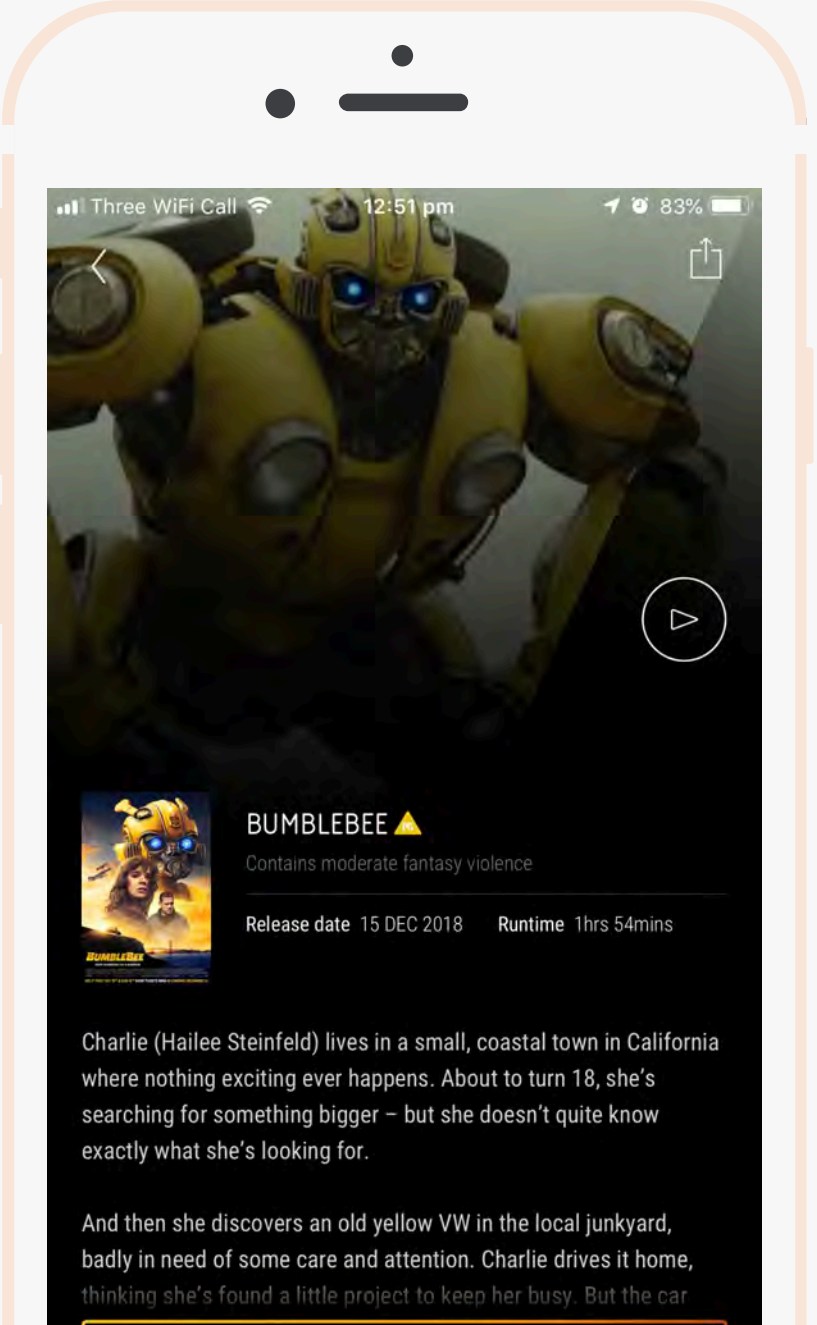


iTunes Trailers

- The iTunes Trailers app is created by Apple and allows users to browse popular trailers for films
- Many of the film trailers available are for films currently in cinemas and users can use the share icon (in the top right hand corner of the app) to be able to add films to their "favourites" list
- As well as trailers for films currently in cinemas, the app heavily promotes trailers for films that are available to rent or purchase on Apple's iTunes Store, indicating that there may be a commercial drive to create this app, ultimately trying to encourage users to use and spend more money with other Apple services

VUE

- The VUE application has recently improved to be a native application rather than just VUE's website wrapped in an application shell
- Despite being a native application, users are only able to browse currently film screenings, book tickets and play trailers for current films
- There is no ability to view trailers of films that will be screened in the cinema at a much later date unlike Cinemap or iTunes Trailers offer
- Additionally, users are unable to "save" or "favourite" films into a list on the VUE app

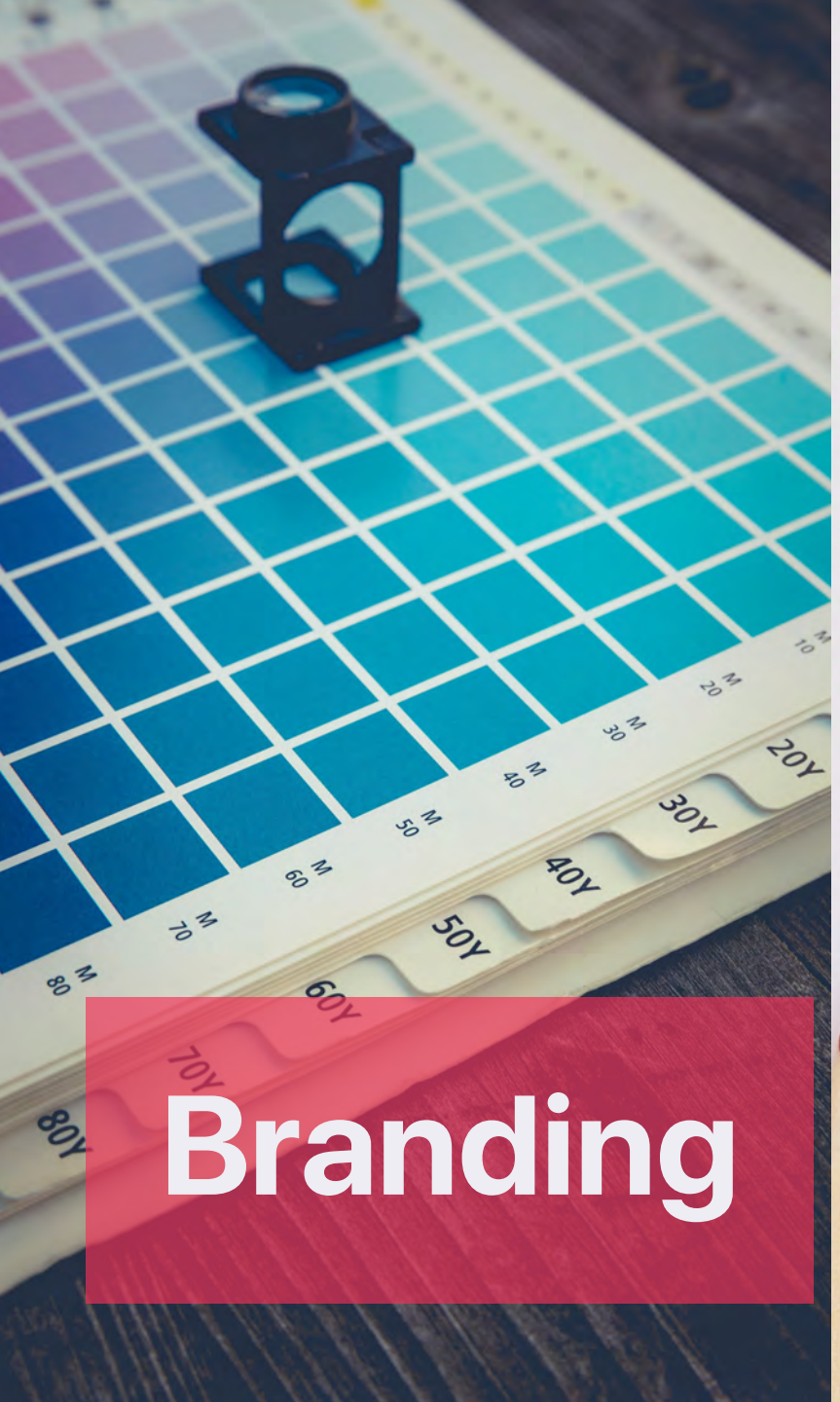


Why they don’t work

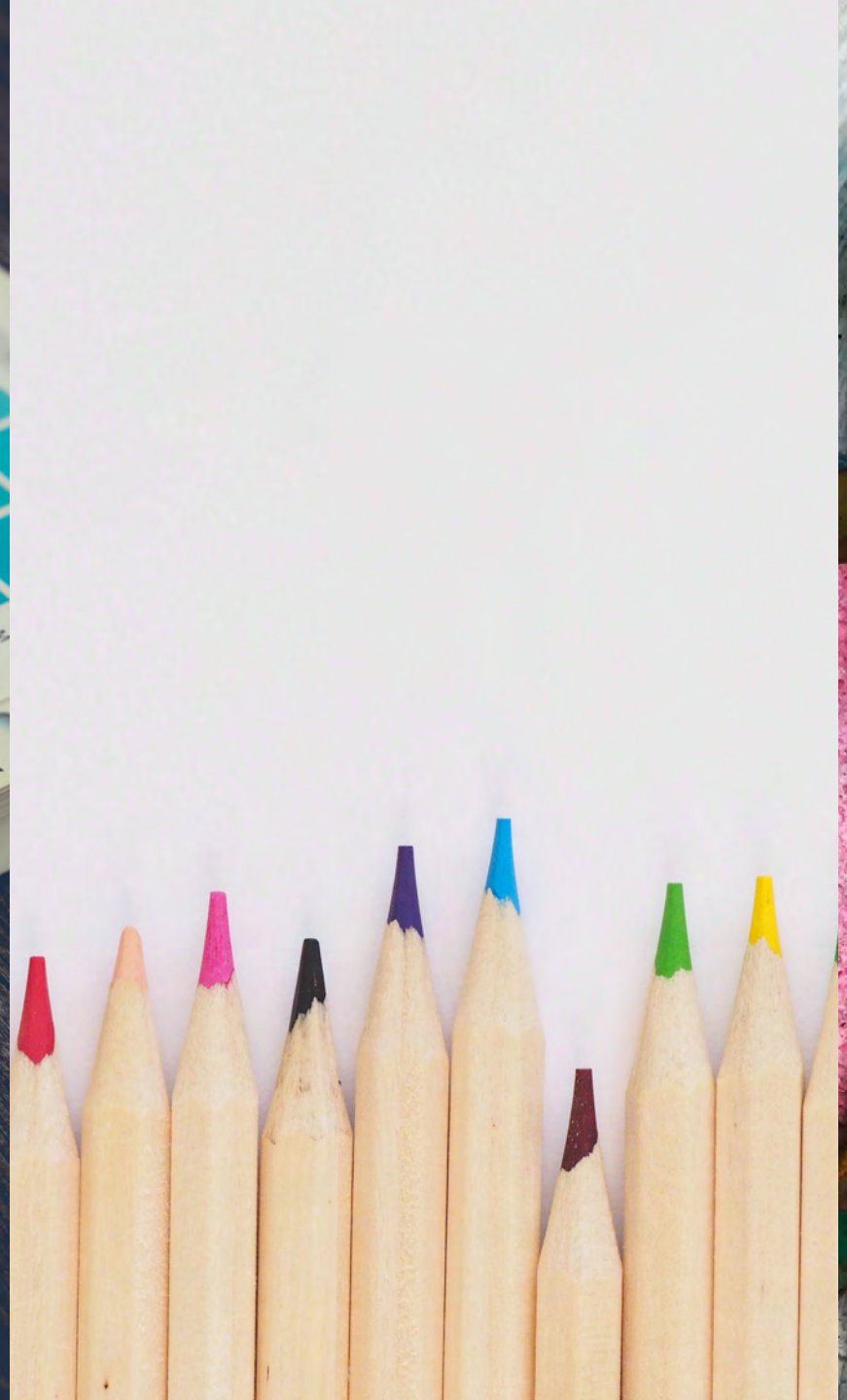
Current app selection is too focused on one specific task per app

There is no easy way for a user to save a list of the trailers they have enjoyed to be able to recall later

There’s currently no way to digitally enhance the physical visit to a cinema

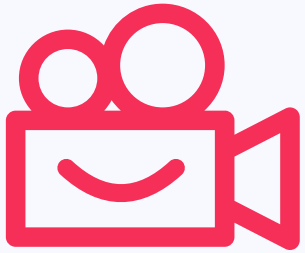


Branding

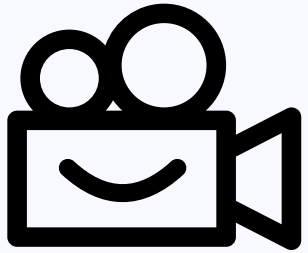


Brand identity

Primary logo



Mono logo (dark)



Mono logo (light)

Icon

Text logo

Text logo (dark)

Text logo (light)

Secondary icon

Brand identity

Primary colours

Dazzle Pink	Red Carpet
Hex value: #F52F57	Hex value: #A20021

Secondary colours

Beam	Tangerine
Hex value: #F79D5C	Hex value: #F3752B

mono colours

White	Shadow Silver	Charcoal	Black
Hex value: #FFFFFF	Hex value: #EDEDF4	Hex value: #4A4A4A	Hex value: #000000

Example uses

- Primary logo
- Headings
- Icons

- Links/URLs
- Secondary icons

- Printed documents
- Paragraphs

Brand identity

Primary font

San Francisco

Black

Bold

Regular

Thin

Secondary font (used as a backup)

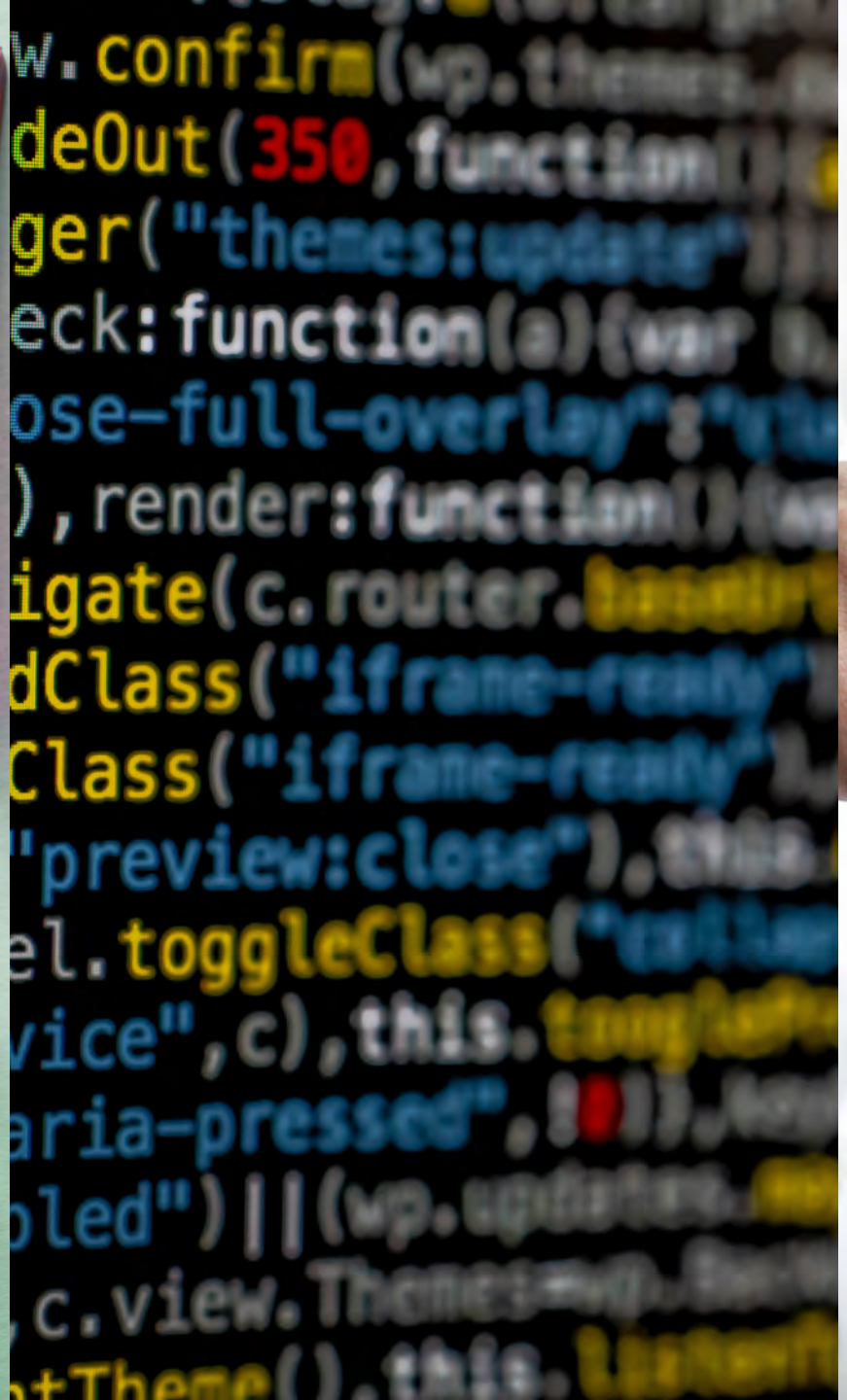
Helvetica Neue

Bold

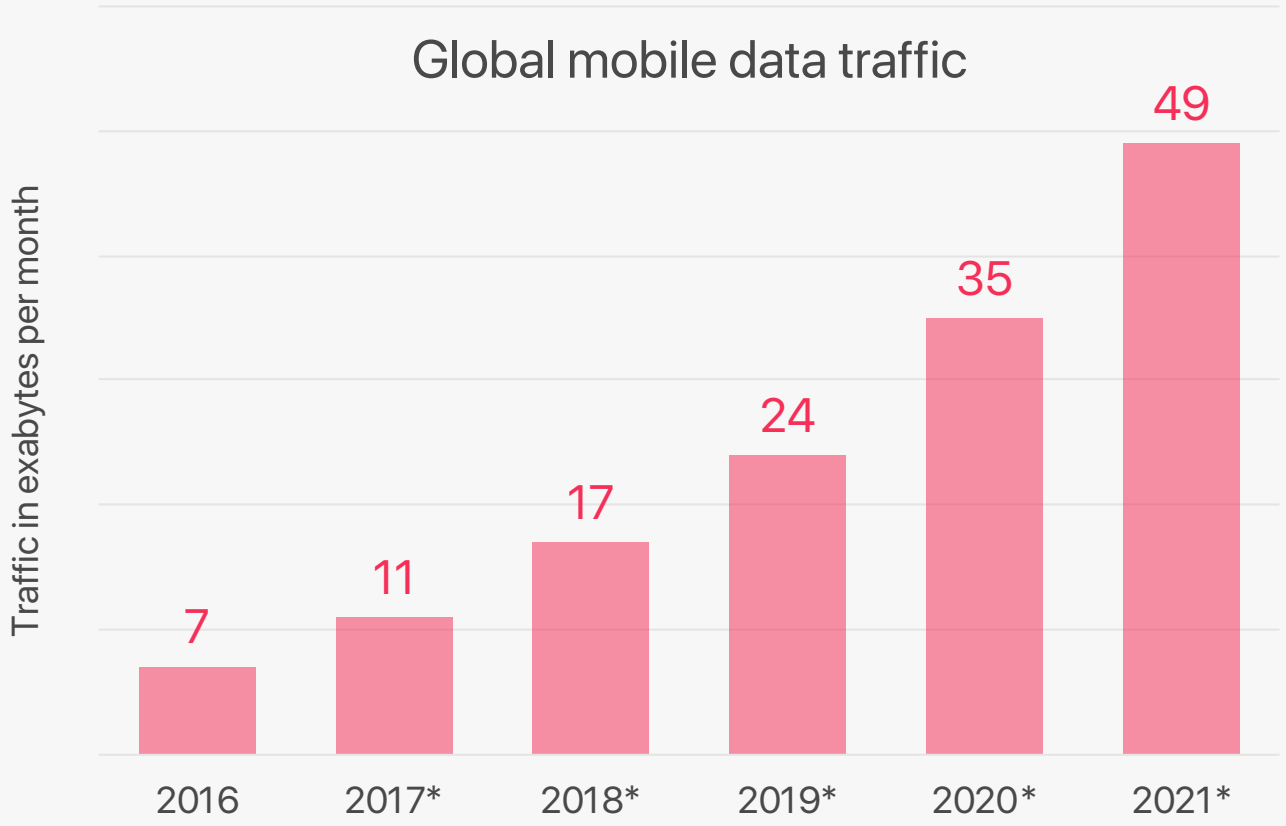
Regular

Thin

Concept



Why now?

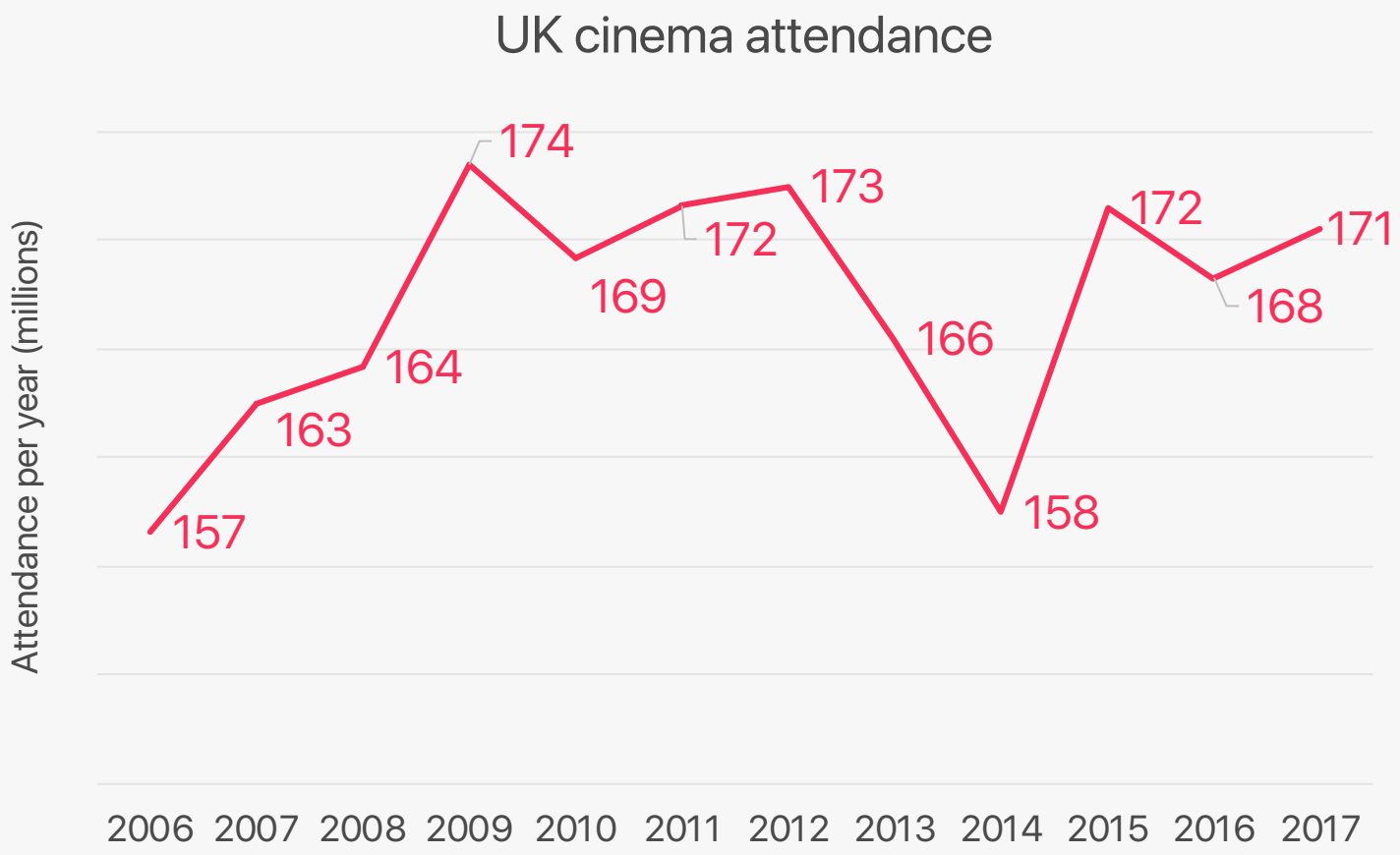


*Forecast

Source: Statista (2017) https://www.statista.com/statistics/271405/global-mobile-data-traffic-forecast/

- With a growing number of mobile internet users worldwide, people will be using their mobile devices for more, in more locations
- With increased mobile data traffic, cellular networks will have to grow to allow for Internet access in more places for more people than ever before
- An increasingly connected audience will demand recommendations and access to the things they care about at any time

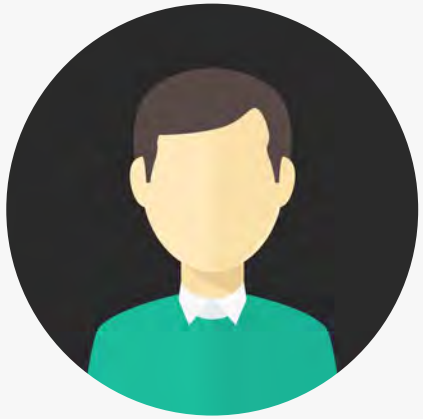
Why now?



- Cinema attendance is fluctuating but, it has increased within the last 3 years
- Film and cinema companies are commercial businesses so a new way to engage cinema goers and film lovers that could result in higher cinema attendance would be welcomed

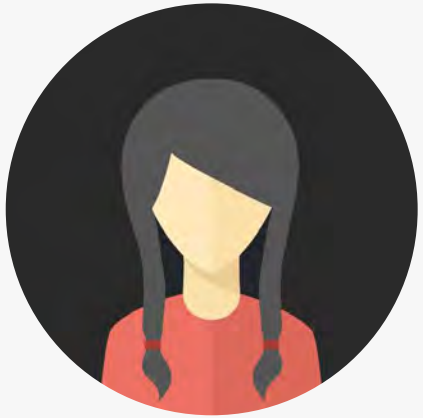
Source: UK Cinema Association (2018) https://www.cinemauk.org.uk/the-industry/facts-and-figures/uk-cinema-admissions-and-box-office/annual-admissions/

User personas



Danny,
young adult
30 years old

- Already an active smartphone user
- Values experiences over possessions
- Likes to have many options when watching films



Jess, student
22 years old

- Loves getting extra than everyone else
- Likes to receive “exclusive” things for using certain services
- Enjoys being able to see what she watched previously

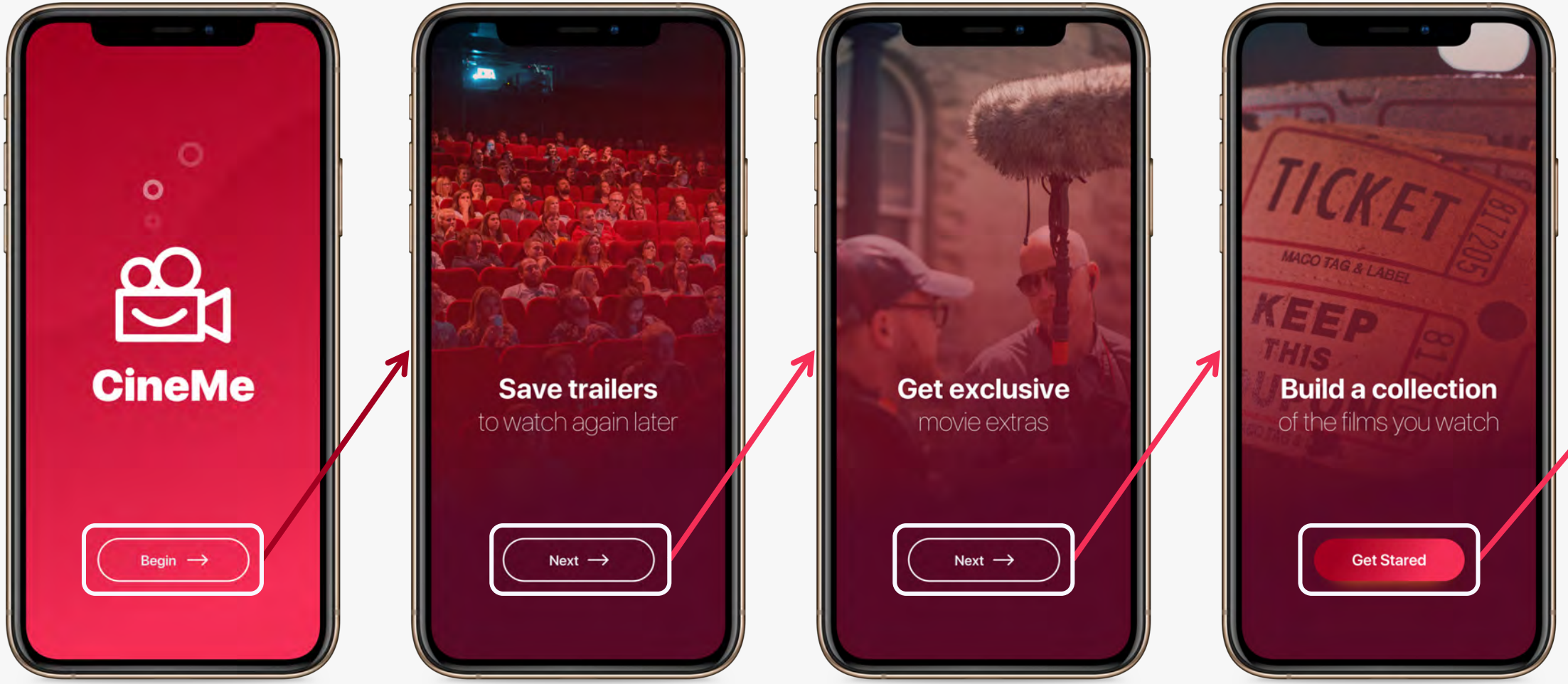
Concept

Interactive prototype

- I have created a functional, interactive prototype for CineMe
- The prototype was designed with the screen design software, Sketch and the prototyping functionality was created with InVision
- Use the link below or click the screenshot on the right to experience the interactive prototype
- https://invis.io/VGPSGHGF8AH#/338824336_0-1_Launcher

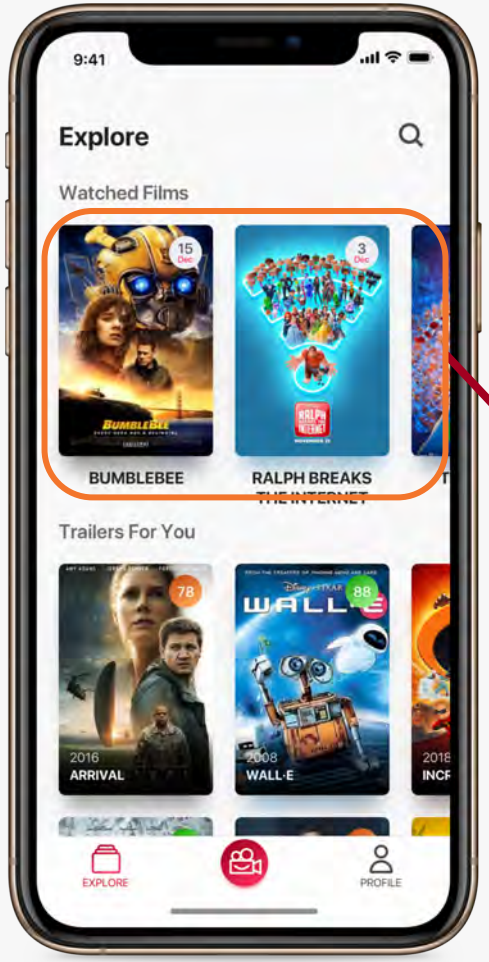
Concept

1.1 Onboarding

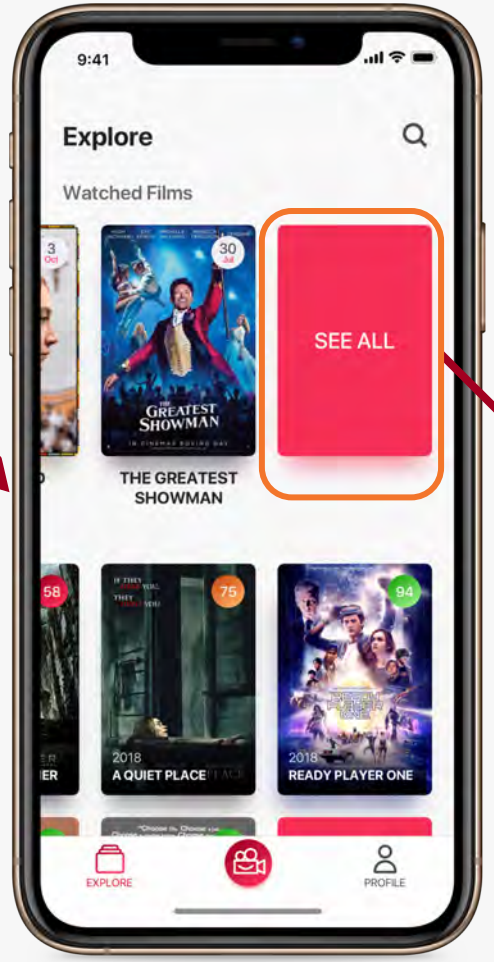


Concept

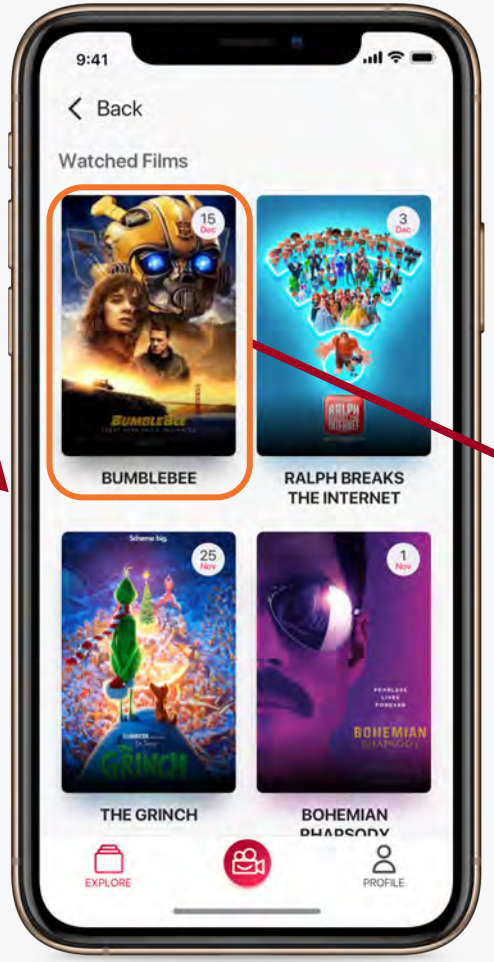
2.1 Explore



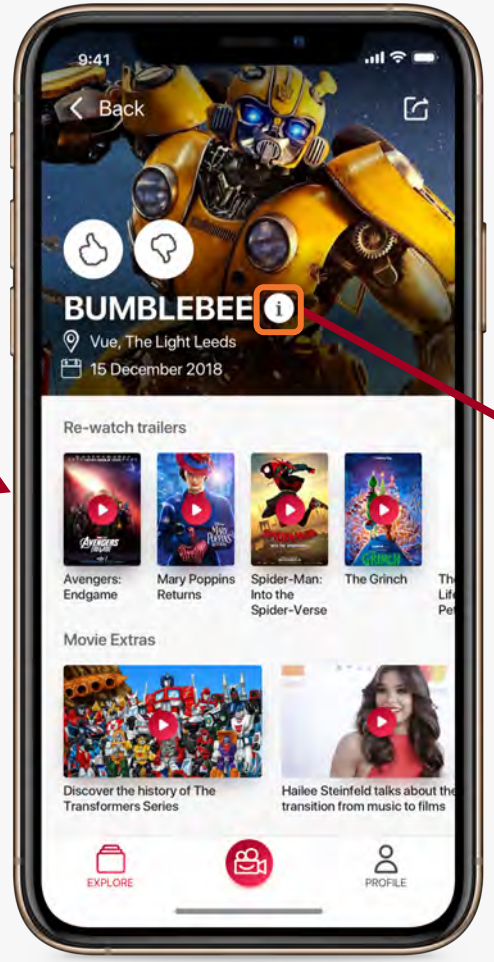
(right-to-left swipe)



(tap)



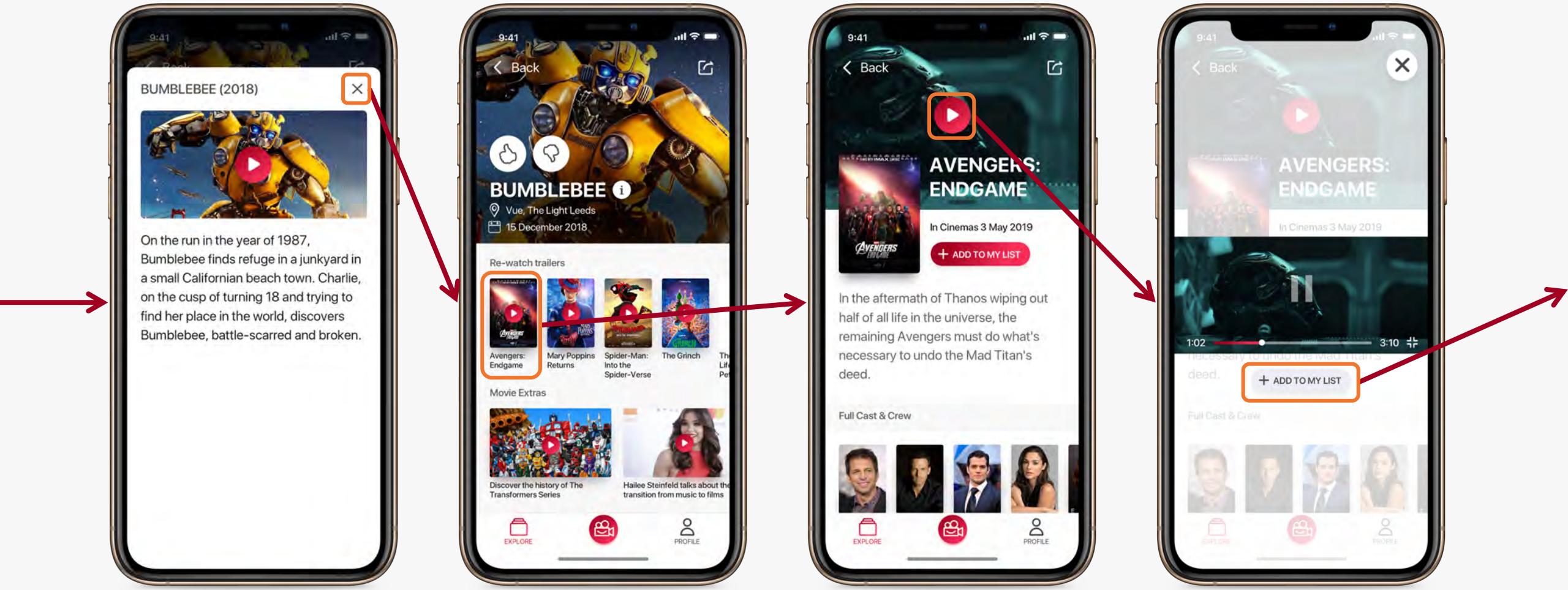
(tap)



(tap)

Concept

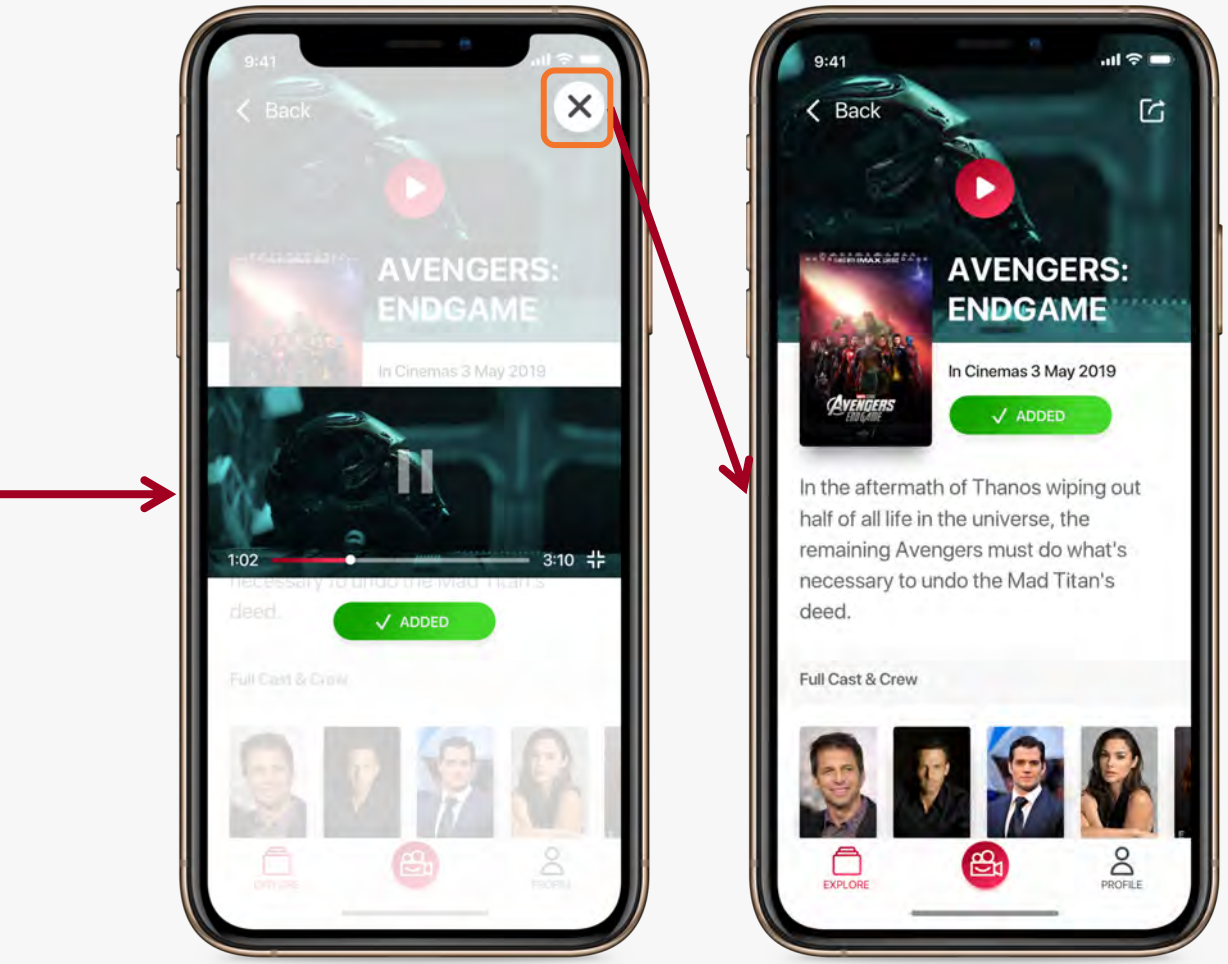
2.1 Explore



(tap) (tap) (tap) (tap)

Concept

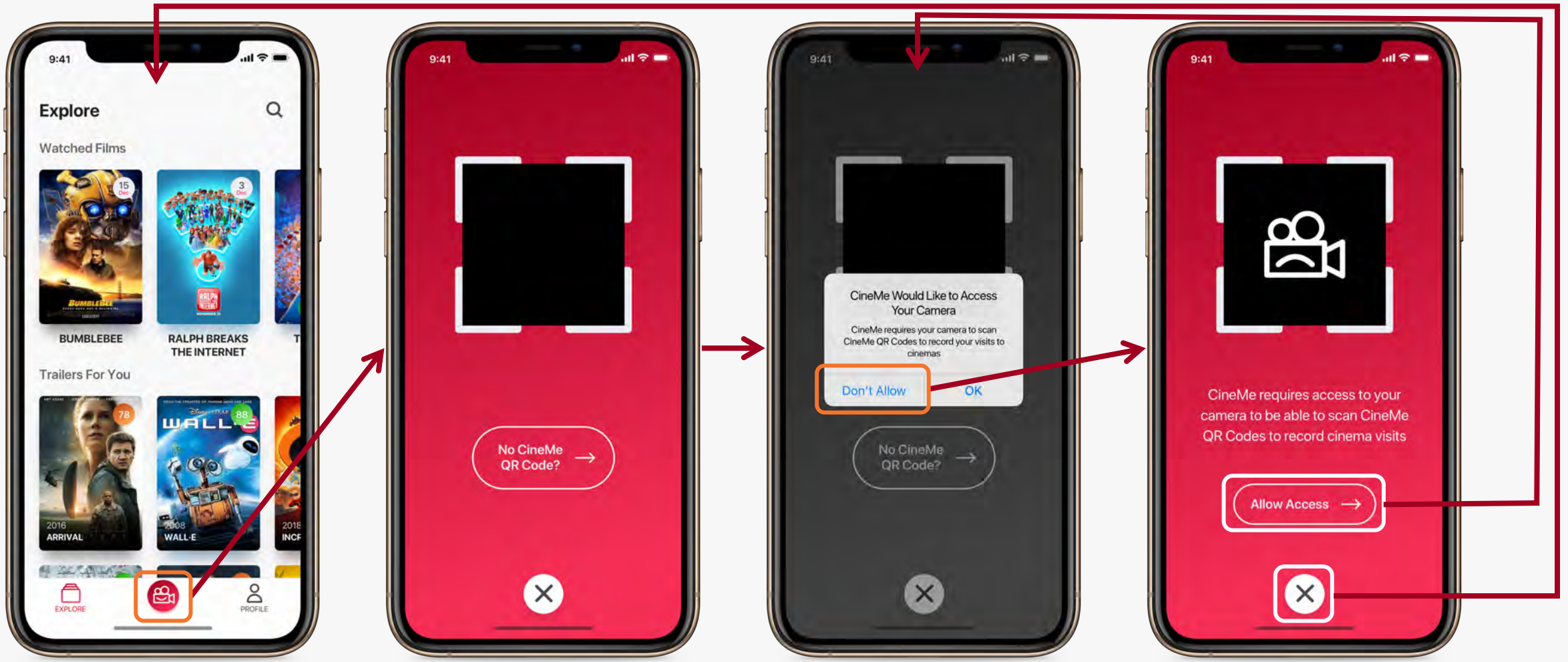
2.1 Explore



(tap)

Concept

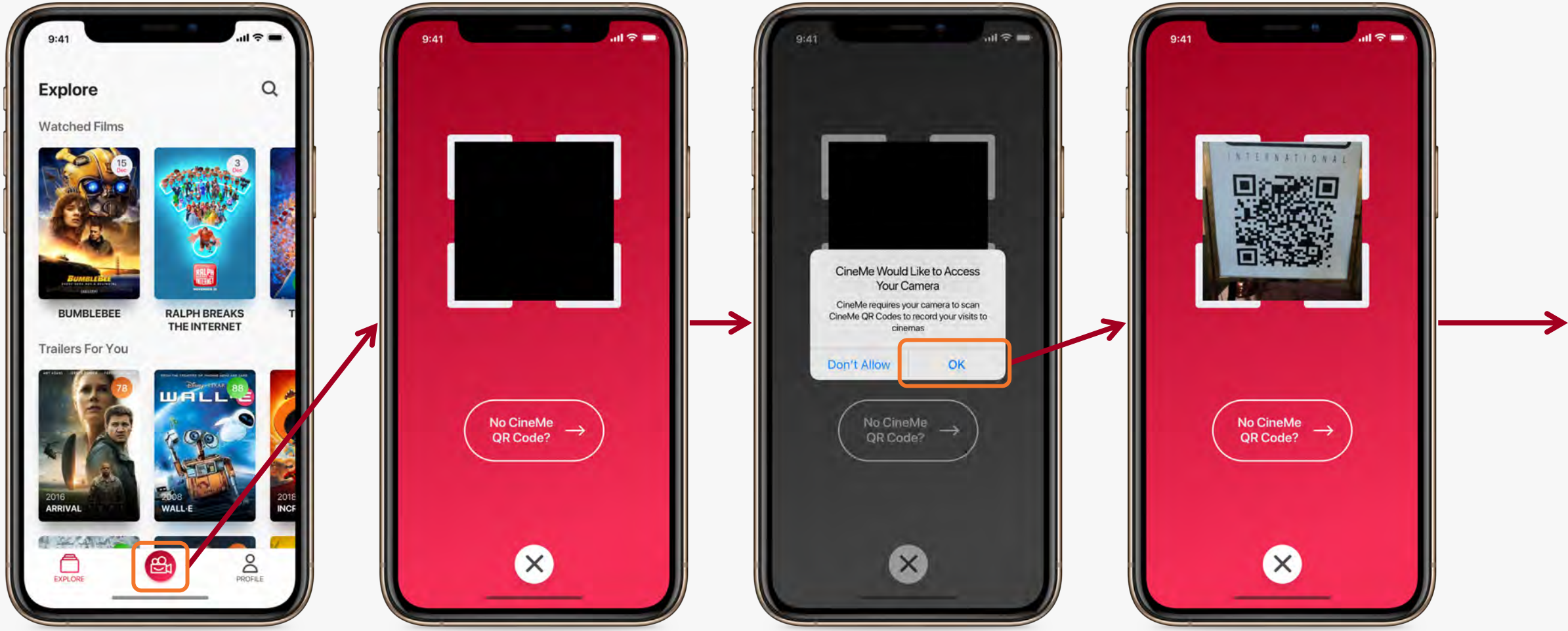
3.1 CineMe (unsuccessful permissions)



(tap) (100ms delay) (tap) (tap)

Concept

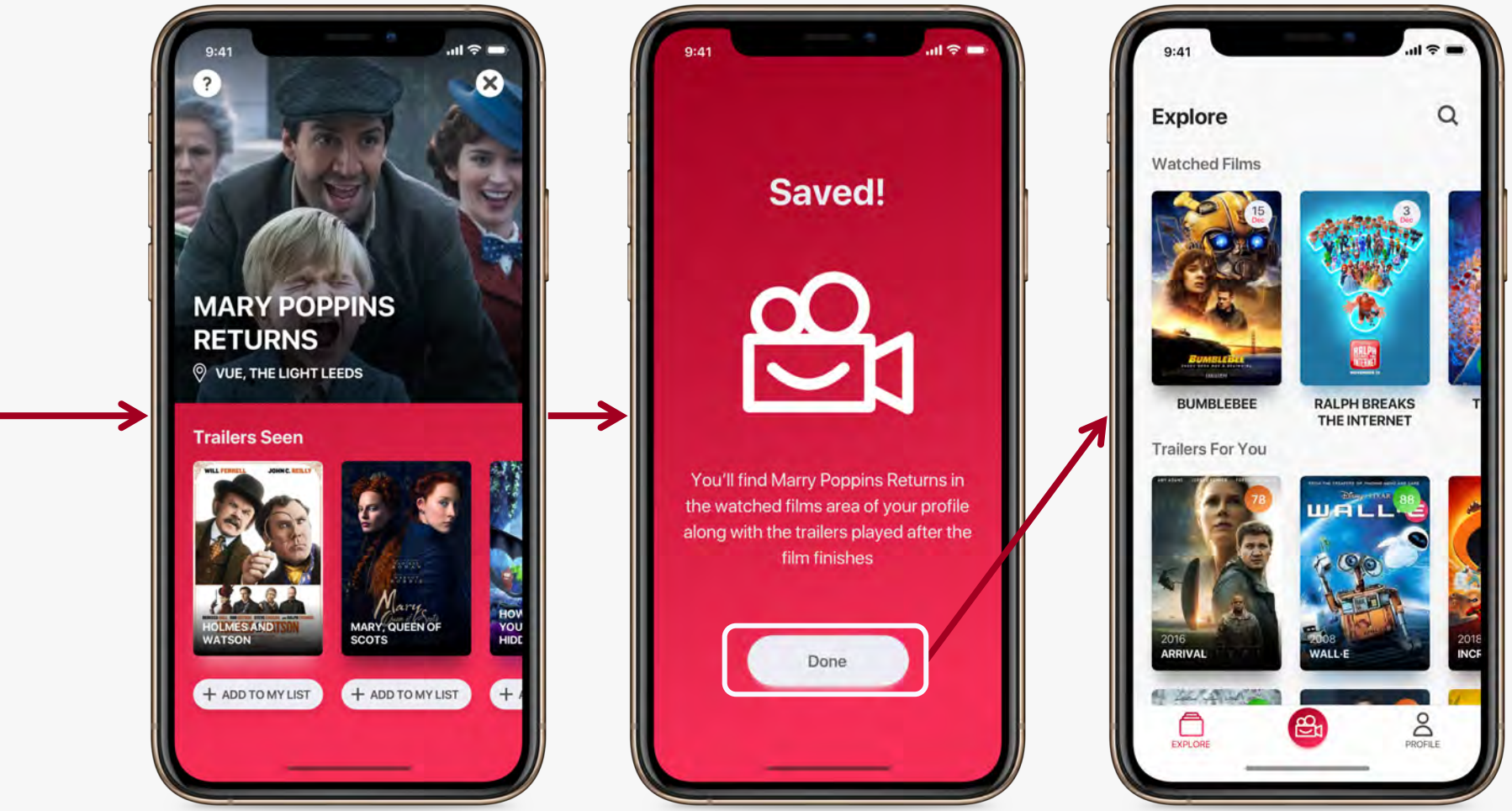
3.2 CineMe (successful permissions – QR Scan)



(tap) (100ms delay) (tap) (200ms delay after scan)

Concept

3.2 CineMe (successful permissions – QR Scan)

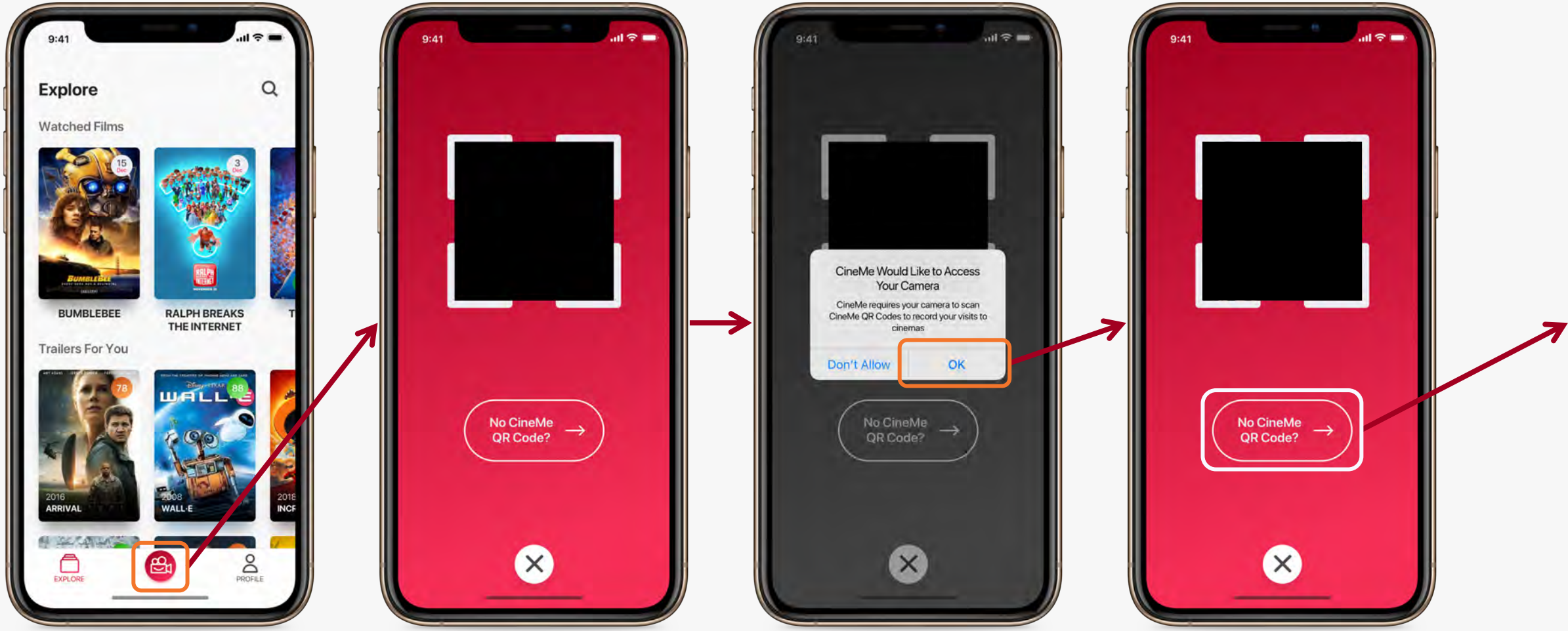


(trailers auto add. Transition when film begins)

(tap)

Concept

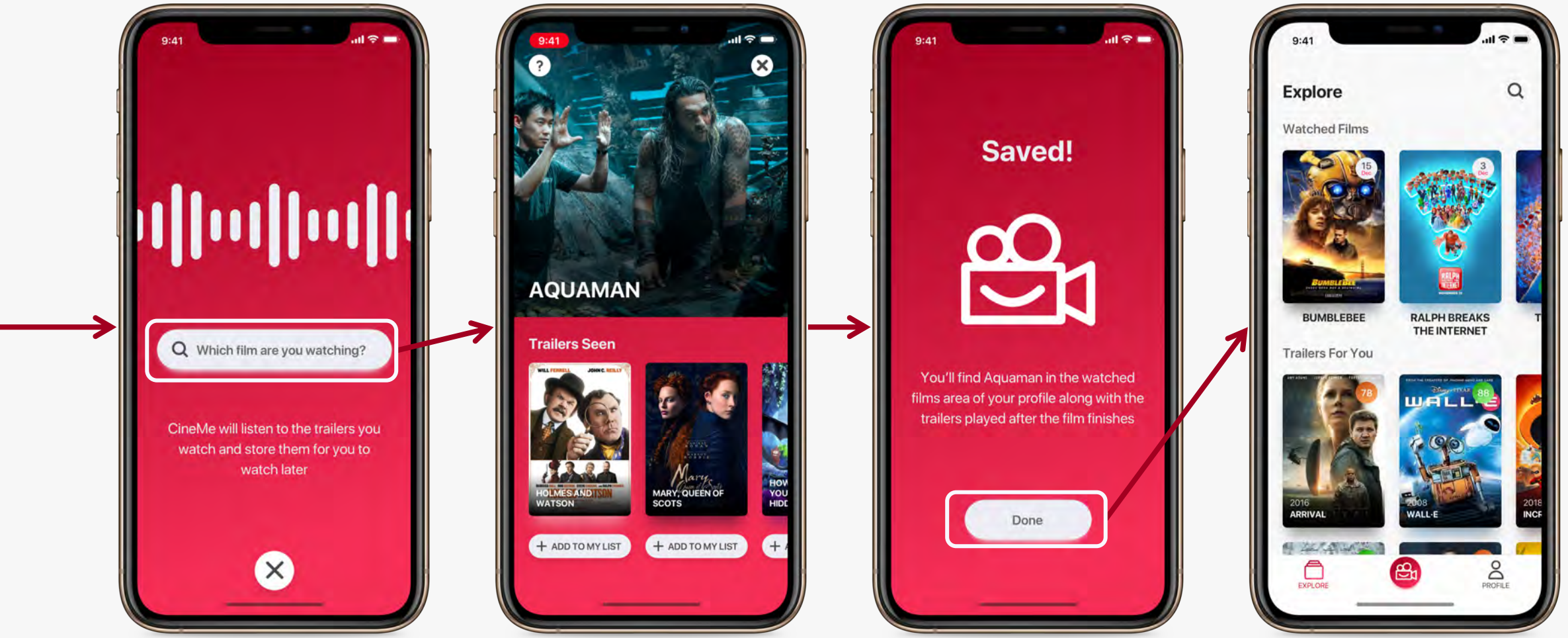
3.3 CineMe (successful permissions – Audio Scan)



(tap) (100ms delay) (tap) (tap)

Concept

3.3 CineMe (successful permissions – Audio Scan)



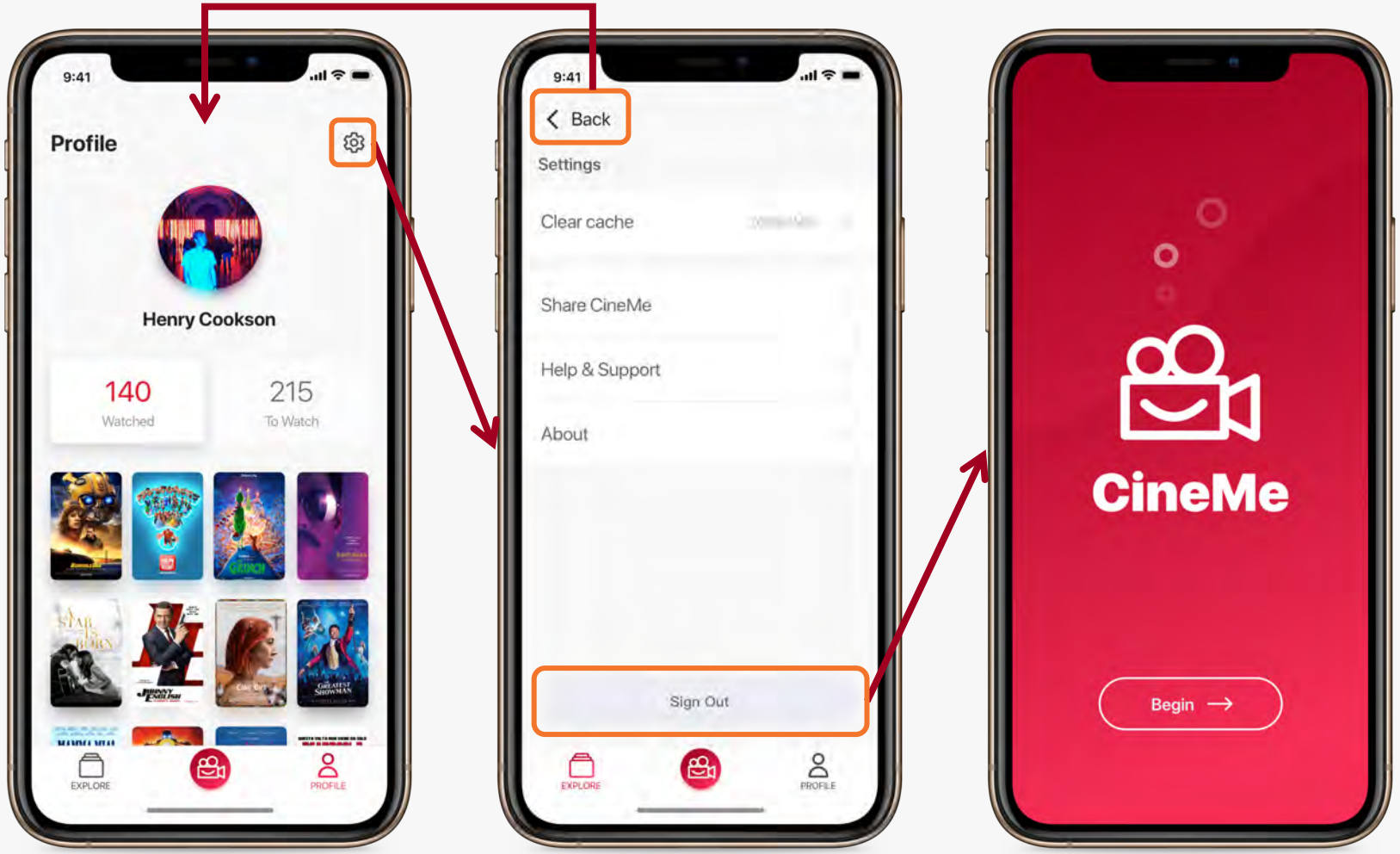
(tap and type film name)

(trailers auto add. Transition when film begins)

(tap)

Concept

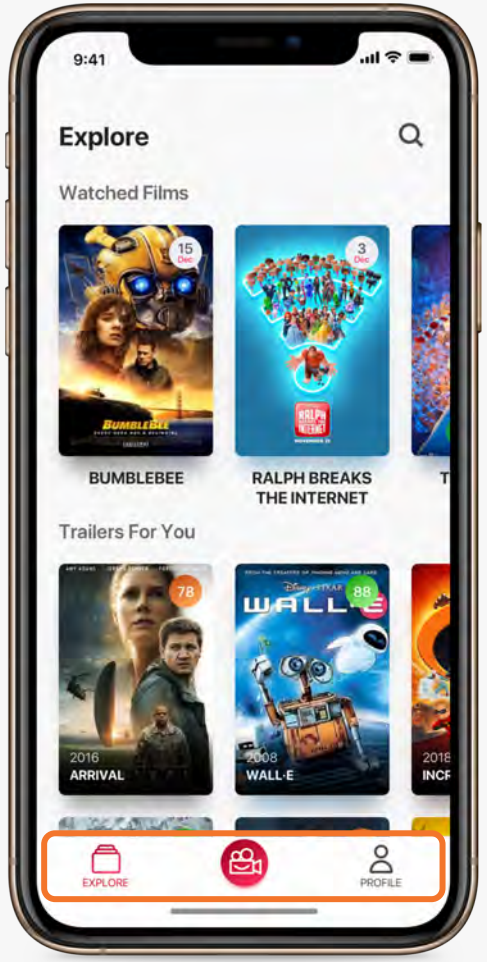
4.1 Profile

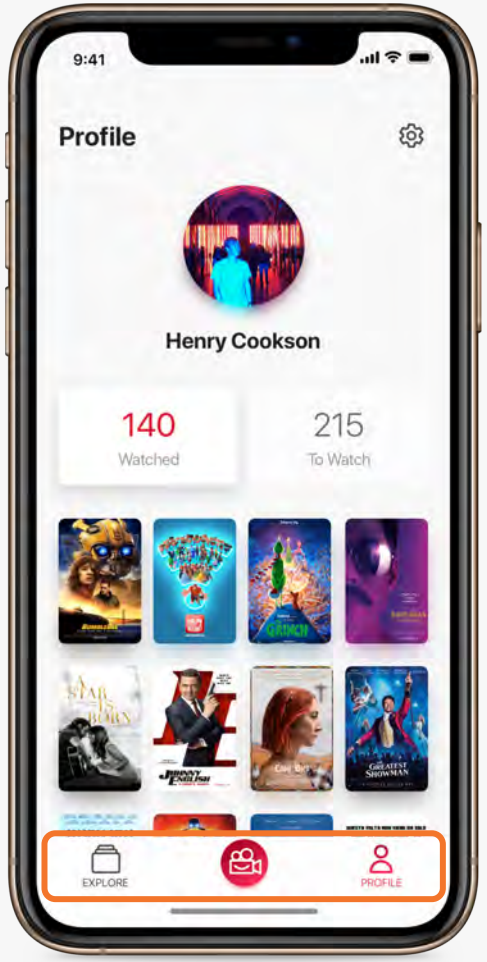


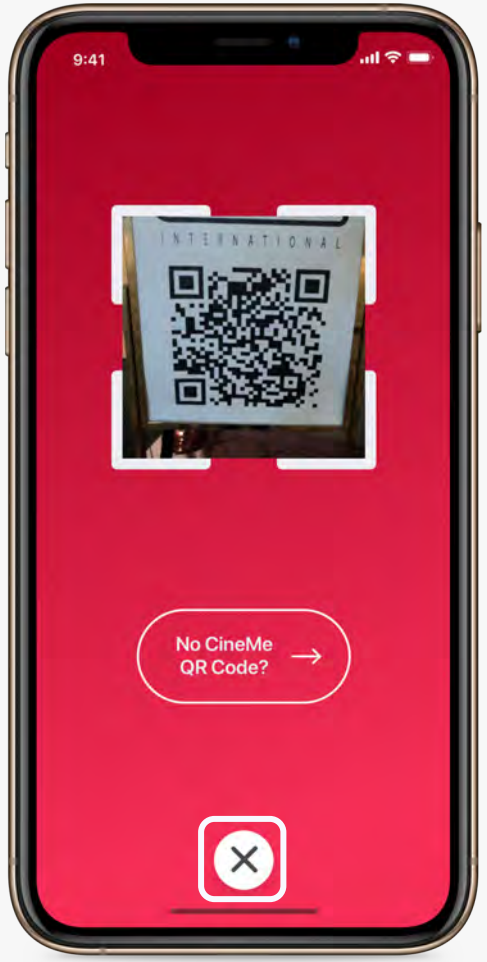
Concept

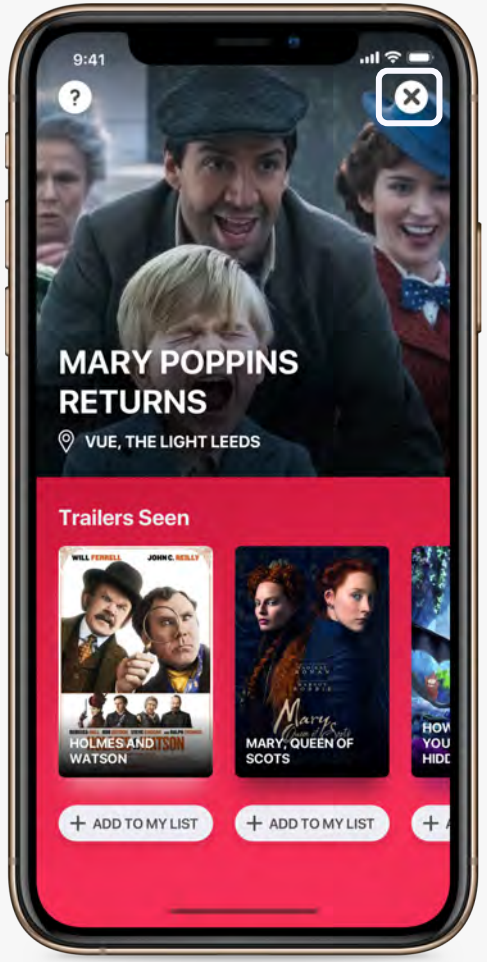
5.1 Navigation

- Explore, film info and profile screens will have the bottom navigation bar visible
- CineMe scan screens will have a close button









System planning

Risk assessment

Research risks

Risk	Likelihood	Severity	Problem	Resolution
Research shows that cinema goers don't want to download another app for cinema visits	Low	High	People have limited storage space on their phones and may already use multiple apps to browse films and book cinema tickets	Ensure some of the system budget is designated for advertising and marketing to spread the benefits of CineMe to current cinema goers
Cinema goers don't want to use their smartphone whilst in cinema auditoriums	Medium	High	If people are uncomfortable using their smartphone in cinema auditoriums, they will be unable to fully utilise CineMe	Ensure CineMe is designed to only work during the trailer section of a film screening and advertise for CineMe in the trailers to encourage use to track cinema visits
Cinema companies don't want to invest in placing CineMe QR Codes in their buildings	Medium	High	Cinema companies may be unwilling or sceptical to place CineMe QR Codes in their cinema buildings	Provide a robust plan to cinema companies to ensure they see the value CineMe could add by driving cinema goers back to cinemas more often

Risk assessment

Design risks

Risk	Likelihood	Severity	Problem	Resolution
App design is too utilitarian and minimal	Low	Medium	The app design is created and users perceive it to be too “minimal” and not have enough “character”	Ensure that film covers and artwork have large parts to play in the app design as these will add extra flare and colour to the app
The app design is too intruding and bright for comfortable use in a dark cinema auditorium	Medium	Medium	If users and/or cinema companies report back that the app is too distracting even during the trailers, it could put users off CineMe	Potentially lower the smartphone display brightness (OS dependant) or use a dark design to reduce the chance of bright colours distracting cinema goers
The app design is too confusing for users to re-watch film trailers	Low	High	If the app design was too confusing, people may not know how to find the trailers and films they have already watched to re-watch later	The app design has three sections for simplicity and “watched films” should be placed at the top on the first screen when the app is opened, ensuring users can re-live their cinema experiences

Risk assessment

Production risks

Risk	Likelihood	Severity	Problem	Resolution
App takes longer to produce than first expected	High	High	The developer may run into challenges unseen when planning and the app could take longer to produce than first expected resulting in a late launch	Ensure the plan for the system is through and includes extra time for unexpected bugs or issues to be resolved for a launch date
Different OS versions would result in inconsistencies	Low	Medium	The system is designed as an app to run on both iOS and Android. If the OS development languages prevent certain affordances, the app may not work consistently on different smartphones	The app only uses the camera and microphone. No cutting-edge features that are OS dependant are included in the designs so the likelihood of this is low
Film studios are hesitant to provide audio clips of trailers for the Audio Scanning to be able to listen for	Medium	High	Film studios may be hesitant to provide rights-holding trailer audio to CineMe for the Audio Scan ability to work properly	Provide film studios with adequate proof there is a long-term plan for the growth of CineMe and how it will add value to the cinema and industry to reduce their worries

Risk assessment

Post-production risks

Risk	Likelihood	Severity	Problem	Resolution
Cinema companies remove CineMe QR Codes	Low	Medium	Cinema companies may remove CineMe QR Codes from their screens	Keep cinema companies updated with user numbers and positive stats that CineMe has gathered to ensure they see the value that supporting CineMe has for them as a cinema
Growth in user numbers for the CineMe system is low	Medium	High	Knowledge and use of CineMe may be low and growth of users numbers may be weak	If growth is slow, ensure that more effort and money is dedicated to marketing the CineMe app as well as carrying out more primary research to gather opinions about CineMe
App users don't return often to CineMe	Medium	High	The system development, maintenance and growth will rely on users returning to CineMe and if data shows people don't frequently use the app, it's hard to promote the system	Utilise system notification and marketing to enable CineMe to stay visible for cinema goers. Also, ensure the extra film content like interviews are available to watch for CineMe users

System budget

People

Role	Approx. hourly rate	Estimated hours
Project manager	£28.00	100
Designer	£20.00	30
Developer	£25.00	60
User experience	£22.00	20
Marketing manager	£23.00	30

Total people cost: £6,030.00

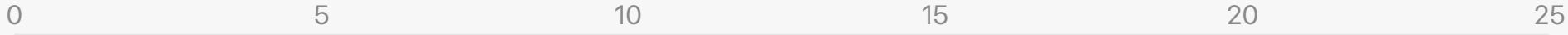
Equipment/software

Item	Cost
MacBook pro	£1749.00
iPhone XS	£999.00
Sketch app (designs)	£95.76
Microsoft office	£76.00 (£9.50 per month)
Apple developer account	£99.00 per year
Xcode	£0.00 (free)

Total equipment/software cost: £3,018.76

Total project cost: £9,048.76

System timescale



	Time (weeks)
Research	2
Pre-Production	2
Design	4
Development	6
Testing	1
Development Round 2	2
Testing Round 2	1
Launch	1
Post-Launch Promo	2
Analysis	2

Total project length (including post-launch analysis): 23 weeks