The Scene- Interactive Video Scene Controller

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The Scene- Interactive Video Scene Controller
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Abstract

In modern society, people spend much time watching videos to meet their emotional and social needs. Movies and TV shows increasingly contain violence and sexuality to catch the eye. In addition to this trend, the current age-based rating becomes more and more lenient than the one in the past. As a result, the content rating system does not provide a clear standard about the level of graphic intensity anymore. This situation prevents a particular group of viewers from fully enjoying the video contents: parents and highly sensitive people. Whenever these two groups watch movies or live TV, they need to be careful about undesirable videos or scenes to stay safe. The Scene is an interactive video scene controller and informational community for those who feel uncomfortable about specific scenes. It provides clear standards on rating issues by using categorized and visualized symbols. Besides, the viewers can skip or hide unpleasant scenes with filters function in real-time or in advance. The Scene also functions as an informational community where the user can get useful information and share their thoughts about the video experience. This application is intended to protect those who are vulnerable to aggressive and suggestive videos and give a right not to expose unwanted images and sounds. For these users' better experience, it can also be a proposal to the video streaming providers.

Keywords

Movie Violence, Content Rating System, TV Parental Guides, Film Ratings, Video Streaming
Critical Analysis and Summary

Problem Statement
The movie or TV is an essential medium for modern people to satisfy emotional and social needs. They relieve stress, experience a new world and keep up with trends by watching videos (Thinkbox 2018). Therefore, people spend a lot of time watching movies or TV. According to the first-quarter 2018 Nielsen Total Audience Report, US adults now spend nearly 6 hours per day watching the video (Nielsen 2018). Moviemakers create more aggressive and suggestive scenes these days than ones in the past to catch the eye. Over the decade, there has been a considerable growth of violence, sex and profanity in movies (Harvard School of Public Health 2004).

There are two types of content rating systems in the US. One is the Motion Picture Association film rating system and the other is TV Parental Guidelines. Both of them simply classify the type of video into age. However, today’s PG-13 movies contain more violence and sexuality than the one in the past and this is coming close to the R-rated movie a decade ago (Waxman 2004). This means as the current system is becoming more and more lenient, there is no practical way for the viewer to avoid uncomfortable scenes in advance. Two groups of people, in particular, can feel uncomfortable with this trend: parents and highly sensitive people. For those people, problems can happen anywhere, such as at the theater or home, whenever they watch a movie or live TV. However, with the rising popularity of video streaming services (Alexander 2020), people can control where and when to watch the movie and TV. Applying the current available technology to streaming services can help the target audience find a way to build a personal viewing experience to effectively avoid unwanted scenes.

Solution
The Scene is an interactive video scene controller and informational community for parents and highly sensitive people. This application allows them to effectively check the rating issues, control uncomfortable scenes, and share their opinions. There are three objectives to achieve for this application. To begin with, The Scene provides clear criteria for rating issues using categories and visualized symbols. In addition, the viewers can directly control uncomfortable scenes by applying filters during or before watching a video. Finally, The Scene helps the user get sufficient information and share their opinions about the rating issues with reviews and rating function. The insight into these three objectives came from the interview process. To get qualitative answers, four participants who can be prospective users interviewed their thoughts and behavior on undesirable scenes while watching movies or TV. Their thoughts and needs gave insight into an alternative content rating system which is categorized, informational and digital.

The Scene has visual and interactional approaches used to achieve these objectives. Categorized and symbolized rating issues can make up for the flaw of the age-based rating system. The MPAA film rating system and TV Parental Guide evaluate and classify the rating issues in consideration of language, sexuality, and violence (Motion
The application divided these criteria into details and added new categories by analyzing existing competitive products and interview answers. Finally, The Scene uses thirteen detailed categories: language, sexual contents, alcohol, drug, smoking, bloody, severe violence, mutilation, horror, suicide, child abuse, sexual abuse and photosensitive. These categorized issues were visualized with a simple icon and vivid orange color to effectively warn the problem and call to action.

Participants in the interview said they usually use physical ways such as closing or hiding their eyes when they encounter uncomfortable scenes. Filters are digitized solutions to block unpleasant images and sounds. Connected to subscribed streaming services, Filters can be applied in real-time and in advance. This function is influenced by the current technology of photo filters on the camera application, interactive movie and parental control monitoring app. There are five filters used in the application: Skip, Blur, Lower Brightness, Mute, Beep. While Blur and Lower Brightness control the visual aspect, Mute and Beep control sound aspect. Skip filter gives the user a choice not to watch unwanted scenes. Basically, the Lower brightness filter only appears on the filter controller in the photosensitive issue. The reason why the application provides minimal filter options is to prevent unnecessary interruption. There is also an error prevention function that helps users avoid selecting incompatible filters. For example, if the user taps the Skip button, the other buttons become disabled to prevent confusion.

The Scene functions as an informative community for users of similar concerns. Parents and highly sensitive people need a platform to get sufficient information on rating issues and share their opinion with each other. In the interview, all participants have used other sources like reviews or trailers rather than the rating system to get the right information about unwanted scenes. They thought that this process was time-consuming. The Scene offers overall ratings, emotional keywords and optional writing reviews for the movie and TV. Participation in the reviews is essential for the app to collect sufficient information and for the user to obtain helpful information. Therefore, minimal questionnaires were designed to increase user participation by using a click or swipe interaction.

Conclusion

The Scene creates a personal viewing environment for those who cannot enjoy videos that contain specific scenes for educational, mental, physical and empirical reasons. It is not only a tool to control unpleasant images and sounds but also an informational community that can get useful information and share their opinions with others. In the current trend, movies and TV shows contain many violent and suggestive sequences and the content rating becomes more lenient than the one in the past. The Scene contributes to protecting the users, from the children to highly sensitive people who are vulnerable to these kinds of video, and not experiencing undesirable images and sounds. Moreover, for the video streaming providers, The Scene can be a proposal for better service to give a quality experience to their subscribers.
Appendix A: References & Bibliography


As the current content rating system is becoming more and more lenient, there is no practical way for the viewer to avoid uncomfortable scenes in advance.
02 SOLUTION

Build a personal viewing experience that allows viewers to effectively check the rating issues, control uncomfortable scenes, and share their opinions.

Figure 2: Solution Illustration

03 OBJECTIVES

Clear Criteria
The project provides detailed categories of the rating issues that may cause anxiety in the video with visualized symbols.

Controllable Scenes
The users can easily control uncomfortable scenes by applying filters before or during watching a video.

Informative Community
Reviews and ratings help the user get sufficient information and share their opinion about the rating issues.

Figure 3: Objectives
01 BACKGROUND

1 People spend a lot of time watching movies and TV. According to the first-quarter 2018 Nielsen Total Audience Report, U.S. adults now spend nearly 6 hours per day watching the video (Nielsen 2018).

2 Movies and TV show have become graphic. Moviemakers create more aggressive and suggestive scenes these days to catch the eye. A study found a considerable growth of violence, sex and profanity in movies over the 11 years (Harvard School of Public Health 2004).

3 The content ratings are growing more lenient. Today’s PG-13 movies contain more violence and sexuality than the one in the past and this is coming near to the R-rated movie a decade ago (Waxman 2004).

02 THE CURRENT RATING SYSTEM

The current rating system doesn’t provide a clear standard of content to viewers.

There are two types of content rating system in the US: Motion Picture Association of America (MPAA) Film Rating System and TV Parental Guide. Both system simply classifies the type of video into age.

"Movies with the same rating can differ significantly in the amount and type of potentially objectional content. Age-based ratings alone do not provide good information about the depiction of violence, sex, profanity and other content (Waxman 2004)."
03 WHO SUFFERS FROM THIS TREND?

Based on the research, I figured out two groups of people feel uncomfortable with this current rating system: parents and highly sensitive people. These people can be prospective users of this project.

*Highly Sensitive Person (HSP) is someone who is easily overwhelmed by physical, mental, or emotional stimulus and responds to them acutely. They are approximately 15 to 20% of the population (from 2020).

Parents
- Parents who want to watch the movie peacefully with his children
- Parents who want to control children watching a movie without her knowing

Highly Sensitive People*
- The person who is terribly scared of the gory or horror scene
- The person who has a trauma of violence, abuse or accident
- The person who is highly sensitive to light and sound

03 INTERVIEW TAKEAWAYS

To get qualitative answers, four participants who could be prospective users had an interview. This process gave insight into how the user needed a new content rating system categorized, informational and digital.

Need to be categorized
Each interviewee has different scenes that they didn’t want to see or show their children. Considering they’re all adults, they need an alternative rating system that is not classified by age but categorized by content.

Need to be informational
All interviewees think the current rating system isn’t enough to get information to avoid scenes they feel uncomfortable about. They use other sources before they watch the movie and feel that this is time-consuming.

Need to be digital
When they watch uncomfortable scenes, they usually use physical ways such as closing or hiding their eyes. Currently, there are no faster ways than these basic actions to control uncomfortable scenes.
04 USER STORY

"As a father, I want to block inappropriate scenes in real-time so that I can watch videos peacefully with my daughter."  
"As a mother, I want to control videos my son watches at any time so that he can stay safe from inappropriate videos without my guide."  
"As a sensitive viewer, I want to know content issues in detail so that I can easily avoid uncomfortable videos."

03 COMPETITIVE ANALYSIS

Content Perspective
Common Sense Media details the rating issues from an educational perspective so that parents can properly guide their children.

1 Category and Level
Categorized rating issues and intensity level help parents clearly understand inappropriate content in the video.

2 Issue Detail
Common Sense Media describes the situation in which problems arise. It can help parents' decisions but this can be a spoiler to potential viewers.

3 Reviews
The review function helps parents make decisions by letting them know the opinions of other similar users.
Technical perspective
The current existing technology has helped predict the applicable technology that can solve the thesis's problems.

1. Interactive Movie
   The interactive movie lets the viewer control the video's flow and the video streaming service has the advantage of applying this function. With this function, the viewer can skip or control the particular scene.

2. Photo Filter
   By simply tapping the icon, the user can apply various effects to the photo or video in real-time. This function can be used to relieve graphic scenes.

3. Parental Control
   Parental Control app can monitor children's media activity and alert the connected parent's app. A video can also be monitored in real-time by connecting a streaming service and mobile device and controlled by the user.

Real-time Control
- The flow shows how the user controls uncomfortable scenes in real-time.
- This function gives users the flexibility to apply filters while watching videos.
- It is suitable for parents watching a video with their child together and highly sensitive people.
Before You Start

1. Set the rating issue preference to get accurate localization.
2. Connect streaming services to the app with login information.

Search the video you want to watch
- Use the search bar to find specific videos.

Check the information about the video
- View details like rating, duration, and genre.

Apply filters to the uncomfortable scenes
- Adjust settings according to personal preference.

Tell your experience or thoughts about the video
- Submit feedback and suggestions.

Video Playing

Homepage
- Access the main menu for various options.

About Video
- Information about the video's source or the scene included.

Video Playing
- Playback for selected scenes.

Timelines
- Navigation through different parts of the video.

Presettable Control

- The user can apply filters to the uncomfortable scene before watching the video.
- The one who wants to enjoy the video without interruption.
- Parents who want to control the video their children watch can use this function.
- The flow on the next page is an example of remote parental control.
Before You Start

1. Register your child’s profile in the app.
2. Tell the app the issues that you do not want to show your child.

Notify parents if necessary

Receive a notification

Your child is trying to watch a movie that contains 5 issues.

Check the information about the video

Play video with

Parental Filter

Provide information that allows parents to decide whether to show their child a video

Prove children from being exposed to inappropriate scenes

Report to parents how the app worked during the screening time

Video Playing

Apply filters to the uncomfortable scenes

Set filters

View summary of filtered issues

Summary

Summary of filtered issues

01 SKETCHES & EXPLORATION

Because the timeline screen is key to this project, I focused on designing a significant and creative interaction. There is no existing product I can get inspiration from so I sketched many ideas and digitally explored possible layout and style.
New inspiration

After several explorations, I wanted to approach the timeline screen with a completely different style. Inspired by various graphic works like posters, I studied how to apply their visually impressive and creative style to the screen.

Iteration Point

- Taking layout, colors, typography and symbols from posters.
- Various playback bar styles by exploring tools such as rulers and rulersets.
Contrast

I was satisfied with the layout but the background was too bright to focus on watching a video and the colors needed contrast more. In this step, I thought about how to make the screen stand out without disturbing the viewers.

Iteration Point

- Dark background.
- The color contrast between the safe scene and problem scene.
- Exploring various playback bars.
03 COLORS

- Inspiration
  Traffic lights and traffic signs have inspired the colors and style because they effectively tell people about safety and danger.

- Strong & Simple
  The scene uses minimal complement colors so that the issues stand out of the scenes and easy to understand.

04 SYMBOLS

Thirteen issue categories come from research on existing system products. The current rating system evaluates and classifies rating issues in consideration of language, sexuality, and violence. The scene divided them into details and added new categories inspired by various sources based on this system.

Final Issue Categories
Initial Exploration
Initially, there were seven filters in exploration: Skip, Blur(tall), Fleebe(partial), Lower Bright, mute and beep.

Final Categories
Filters are narrowed down to five options to prevent unnecessary disruption. “Skip,” “blur,” “mute” and “beep” are basic functions that always appear in the controller. “Lower brightness” filter appears when a scene has photosensitive issues.

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LOGO

- Concept
The collection of visually distinct scenes is the most crucial feature of this thesis. Inspired by the shape of the film, these scenes have been described as a collection of squares.

- Shape & Color
The main shape has been decided after paper exploration with the concept above. Using the color and patterns used in the app, the logo builds and expresses the entire project’s brand identity.
Overview
Timeline is the most crucial screen of this project and consists of three sections: header, playback bar and scene gallery.

1. Header
   The header shows the movie title and Cast icon. This hides upfront when the user starts to scroll down.

2. Playback Bar
3. Scene Gallery
4. Filter Controller

Playback Bar
The Playback bar is designed to allow users to conveniently control the video and check the time of the problem scene. The number of squares equals the number of whole scenes. The video on the right shows four functions of the Playback bar.

Features
- The current time and ending time
- Play/Pause button
- Dragable progress bar
- Issue marking
**Scene Gallery**
The Scene divides the entire video into several scenes. Each scene has a distinct color setting depending on its state to easily understand the app's system.

- The past scene: gray out
- The safe scene: photo
- The problem scene: orange with problem symbols
- The current problem scene: orange moving bar
- The current safe scene: cyan moving bar

**Real-time Control**
The Scene has five filters to control the uncomfortable scenes. While Blur and Lower Brightness control the video's visual aspect, Mute and Deep control the sound aspect.

**5 Filters**
- Skip: skip to the next scene
- Blur: blur out the problem partial or the entire scene.
- Mute: turn off the sound of the entire scene.
- Deep: replace the problem sound with deep sound.
- Lower Brightness: only appears on Photosensitive issue.

**Error Prevention**
- It helps users avoid selecting incompatible filters.
- For example, if the user taps the Skip button, the other buttons are disabled to prevent confusion.
**Presettable Control**

The user can control uncomfortable scenes before they play the video using the presettable control. This feature allows users to watch videos without interruption. The user can also use this feature as a remote parent control.

- **Remote Parental Control**
  - The parent registers their children’s profiles to the parental control setting.
  - The app sends a push notification whenever children approach inappropriate content.
  - The parent can apply a filter in advance and approve of children’s watching the video.

**Overview**

The Scene categorizes the various scene issues with intuitive symbols. When the user selects the issues that can make them feel uncomfortable, the app carefully recommends the videos based on their preference and similar users.
03 CONNECTION SETTING

Overview
The user can easily connect streaming services to the app using their login information.

04 HOMEPAGE

Overview
The homepage uses search-based interaction because when users open the app, they will want to search for the video they want to watch.

1. Type and Search
2. Scan and Search
   Users can go directly to the information page when they scan a movie or TV show poster
3. Connection State
Overview

The About page focuses on providing useful information about rating issues so that users can decide whether to watch the video or not.

1. Play the Video
   The user can play the video in two ways using the app.
   - Fixed
   - User can check for problems first and apply filters before watching the video. This feature can be used in remote parental control.
   - Variable
   Users can check for problems in real-time and apply filters. This feature gives users flexibility in making decisions.

2. Issue Details
   The video includes options to select important issues during the video.
   - Spoiler Covered
   - Spoiler Uncovered

3. Summary
   Questions were designed to increase user participation by using a click- or swipe-interaction.

4. Reviews
   Questions were designed to increase user participation by using a click- or swipe-interaction.

5. Final Design
   Final design of the About page overview.
1 Lack of inspiration source
Overall, it was hard to get inspiration directly from existing products because there was no right example of this topic. Therefore, I learned to get inspiration from other areas such as graphic works to develop them for digital product work.

2 Simplifying layout
For effective interaction, the timeline screen needs a playback bar, scene gallery and filters controller. To make it easier for users to understand the functions, each function needs to be rightly divided on the screen. For this process, I studied a lot of different layouts and interaction, and try to delete or merge less necessary functions.

3 Visualization of data
There are many informational components in a single Timeline screen and these had to stand out by the hierarchy of importance. Therefore, I had a chance to explore various icon styles, color contrasts and patterns in harmony.
The Scare provides an effective way for viewers to check and avoid uncomfortable scenes in a data-based and digitalized form. The Scare is also a good community to share the necessary information for those vulnerable to graphic images or sound. It can be an alternative way to enjoy a movie or TV show without anxiety in the current age-based rating system.

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Appendix C: Website Screen Capture