# Cineplex Mobile App Redesign Final Report

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### ABSTRACT

The system we chose to redesign is the Cineplex Mobile App. The Cineplex Mobile App allows users to view various movie information, find various Cineplex movie theatre locations, purchase tickets via the app, and share via social media. Because the app is available across various platforms and devices, it makes itself widely accessible to many types of users.

Currently, the application is extremely busy with many inconsistencies in the internal app design, external cross platform design and is full of redundant information. The application also lacks clear focus and hierarchy, and seems to be trying to add too much information and functionality into something that should be a simple and straightforward.

These problems make the application confusing for users, and stop them from being able to purchase tickets and view movie information - what would be the user's main goals - easily and quickly. To explore how best to address these problems, we developed two conceptual prototypes. These prototypes are intended to correct many of the errors in the app, and in particular, make it far less confusing overall to use. In prototype A, we focused on fixing the main issues within the current Cineplex app, while keeping many of the same interaction metaphors and styles. Prototype B, in contrast, is more of an exploration into new methods and models of interaction than a reaction to the existing symptom. After user testing, we found that we were reasonably successful in reducing user confusion and decreasing the time and clicks required to purchase tickets. However, there were still issues with our conceptual designs.

Prototype A had a major feature, a settings button, that was very difficult to find, and greatly slowed users down. Prototype B required more clicks to purchase tickets than prototype A, and didn't allow users to correct errors in theatre selection quickly. Overall, we decided to combine the two prototypes for our final design, using the less confusing Prototype B as the base. We used features from Prototype A to extend features and correct mistakes we'd make in Prototype B. Even though both prototypes still have some issues, it corrects many of the problems with the original Cineplex app, making our redesign, an overall success.

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### TABLE OF CONTENTS

#### Chapter 1: Introduction

- 5 Introduction
- 6 Motivation and purpose Problem statement and user goals Redesign Objectives
- 7 Users
  - Description of user base Persona
- 8 Context of Use, Scenario & Task
- 9 Heuristic Evaluation
- 10 User Studies
  - Goals of this user study & questions/hypotheses addressed Methods & Participants Materials & Procedures Results Discussion & Conclusions
- 12 Requirements Statement Functional Requirements Non-Functional Requirements

#### Chapter 2: Design

- 14 Prioritization Worksheet
- 15 Design Inspirations, Prior Work & Comparison to Other Existing Interfaces
- 18 Conceptual Design A
  - Overview & Description Design Hypotheses Interaction Paradigm & Interface Metaphors
- 20 Conceptual Design B
  - Overview & Description
  - Design Hypotheses
  - Interaction Paradigm & Interface Metaphors

- 22 Comparison of Conceptual Designs A & B
- 23 Reflection: Designing for Humans Chapter 3: Prototyping
- 25 Illustration of Task Prototype A
  - Prototype B
- 26 Reflection: Insights & Lessons Learned Insights from User Testing, Feedback & Discussion Insights from Prototyping Storyboard for Project Video

#### Chapter 4: Evaluation

- 31 Goals of this Evaluation Study Questions and Hypothesis Addressed by the Evaluation
- 32 Design Evaluation Methods
  - Participants Materials Instructions and Task Description Observation table
- 34 Experimental design & Procedure
- 35 Results

33

- Quantitative Data Qualitative Data
- 36 Discussion and Conclusions: Implications for Future Interaction Design

#### Appendix

- 38 Affinity Diagram
- 39 Prototype Sketches
- 40 Prototype Screens
- 41 External Links
- 42 List of changes

# Chapter 1

Content INTRODUCTION MOTIVATION & PURPOSE USERS CONTEXT OF USE, SCENARIO & TASK HEURISTIC EVALUATION USER STUDY



### **INTRO**

The Cineplex mobile app is an entertainment app which allows users to browse through information about current movies, movies coming and opening soon, events and theatres and purchase movie tickets. The app also allows users to read the Cineplex magazine to catch up on the latest entertainment news, access their Scene card and collect Scene points, and access Cineplex promos. It is for Blackberry smartphones and tablets, Android phones and tablets, as well as iPhones and iPads.

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Visit the app website at www.cineplex.com/apps.aspx



### MOTIVATION & PURPOSE

### PROBLEM STATEMENTS & USER GOALS

Currently, the Cineplex Mobile app is extremely busy with many inconsistencies in design and is full of redundant information. The app also lacks clear focus, and seems to be trying to add too much information and functionality into what should be a simple and straightforward app. These problems make the application confusing for users, and stop them from being able to purchase tickets, their main goal, easily and quickly.

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#### **REDESIGN OBJECTIVES**

Our re-design objectives are to make the app easy, fast and intuitive for users. The app's main barrier to this at the moment is a very confusing interface, which we want to fix. To do this, we will eliminate redundant and inconsistent elements from the interface, and improve design elements. In particular, we want to focus on getting rid of the visual clutter by showing information organized by relevancy in a given context, with completely irrelevant information removed. We also want to provide a clear focus and purpose for the app based on user requirements and desires, with a focus on what constitutes the core experience. These changes should make the application less confusing to users, and improve their experience with it.

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### **USERS**

#### **DESCRIPTION OF USER BASE**

The main core of users for the Cineplex app are college/university students and middle aged working class with some form of technology experience. These users would use the app at least once a week. The main goal of our users is typically to use the app to purchase tickets for a desired movie. Other goals include getting information about specific movies, such as genre and rating, or specific theatres, such as parking availability and accessibility.

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#### PERSONA

NAME: Mike Ng AGE: 34

OTHER INFO: Single father; 2 kids (age 3 & 6); works as an IT support at Telus;

BEHAVIOR PATTERNS: He has his kids on the weekends and frequently takes them out to see movies. His background also makes him quite familiar with technology. He owns an iPhone and iPad, and uses the iPhone primarily to use the app.

GOALS & MOTIVATIONS: In order to make good use of his time, his goal is to be able to look up information about movies ratings which are suitable for his kids, find the nearest available theatre and to purchase tickets in advance.

EXPECTATIONS: While Mike and his kids have a few favourite theatres, he also wants to be able to take his kids to new places, and needs information about parking and accessibility because one of his kids uses a wheelchair.

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### CONTEXT OF USE, SCENARIO & TASK

Mike is at Metrotown with his kids when they decide that they want to go to a movie. He's heard about the movie Wreck-it-Ralph, which had just come out in theatres, but isn't sure if it's appropriate for his kids. Because they're at Metrotown and his kids are desperate to drag him into the Disney store, he wants to be able to buy the tickets as quickly and easily as possible. He opens the app on his iPhone, and goes to the Movies tab to search for Wreck-it-Ralph. The movie comes up, and he clicks on it. This takes him to the movie's page. He views the rating and synopsis, and determines that it is appropriate for his kids. Now he wants to purchase tickets for it. Scrolling down to showtimes of the movie, he sees that Metrotown appears as the nearest theatre, and displays a list of showtimes. As he is just going with his kids, trying to organize an event with his friends isn't important to him. Instead, he just purchases tickets for the next showing and closes the app, his goal achieved. Now he just has to entertain his kids until they go see the movie.

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### **HEURISTIC EVALUATION**

<b>HEURISTIC VIOLATED</b> Which heuristic? How is it violated?	<b>LOCATION</b> Where is it?	SEVERITY low/med/high?	<b>RECOMMENDATIONS</b> How specifically would/could it be improved?
Aesthetic & Minimalistic Design -Searching on media page is painful. Looks like "grandma's Internet Explorer" with all the toolbars and ads -Over half the settings are about social networking i.e. "Like/share" buttons everywhere	Throughout the app	High	-Streamline design i.e. minimize distracting elements -More white space so the user is not overwhelmed by the scope of info -Group similar topics/headings -Remove social media icons which are unnecessary, main focus is movies and tickets
<b>Consistency</b> -Buttons don't seem to do the same things i.e. More info button expands info -Trailer button loads full screen trailer -Photo button opens new page	Throughout the app	High	-Make buttons that look similar perform the same tasks
Mapping -Scene News shows up in Scene points -Home button and advertisements are placed in random locations on the app	In Scene points tab Throughout the app	Medium High	-Move to entertainment section -Place home button and advertisements in a fix location in each tab
Affordances -Facebook and Twitter buttons are too small to click	Throughout the app	High	-Make them bigger so they can easily be clicked
<b>Efficiency</b> -Some options under more are external links	Throughout the app	High	-Don't make any parts of the app open up in a web browser

### **USER STUDIES**

#### GOALS OF THIS USER STUDY & QUESTIONS/HYPOTHESES ADDRESSED

The user study is intended to help us get a better insight into what parts of the app pose the biggest problems for users, so we can focus efforts on fixing those in the redesign. It will also help us understand what features users find the most important within the app, allowing us to define the app's core experience and functionality with users' desires and needs in mind. It will also enable us to design for the user's actual wants and needs, rather than what we perceive those wants and needs to be. If assumptions about the app's problems don't match up with what users actually experience, the redesign won't be very effective, and the user study will allow us to correct assumptions and avoid this. We want to be able to evaluate the hypothesis of what we find to be confusing in the interface is indeed confusing for the user and impedes their ability to achieve their goals. We would also like to determine what features users think are the most important, and which ones they find irrelevant or distracting. We asked users for:

- Name // Age // Martial Status // Number of Kids
- Mobile Devices (iPhone/iPod, iPad, Android Phone, Android Tablet, None, Other)
- Length of time with any smartphone or tablet
- Have you ever bought tickets online? Yes/No
- If bought tickets online, where were they bought from?
- Familiarity with Cineplex app on a 1-10 scale (1: never used 10: always)

#### As well as, asking them to complete 3 tasks, recording times for each:

Task 1: Steps for buying a ticket for a family friendly movie Task 2: Find Nearest theatre, buy 3 tickets for tomorrow Task 3: Find Synopsis for a movie

#### **METHODS & PARTICIPANTS**

#### USER 1

AGE: 57 // GENDER: Female BACKGROUND: Mother of 2, does not use smartphones REASON FOR SELECTION: Represents people who are not well associated with technology.

#### USER 2

AGE: 24 // GENDER: Male BACKGROUND: Uses technology often, has taught others to use smartphones REASON FOR SELECTION: This is a typical user of smartphones. Does not use it for everything but has experience with it.

#### USER 3

AGE: 20 // GENDER: Male

BACKGROUND: Uses iPhone all the time, bought iPhone 5 when it came out

REASON FOR SELECTION: This user is immersed in his iPhone and uses it frequently. He has a over 1GB of data and uses most of it each month.

#### USER 3

AGE: 19 // GENDER: Female BACKGROUND: Has used BlackBerry for 2 years and never owed a fully touch device. REASON FOR SELECTION: Fits the young technologically experienced demographic but has not had much interaction with fully touch devices.

### **USER STUDIES**

#### **MATERIALS & PROCEDURES**

The study was conducted using a tablet version of the app (iPad and Android), digital and paper based charts to record our findings, and a stopwatch to time how long it took our users to perform each and all tasks. The procedure of the study began with a brief explanation to the user about what the app is about and what the main goal we wanted to accomplish was. After that, we gave users a chance to ask questions about things that were unclear. Once all that was straightened out, we conducted the user tests using an instruction sheet telling the user what to do and each task to complete. After conducting the test, we asked them some follow up questions. Some of the questions we asked them included what they found most frustrating, anything they liked about it, how useful was the app, and any other functions they want the app to do.

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#### RESULTS

This user study found that information was sometimes misleading or not clearly available. Looking at the nearest theater function in the app it would appear that the feature does not use GPS to pinpoint your location, which it implies. The feature uses GPS to detect what city you are in and shows you theaters in and around that city. While searching for the nearest theater most users choose the incorrect theater. The other main piece of information found in this study was that when users had to go from the app to the mobile site, they were slowed down drastically. The interface of the site is completely different and the buttons appear to be designed for a mouse not a finger. Users slowed down at this portion of the process to make sure they clicked the right buttons. There was also a lot of text on these web pages, most of which was not useful to the users.

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#### **DISCUSSIONS & CONCLUSIONS**

The user study helped give us more detailed information about issues we had already predicted with the app, as well as introduce new ones. For example, we expected forcing the user to go to a mobile site for certain functions to present several problems, and the users did indeed struggle with this. As a result, we want to eliminate as much as possible places where the user has to leave the app to go to some other site or application. The study also confirmed ideas that the availability of online ticket purchasing for individual theatres was not very visible, and should be changed. Users also took issue with the cover flow on the front page, letting us know what the users expected and how we could make that feature work. We didn't anticipate the issues with the accuracy of the nearest theatre functionality, but now we can change the feature to make it work in the way that users would typically expect. Users also struggled with noticing they had to change the date before they selected a showtime when purchasing tickets. We can make this need more visible, or change the way this function works so changing the date like that isn't required at all, which might help reduce user mistakes.

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### **REQUIREMENTS STATEMENT**

#### FUNCTIONAL REQUIREMENTS

From our own ideas about the purpose of the application and results from our user testing, we have determined that, more than anything else, the app must allow users to purchase tickets to movies. To do this, it must also display vital movie information such as showtimes for movies at theatres. To make the decision to purchase or not, the user needs to be able to access information about the movie, such as synopsis, rating and media such as the movie's trailer. To determine which theatre to go to, the app needs to provide the user with information such as location of theatres, nearest theatre, and parking availability and accessibility for theatres. After purchasing the ticket, the user should be able to use the app to present their purchased ticket the theatre to enter. The app should also allow the user to access their Scene card and easily scan it.

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#### NON-FUNCTIONAL REQUIREMENTS

Our users are going to be using this app on the go so they need the system to be fast and easy to use. To support this, the system cannot be confusing for the user, and all of its functions should be easy to locate and understand. Having a more simple interface will help make the app less confusing, and it will also allow the user to locate the important functions much more quickly and easily. Making the app more internally consistent would also decrease confusion for users. Currently, the GPS functionality for the app does not work as the user would expect; rather than basing its nearby theatres off of your current position, it just presents the user with a list of theatres in their city. This issue could be extremely confusing to users, and make them choose the wrong theatre for them. As a result, the app must be much more accurate. Finally, when using the current app, the user is constantly bombarded with ads for Cineplex and Cineplex's social media. The app should feel more like a tool for the user and less like a giant Cineplex advertisement.

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Cineplex Mobile App Final Report: Chapter 1

# Chapter 2

Content PRIORITIZATION WORKSHEET DESIGN INSPIRATION CONCEPTUAL DESIGN A CONCEPTUAL DESIGN B COMPARISION OF DESIGN A & B REFLECTION: DESIGNING FOR HUMANS

### **PRIORITIZATION WORKSHEET**

ITEM	DESCRIPTION	BUSINESS IMPORTANCE	USER IMPORTANCE	TECHNICAL FEASIBILITY	RESOURCE AVAILABLE
Purchase Tickets	Users are able to purchase tickets to a movie and theatre of their choice.	HIGH	HIGH	INTERMEDIATE	INTERMEDIATE
Social Media	Users are able to like and share information about Cineplex as well as the movies and theatres they are going to.	HIGH	LOW	HIGH	HIGH
Locate Nearest Theatre	Users are able to find the theatre nearest to them.	INTERMEDIATE	HIGH	INTERMEDIATE	HIGH
Access Purchased Tickets	Users are able to redeem tickets purchased on the app for the theatre they purchased in order to gain entry into the movie.	HIGH	HIGH	HIGH	HIGH
Access Scene Card	Users are able to have their Scene card scanned when purchasing tickets or food from concession.	INTERMEDIATE	HIGH	HIGH	HIGH
Cineplex News and Magazine	Users are able to read about entertainment news and the Cineplex magazine.	HIGH	LOW	HIGH	HIGH
Browse Movies	Users are able to browse through movies in various categories.	INTERMEDIATE	HIGH	HIGH	HIGH
Browse Theatres	Users are able to browse various theatres to determine location and movies playing there.	INTERMEDIATE	INTERMEDIATE	HIGH	HIGH

### DESIGN INSPIRATIONS, PRIOR WORK & COMPARISION TO OTHER EXISTING INTERFACES



#### NETFLIX

Good: Netflix uses a highly visual cover flow concept which makes it possible multiple movies all at once and doesn't require as much scrolling to get to relevant movies. The aesthetics allows us to simplify and remove the drop downs for different movie types. Relevant information is displayed prominently, with favourite/ suggested or current shows in progress displayed at the top of the screen. The interaction metaphor of Netflix cover flow is having a shelf of movies or vinyls the user is flipping through. The structure of the coverflow mirrors this process, which allows users to easily understand how the feature works.

Bad: The horizontal scrolling required to control the cover flow might not be intuitive for users. Also, the movie's title is not shown in text, so if it isn't easily visible on the poster, users will have a harder time finding that information.

### DESIGN INSPIRATIONS, PRIOR WORK & COMPARISION TO OTHER EXISTING INTERFACES



#### 8 TRACKS

Good: 8tracks uses full bleed posters accompanied by attractive typography on top showing important information about the song the user is currently viewing. It gives the user relevant information with the option to see more rather than immediately presenting all of the information and hoping some is relevant. This makes it a great system for quickly and easily browsing music. Bad: To access additional information about that track, users need to either swipe from the side or use a button. This might not be intuitive to users, although it is employed in other systems, such as the Facebook app.

16

### DESIGN INSPIRATIONS, PRIOR WORK & COMPARISION TO OTHER EXISTING INTERFACES



#### **ITUNES COVER FLOW**

Good: iTunes allows users to navigate their music library by scrolling through a display of all of their albums using the album art. This operates in much the same way as the Netflix cover flow, where users scroll horizontally through the albums, also drawing from the same metaphor of flipping through a stack of, in this case, CDs. The cover flow has great aesthetics, as it uses large images. Bad: While the information displayed is attractive, not much information can be displayed at a time. To get to albums at the end of the list via the cover flow, you have no choice but to scroll all the way there. There's no easy way to jump between places in the collection, or even view the collection as a whole.

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17

### CONCEPTUAL DESIGN A



#### **OVERVIEW & DESCRIPTION**

In this design, we focused on fixing the main issues within the current Cineplex app, while keeping many of the same interaction metaphors and styles. This was more of a reaction to the existing system than an exploration into new methods and models of interaction, which we developed further in Conceptual Design B. The largest problem with the existing app was the confusion it caused in users with its highly cluttered interface. We tried to simplify and consolidate information as much as possible and minimize the number of clicks required to purchase tickets, which benefits both users (easier to achieve their goals) and businesses (users are more likely to complete their purchase if it is easy to do so). We also removed unnecessary, confusing elements and features while minimizing others such as reducing the number of links to ads and social media. Finally, we decided to conceptually tie the system more closely to the idea of a theatre itself, and decided to explore a theatre ticket booth display as an interaction metaphor.

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### CONCEPTUAL DESIGN A

#### **DESIGN HYPOTHESIS**

1. Consolidating information logically/into fewer pages will make it easier for users to find what they're looking for.

A major problem in the old app was how difficult it was to find important features, and their illogical grouping was a major contributor to this. By fixing this issue, we will make these important features much easier to find, and reduce the app's visual clutter.

2. Having consistent tabs will make the information in the tabs more accessible to users.

Purchased tickets and the Scene card are important features of the app. Having them available on every screen allows users to access and use them more easily.

3. Removing features that don't add user value will help reduce confusion and clutter.

With less being presented to them, it'll be easier for users to find the important features.

4. Using theatre imagery in the app will help conceptually link it to the actual theatre.

This gives the app a little more character, and differentiates it from similar apps as well as adding to the joy of use. It could also

be tied into the overall branding of Cineplex to create a consistent experience in the real world and on the app.

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### INTERACTION PARADIGM & INTERFACE METAPHORS

The metaphor used for Design A is a display board of movie times shown at a ticket booth. Movies goers will recognize this and feel comfortable using it as they are not just scrolling through menus and clicking on images. This makes it feel like you are buying a ticket at the theatre and not through an app or self checkout. The experience of going to a theatre, looking at the show times and purchasing a ticket is mirrored in Design A with the ticket booth metaphor. The experience and familiarity provided by the ticket booth metaphor makes buying a ticket easy and enjoyable. The interaction paradigm in Design A is not having to scroll within the app to find needed information. With our compact design of presenting movies, we are able to display a lot more movies onto a single screen. Even if there are too many movies for one screen, they are laid out so that the ones most likely to be picked are at the top. This minimizes the amount of scrolling required to purchase tickets.

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### CONCEPTUAL DESIGN B



#### **OVERVIEW & DESCRIPTION**

Conceptual Design B is less of a reaction to the problems with the original app and more of an exploration in facilitating interaction with the original problems in mind. Our exploration was mainly focused on using more visual navigation. This design allows users to browse through theatres and movie availability on a map, with an option to switch to a list mode if desired. We also explored a more visual approach to display different categories of movies as

in the original system, users had to select their genre of movie using a drop down menu. This design enables users to see several categories at a time, allowing for easier and more visual browsing. With large and more frequent images, the overall aesthetics compared to the original system is more appealing to users; however, we did not explore the idea of theatre imagery as we did in Conceptual Design A.

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### CONCEPTUAL DESIGN B

#### **DESIGN HYPOTHESIS**

1. More visual navigation would allow users to access relevant information and features faster, while also increasing the joy of use. We used this in displaying different movie categories, as well as a more map focused display of theatres.

We felt that users should be able to find what they need right away without having to dig through the app to get that information.

2. Being able to see which theatres are playing which movies on a map allows users to select an appropriate theatre more quickly, compared to a list.

We felt that having theatres shown visually on a map allows users to figure out location without having to search it up in a separate app or browser; therefore keeping the user inside the Cineplex app.

3. Grouping ticket and Scene information would be more convenient for users as both of these features can be used at the same time.

The purchased tickets information allows users to redeem their tickets at the theatre and gain entrance to the movie, while the Scene card can be used at concession to accumulate points. We felt strongly about relating the use of both of these features would allow us to place them together in a way that made sense to users.

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### INTERACTION PARADIGM & INTERFACE METAPHORS

The cover flow represents a shelf of DVDs or vinyls. When you are picking a movie from the shelf you flip through all the DVDs with your fingers. This action is mirrored in the cover flow concept. The user is able to flip through all cover art for all the movies and choose which movie to watch. The paradigm followed in Design B is employing very visual navigation, and giving the user information with images rather than words. The cover flow relies on pictures conveying the information about which movie you are seeing.

Word count: 93 of [75-200 words allowed]

### COMPARISON OF CONCEPTS A & B

ASPECT TO COMPARE	CONCEPT A	CONCEPT B
Navigation Method	Navigation is accomplished primarily through text lists accompanied by either a small image or no image for each element.	Navigation is much more visually oriented. Different types of movies are separated into different "cover flows" all on the same page allowing users to quickly see many movies. Choosing theatres is also more visually focused through the use of a map with the option of a list mode if desired.
Aesthetics	The use of aesthetics is to implement the theatre metaphor. The page for a theatre, which also acts as the landing page is styled to look like a ticket booth display.	This design is more visually oriented with large images and image based navigation however, rest of the aesthetics are based from the original design.
Display of individual movies	The movie poster is displayed in full, with a small amount of critical info displayed in text on top. Another click is required to purchase tickets.	All of the information for a movie is onto a single page with a purchase tickets button incorporated.
Landing Page	Depending on the user's settings, either a favourite theatre or the nearest theatre is used as the landing page.	Movies page is the default
Tickets and Scene Card	Tickets and Scene Card are placed into two separate tabs, but are beside one another.	Tickets and Scene Card are grouped into one tab called My Account, which also includes the user's settings.

### **REFLECTION: DESIGING FOR HUMANS**

Both of our conceptual designs focused on the following ideas of human cognition and perception.

1) Miller's Law: In general, working memory is able to process 7 chunks of information at a time, plus or minus 2. The home page in the original design was filled with tons of information, violating this heuristic and making the user feel overwhelmed. Not only did it contain too much information, it also didn't group the information it displayed effectively, increasing difficulty in chunking the information into manageable bits. Our conceptual designs focus on simplifying the interface to avoid this information overload. To do this, we removed unnecessary information and tried to more logically and effectively group the information that we displayed. 2) Effective presentation of information allows users to offload cognition and share the cognitive load with the system. It allows users to employ that information as a part of their thinking process. In Conceptual Design B, we tried to leverage this with our use of maps. We hypothesized that using a map of theatres showing a given movie would be an effective way to present movie availability information to the user. Having this information presented allows them to offload the process of figuring out the best theatre. Rather than trying to remember the closest theatre, or the one easiest for them to access via transit, they can use the map they are presented with to answer these questions.

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# Chapter 3

Content ILLUSTRATION OF TASK REFLECTIONS: INSIGHTS & LESSONS LEARNED

### **CONCEPTUAL DESIGN A**







**Oneplex Odeon Strowberry** Cinemas ua 🖯 🗸 User selects theater and

presses BUY button

3 ood Doy to Die Hard

User selcts time and number of tickets and enters payment information

Non-Third

mber of Tickets

cyment information

wa 🕘 Madestart

-11

Good Day to Die Hard Cineplex Odeon Strowberry Hill Continues 1710 And Ave, Surry IC, 1019 JAL áller 🖬 🚩 

User is returned to previous page and pulls out the TICKETS tab.

User can now scan tickets at the theatre

User pulls out SCENE tab at concession

óUka 🕃 🎦

Cineplex Odeon Strawberry Hill

Cinemas Mid Janei Ana, Sanay SC, VW 2011

# 🖬 🖸 Uka 🐱 🗹 OUR POINTS .ki 🖬 🚩

Good Day to Die Hard

Cheplex Odeon Strayberry Hi

User can now check scene points and get discounts at concession

#### **ILLUSTRATION OF TASK**

Task: Purchase a ticket for a specific movie (Identity Theft) playing between 5:30-9:30 on Tuesday

- 1. Search for tickets to buy between times and date
- 2. Buy tickets for the nearest theatre
- 3. Show that tickets have been purchased on side tab

25

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### **CONCEPTUAL DESIGN B**



Users are able to browse movies via the 'flow' or 'list methods, with 'list' providing more detail and early buy options.

Once movie of choice has been selected, users will arrive at the movie page (can be skipped with early buy option in 'list" view). Pressing "buy" will bring users to the purchasing page.



Users are able to select the date and showtimes for the movie.

Users select the desired ticket(s) and a confirmation and notification will alert users to new purchased tickets.

Purchased tickets will be readily available under the "My Account" tab, along with any Scene card information.

Task: Purchase a ticket for a specific movie (Identity Theft) playing between 5:30-9:30 on Tuesday

- 1. Search for tickets to buy between times and date
- 2. Buy tickets for the nearest theatre
- 3. Show that tickets have been purchased on side tab

# RELFECTIONS: INSIGHTS & LESSONS LEARNED

#### INSIGHTS FROM USER TESTING, FEEDBACK & DISCUSSION

#### Conceptual Design A

In this concept we wanted to use imagery based on the idea of a physical theatre to tie into our interaction metaphor. Originally we designed the Theatre landing page to look more like a traditional theatre ticker board with stylized text and no images. We received feedback from a user that this could be difficult to read, particularly on smaller screens. In response, we adjusted the page, making the text more legible and adding movie posters as images while still keeping the same physical theatre feel.

#### Conceptual Design B

We tried to use more visuals to guide interaction in this concept. However, we discovered that even within our team, certain members were more visually oriented than others. Some preferred the more visual system, while some found the text based lists of the original app more effective. To try and address this and accommodate users of varying levels of "visual orientation", we give users the option of switching to a simple list of all of the elements.

#### **INSIGHTS FROM PROTOTYPING**

Both prototypes were able to fulfill our goals of reducing clutter and removing redundant and unnecessary information. These goals were achieved by grouping similar items which perform the same tasks together such as social media and removing tabs which shift away from the focus of browsing movies and purchasing tickets such as magazine and entertainment news. As well as reducing clutter, we wanted to reduce user confusion when using the app. We removed more unnecessary information and features, and tried to more effectively group those that remained. Through our goals we were also able to reduce the number clicks it takes the user to perform any given task. From prototyping and iterative designs, we learned how to create a more efficient and user friendly interface and experience to meet the design goals we had set out for the application.

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Word count: 169 of [100-250 words allowed]

Cineplex Mobile App Final Report: Chapter

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### **VIDEO STORYBOARD**



Cineplex Mobile App Final Report: Chapter 3

### VIDEO STORYBOARD



Watch the full video here: http://www.youtube.com/watch?v=x72IseA9bGA&feature=youtu.be

# Chapter 4

Content GOALS OF THIS USER STUDY DESIGN EVALUATION METHODS RESULTS DISCUSSION & CONCLUSION

### GOALS OF THIS EVALUATION STUDY

The goal of this user study was to find out if our conceptual designs addressed the issues that were brought up in the original app, primarily the issues of visual clutter and confusion. We wanted to evaluate our designs, and see if we achieved our goal of creating a simpler, more intuitive and easier interface for users. In our

#### QUESTIONS & HYPOTHESIS ADDRESSED BY THE EVALUATION

Question: For people who have never used the app before, are our prototypes quick and easy to learn? Which conceptual design is the fastest/easiest to learn?

Hypothesis: We believe that both prototypes are quick and easy to learn; however, prototype B would probably have an advantage over prototype A due to the fact we simplified it further.

Question: Are our designs less confusing than the original app? Which prototype is the least confusing?

Hypothesis: We believe that our designs would be less confusing than the original app as one of our main goals is to reduce clutter and confusion. Prototype B would probably be less confusing due to the fact we simplified it further from prototype A.

Question: Did the visually oriented navigation of prototype B help users find their desired movies more quickly?

Hypothesis: We believe that users are more quickly able to recognize

conceptual designs, we wanted to test if users were less prone to errors and if the time and effort required to purchase movie tickets has improved (i.e. less number of clicks and faster times).

Word count: 94 of [50-150 words allowed]

movies by their posters than just by their names, making large images of posters an ideal way to display movie information.

Question: Which did users prefer aesthetically, the theming of prototype A, or the simplicity of prototype B?

Hypothesis: We believe that this would depend on the user's opinion.

Question: Conceptual design B takes more steps to purchase a ticket; did this pacing of information help users or hinder them? Are the additional screens making it easier for users to purchase tickets correctly or does it just slow them down?

Hypothesis: We believe that even though we are increasing the number of clicks not all the information is being presented at once, avoiding information overload. This makes it more helpful and therefore, increases the efficiency of users correctly purchasing tickets.

Word count: 272 of [100-300 words allowed]

### **DESIGN EVALUATION METHODS**

#### PARTICIPANTS

USER	GENDER	AGE	BACKGROUND	REASON FOR SELECTION
1	Female	57	Mother of 2, does not use smartphones	Represents people who are not well associated with technology.
2	Male	24	Uses technology often, has taught others to use smartphones	This is a typical user of smartphones. Does not use it for everything but has experience with it.
3	Male	20	Uses iPhone all the time, bought iPhone 5 when it came out	This user is immersed in his iPhone and uses it frequently. He has a over 1GB of data and uses most of it each month.
4	Female	19	Has used BlackBerry for 2 years and never owed a fully touch device.	Fits the young technologically experienced demographic but has not had much interaction with touch devices.

### DESIGN EVALUATION METHODS

#### MATERIALS

- Stopwatch
- Chart to record every move users made
- Cineplex Mobile App
- Web based prototypes

#### **OBSERVATION TABLE**

QUESTIONS	USER 1	USER 2	USER 3	USER 4
Which Prototype was given to test first?				
How long did it take to complete task 1?				
Were there any errors made in task 1?				
How long did it take to complete task 2?				
Were there any errors made in task 2?				
How long did it take to complete task 3?				
Were there any errors made in task 3?				

#### **INSTRUCTION & TASK DESCRIPTION**

We gave users 3 different tasks to complete:

Task 1: You're going to see A Good Day to Die Hard this weekend with your BFF. It's playing in your favourite theatre, Strawberry Hills. Buy tickets there. But wait! Your friend can't make it to Strawberry Hills, and wants to watch it at the nearest theatre to you, SilverCity. Buy two tickets for tonight at 7:30.

Task 2: You're taking your kids to Strawberry Hills to see a movie tomorrow. However, you don't know what you want to watch! Choose a movie offered at Strawberry Hills that would be good for your kids. Buy 3 tickets for the movie at 5:30 tomorrow.

Task 3: Your friend from out of town is visiting next weekend! As he's a huge movie buff, you know he'll want to go see a movie while he's there, but he's already seen everything out right now! You're going to need to find a movie that's opening next week, and buy tickets for the two of you.

### DESIGN EVALUATION METHODS

#### **EXPERIMENTAL DESIGN & PROCEDURES**

The user test was done with an HTML linked web page used on a touchscreen device. The interface was presented as an image, with image maps added to allow users to click "buttons" on the interface and be presented with the screen that button would open. New screens were loaded using AJAX, meaning that we were able to change the image without refreshing the entire page. This was done both to make the interface faster, and also to more closely simulate what interacting with the actual interface feels like. We provided instructions for each task on the side of the webpage where the user can refer to it anytime during the tasks. Each user used the same macbook and was told to complete the tasks written on the side of the page. The only time the tester talked was to tell the user to change theater during task 1 and if the user became confused. Each task was separately timed and recorded. After the testing, each user was interviewed with the questionnaire in the Appendix.

	USER 1	USER 2	USER 3	USER 4
LOCATION	User's house	Tester's house	Tester's house	Tester's house
DATE (2013)	March 31st	April 2nd	April 2nd	April 3rd

### RESULTS

#### QUANTITATIVE DATA



#### QUALITATIVE DATA

#### **PROTOTYPE A**

• Initially prototype A was regarded as more confusing based off trying to find the settings tab. Although after the settings tab was found users stated that they would easily be able to find it again and it would be useful.

• While selecting a theater for a movie some users were confused that a theater had been chosen for them by default.

• Users enjoyed the minimal amount of steps it took to complete tasks with this prototype.

#### **PROTOTYPE B**

- Two users said that the coming soon tab was very easy to find in task 3
- Even though task 1 took longer in prototype B than in prototype A, users went smoothly and calmly through the interface of prototype B.
- All users enjoyed having the search categories at the top of the page.

• One user said he wanted to be able to see more movies in the coverflow screen instead of just one with a sliver of two other movies.

### DISCUSSION & CONCLUSION: IMPLICATIONS FOR FUTURE INTERACTION DESIGN

Overall, our results indicated that our designs were relatively successful in achieving our goals of reducing user confusion and time required to complete the task. In task 1 on average, users using prototype A were able to purchase tickets in about 20 seconds versus 1 minute with the original app. Users also reported being less confused using prototypes A and B versus the original app, with the exception of the settings button in prototype A.

However, we also found there were several issues with each prototype. In prototype A, the settings button was hard to find. As it was only way to sort movies, users had difficulty completing the task due to this feature. After users found the feature, several stated that it would be easy to use when using the app subsequent times. In contrast, users were able to complete the task quickly with prototype B because they found the buttons used to sort the movies, such as the genres tab, highly visible. However, with prototype B it's difficult to switch theatres at the last minute. While this may not be of extreme importance to users, it does increase the time required to complete the task, and increases the difficulty to recovering from error, which we would rather avoid. Overall, we found Prototype B to be less confusing to users, while slightly slower. Because of this, our suggested final version of the system would be a hybrid implementing the best features of both, using prototype B as a base. We would keep the aesthetics and main interaction metaphors of prototype B, such as the cover flow. We would extend the cover flow metaphor to also allow users to navigate movies by theatre. This cover flow would operate in much the same way as the Genres cover flows; vertically, you would be presented with several cover flows representing the movies in various theatres. The theatres would be organized by favourites and proximity. This would allow users to search more easily for a movie in a particular theatre.

One of the reasons that Prototype B was slower than Prototype A was that it took longer to correct errors in theatre selection. As selection theatre, showtime and number and type of tickets were all divided into separate screens, users had to backtrack further, increasing time and clicks required to complete the task. In our final design, we would combine these screens, or at least just theatre and showtime selection, into a single screen to help reduce these factors.

# Appendix

Content

AFFINITY DIAGRAMS PROTOTYPE SKETCHES PROTOTYPE A SCREENS PROTOTYPE B SCREENS EXTERNAL LINKS LIST OF CHANGES

### APPENDIX: AFFINITY DIAGRAMS





### **APPENDIX: PROTOTYPE SKETCHES**

#### **PROTOTYPE A + EARLY SKETCHES (POST-IT SCREENS)**



#### **PROTOTYPE B**



BACK MOVIE ATTLE	Theatres [4]
Theatre Location Shaw Tickets Rinchised!	FAMURITES (DEP)

### **APPENDIX: PROTOTYPE A SCREENS**

#### INITIAL TICKER IDEA + LATER SCREENS

<	CINEPLEX ODEON STRAWBER HILL CINEPLEX 12161-72ND AVE, SURREY BC, V3W 20	2RY > 11
IJ	A 6000 DAY TO DIE HARD 12:30, 2:55, 5:20, 7:55, 10:35	148
日 円・ フ	DEAD MAN DOWN 2:40, 5:20, 8:00, 10:40	148
M	ESCAPE FROM PLANET EA 12:30, 2:45, 5:00, 7:30	G
TICH	I. ME AUR MAIN (HINDI W 12:30, 3:05, 5:45, 8:25	PG
(ETS	IDENTITY THIEF 2:35. 5:15. 8:05. 10:40	148
	JACK THE GIANT SLAVER 2:15, 5:00, 7:45, 10:30	PG
	KAI PO CHE (HINDI W/E 1:00	PG
30	LOVE STORY OF SINGH U 1:15.5:05.9:00	PG
UTP AUX	0Z: THE GREAT AND POWE 12:35, 1:30, 3:35, 4:35, 7:00, 7:40	PG
	SAFE HAVEN	PG
5	<u>→</u>	



### APPENDIX: PROTOTYPE B SCREENS

#### MY ACCOUNT, MOVIES & MOVIE DETAIL SCREENS



### APPENDIX: PROTOTYPE B SCREENS

#### TOP NAVIGATION VARIATIONS: SWIPE SCROLLING (TOP), TAP (BOTTOM)



### **APPENDIX: EXTERNAL LINKS**

#### **VIDEO STORYBOARD:**

https://www.dropbox.com/sh/yw9pupeoauu6gz9/f6NoCEZmTu

#### **PROJECT VIDEO:**

http://www.youtube.com/watch?v=x72IseA9bGA&feature=youtu.be

#### WEB BASED USER TESTS:

http://www.sfu.ca/~cdegit/iat201/

#### **TEST FORM:**

https://docs.google.com/forms/d/11EFJfwplY\_5gXV6qsWGqDfnbIbtkdT6GgT3b9yazQ1U/viewform

#### **QUESTIONNAIRE:**

https://docs.google.com/forms/d/1Wy33wr8h8zglmM4UQV0plhmvrZzDm26FvxCWnRThigg/viewform

### **APPENDIX: LIST OF CHANGES**

#### Chapter 1:

User Studies GOALS OF THIS USER STUDY & QUESTIONS/HYPOTHESES ADDRESSED • added in questions asked from first user test (p.10)

#### Chapter 2:

Design DESIGN INSPIRATIONS, PRIOR WORK & COMPARISION TO OTHER EXISTING INTERFACES

• added images of mentioned systems (p.15-17)

Reflection: Insights & Lessons Learned INSIGHTS FROM PROTOTYPING

• added what we learned from prototyping (p.27)

#### STORYBOARD FOR PROJECT VIDEO

• added video storyboard (p.28-29)