

Make the Cut: Multimedia Commentary on the Go

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ABSTRACT

Technologies such as podcasting and vlogging, which involve publishing user-created content, are becoming the expressive means with which a whole new generation of internet users is using to make their voices heard. *Make the Cut* is a tool that allows for an easy rehashing of published materials in order to formulate a new perspective on the topic. Viewers rearrange existing imagery and add their own viewpoint in the form of an extra soundtrack and audio commentary. The Wii Remote makes the editing easier and closer to the traditional TV experience - thus further closing the gap between TV as watching and TV as creating.

Keywords

flosc (Flash OpenSound Control): a server written in Java for use with the OpenSound Control Protocol and Adobe Flash.

GlovePIE (Glove Programmable Input Emulator): a program made for emulating device commands on the computer for non-standard input devices such as VR gloves and video game controllers.

1. INTRODUCTION

One of the biggest barriers to creating a video is the need to learn complicated editing software. If a person wants to express their views on current issues in a visual manner, it is a complicated process involving much technical knowledge of shooting, editing, and producing the video. This system gives the users a limited vocabulary with which to discuss articulated issues with each other that they are passionate about in the form of a Video Editorial.

2. THE MAKE THE CUT SYSTEM

2.1 The Concept

This project removes many of the technical barriers to video making by aggregating news headlines, related images, and video from various news sources, and a library of music. Using these tools, users will be able to arrange this media and add in original voiceovers to present their stance of the issue that they choose. The system eliminates further complexities from the system by guiding the user through the process of selecting a topic, arranging footage and images, and adding music and voiceover.

The interaction will take place through a Wii Remote. This method is analogous to the experience most users have watching television by providing simple, hand-held interaction.

2.2 The Technology

The *Make the Cut* video system is an Adobe Flash application using a flash media server backend and a Nintendo Wii Remote for control.

The Wii Remote is connected to the computer via a standard Bluetooth dongle. For *Make the Cut*, we specifically are using an Asus WL-BTD201M due its compatibility with Wii Remote connection. A full list of compatible Bluetooth devices can be found on www.wiili.org. Once connectivity is established, the data is interpreted by a GlovePIE script written for the Fwiidom project which prepares it for the OpenSound Control protocol. Flosc is then used to send the data to the *Make the Cut* application. Once in Flash, various action listeners are used to control the application.

For a media server, *Make the Cut* uses Red5, an open source alternative to Flash Media Server, running on top of Apache Tomcat. After the user selects a video to add to the timeline, it is streamed into the application. The user then employs the Wii Remote to change the in and out points which are stored in the application. The soundtrack is chosen and edited in a similar manner. When adding voiceover to the movie, a single sound file is recorded from the user's microphone and streamed to the Red5 server. When playback is initiated, the in and out points stored on the users machine are used to seamlessly stream the user's chosen video, music, and voiceover.

3. HOW TO USE MAKE THE CUT

3.1 Setting up the System

Because *Make the Cut* represents the coordination of several technologies, nominal the initial setup of the system is moderately complex. The system requires connection to a Flash media server. If the user does not have access to one, it can be run locally using Apache Tomcat and Red5 as in the prototype. Instructions for setting up this configuration are available from the creators of Red5 at www.osflash.org/red5/windowstomcat. Once Red5 is operational, the source videos should be placed in the streams folder.

Attaching the Wii Remote requires that the run the Fwiidom OSC script in GlovePIE and the flosc server. Both are included with the Fwiidom library. Once the Wii Remote is connect and these two programs are running, the data from the remote will be transferred to *Make the Cut* through Fwiidom.

3.2 The Wii Remote Interface

To keep the Wii Remote interface as consistent as possible, each of the buttons has been assigned a single conceptual function. The directional buttons at the top of the remote are used for highlighting choices within the interface. The A button is used for moving to the next section of the editing process. The Plus (+) button is used to add selections to the timeline. The 1 and 2 buttons change the in points and the out points of contents, respectively.

3.3 A Step by Step Guide

When the user starts *Make the Cut*, they are presented with a title screen. Pressing the A button begins the editing process.

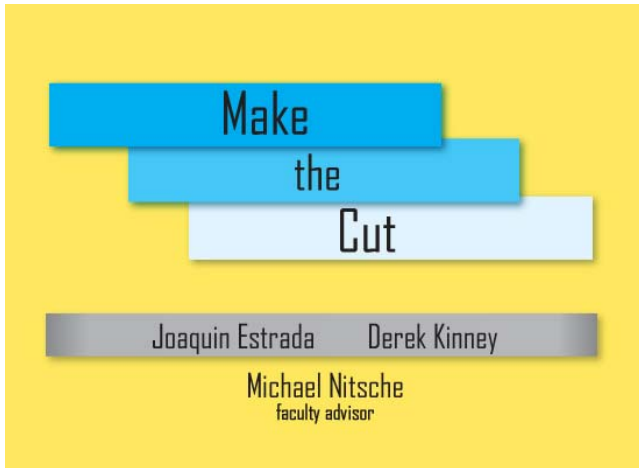


Figure 1: the title screen.

The next screen is the topic selection screen. Here, the user is presented with several different topics which they can make a video about. The directional pad highlights the topics and pressing the A button moves on to editing videos about the chosen topic.



Figure 2: the topic selection screen.

The video editing screen has a list of videos that the user can choose from. The directional arrows highlight the different videos. Pressing the Plus button opens a video for previewing and editing. While editing the video, hold the 1 button and rolling the Wii Remote from side to side changes the video's in point. Holding the 2 button and doing the same changes the out point. When the user is satisfied with the section of video, pressing the Plus button again adds the edited video to the timeline. The user can then repeat this process until all desired clips have been selected or the timeline is full.

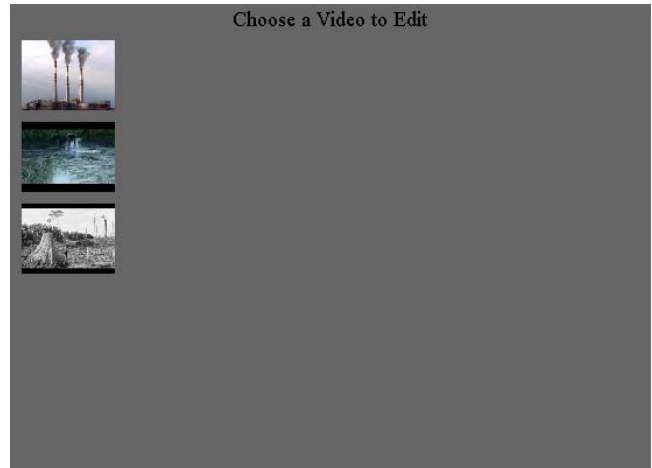


Figure 3: the video editing screen; choosing a video.

Once a video has been added to the timeline, pressing the B button will allow the user to start and stop a preview of the overall video so far. While the video component is finished, pressing A will go on to the addition of a musical soundtrack.

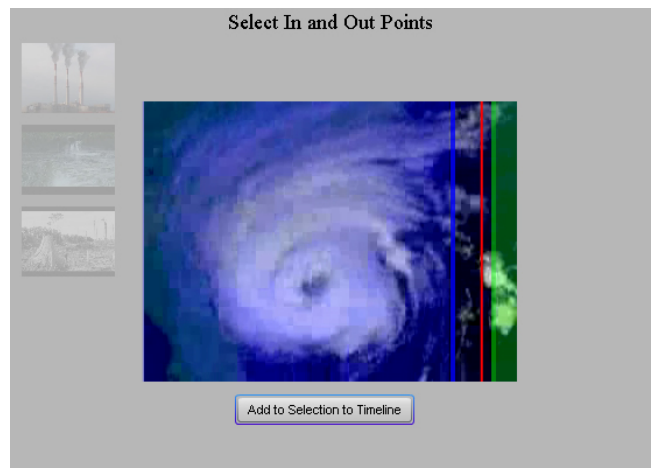


Figure 4: the video editing screen; editing a video for addition to the timeline.

The soundtrack is edited in the same way as the video. The directional pad highlights. The Plus button opens a song for editing. The 1 and 2 buttons—along with rolling the remote—select where the song selection will begin and end. The B button controls a preview of the music and video. Finally, the A button moves on to adding commentary.

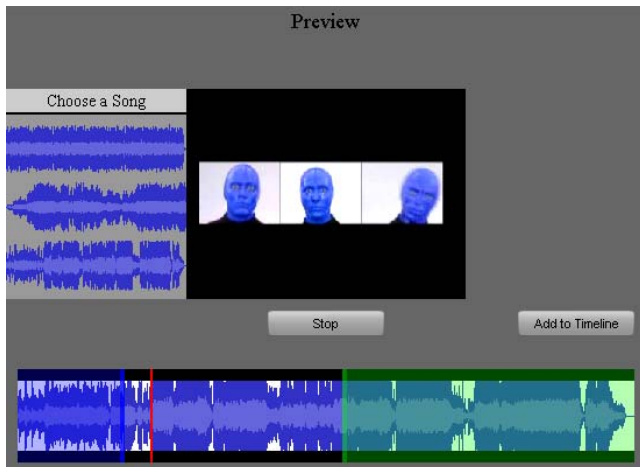


Figure 5: the music editing screen.

In the final step of editing a video, the user adds a voiceover track to the video. Here, the Plus button starts and stops the recording. Again, the B button starts and stops a preview of voiceover, music, and video.

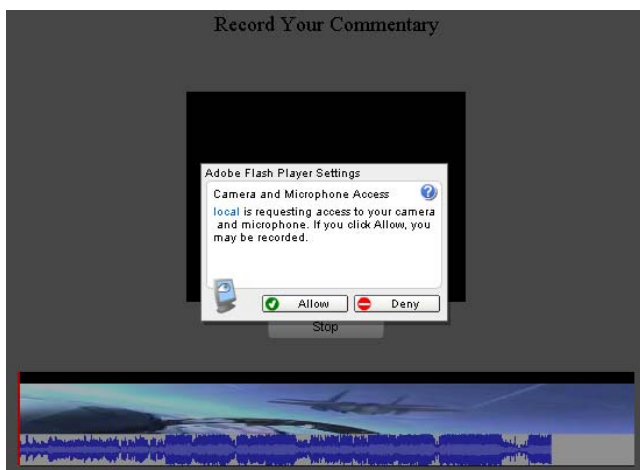


Figure 6: the voiceover recording screen.

Pressing the A button on this screen brings the user to the “Your Cut” screen where the video can be played in its entirety by using the B button.

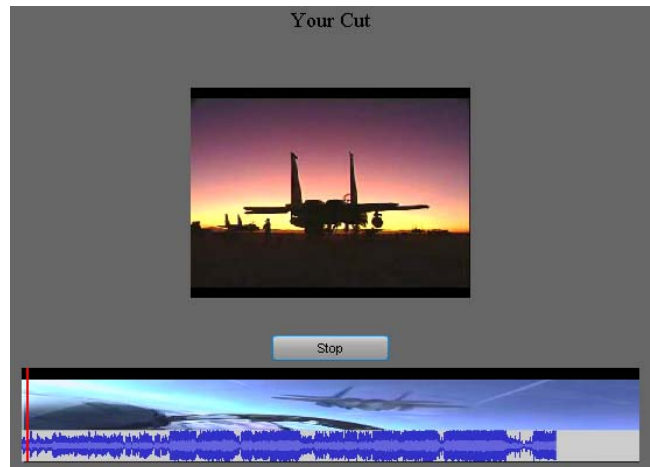


Figure 7: the user's cut.

4. THE FUTURE OF MAKE THE CUT

Make the Cut represents a work in progress. While the basic structure of the system is now in place, there are many things that could be added to or improved in the system.

In the current version of *Make the Cut*, the video and the user-recorded voiceovers make use of the Red5 server, but the music does not. Ideally, with the system in a web-based environment, everything would be streamed from the server with the Flash application itself running client-side from the user’s browser cache.

With this ideal, completely web-based implementation, the addition of many other features would be made trivial. Probably the most effective feature this implementation would bring about is the addition of dynamic topics and content. The system could present users with a new set of current controversial topics each for a period of time, and members of the community could then create videos on the issues that they care about. The users could also possibly add their not only their own voiceovers to finished videos, but also videos and music to the library already on the server. They could also point the system to grab videos and music from elsewhere on the internet.

With this web-based community in mind, another additional feature that would serve well is a user login system. With this, users would be able to not only create their own videos, but store them and comment on those others have made.

In outputting the final videos, most likely the best implementation of this would be simply storing only the in and out points of the content and the users’ original voice tracks. This would eliminate duplication of content on the server that is used in multiple videos.

Another improvement that could be made would vastly improve the user-friendliness of *Make the Cut* would be to refine the control by the Wii Remote. In the current system, the buttons of the remote are extremely particular. If a user is not sharp and precise with their button presses, it usually results in adversely affecting the system. Improving upon with would be a great credit to the system.

In light of an online community-based version of *Make the Cut*, it is important to note that not every user would own a Wii Remote. While the current system allows a user to still use a mouse for most functions. With others, use with the mouse is fairly quirky and not guaranteed to work. An improvement on this front would make the system accessible to many more users.

Two other additions to the system that would greatly increase usability would be the making the play head movable and allowing editing of the video in the timeline. By making the play head movable by the user, any part of the video may be viewed independently of the entire video. This could be done by binding the action to the Wii Remote's Home button and rolling the remote in much the same way in and out points are moved in the current version. Editing in the timeline would me users are able to edit their videos after initial assembly. This could be implemented by using the left and right directional buttons to select a transition

between videos and using the 2 button to move the out point of the video preceding the transition or the 1 button to change the in point of the video immediately after the selected transition.

5. CONCLUSION

In conclusion, Make the Cut provides a new manner of expression by using the visual and auditory vocabulary of previously express opinions and combines them with a new point of view. This form of opinion generation offers communication that is more inclusive of the ideas and terminologies of the previously stated arguments. The Wii Remote provides a new generation with a widely available means of interaction so that it can transfer its ideas more intuitively using gestures. This kind of gesture interaction with content may form a new dialogue which users may find more expressive, and this may be what helps to bridge the gap between technology and humanity.