

# ANALYSIS OF THE MOVING IMAGE ONLINE USING A WEB-BASED QUESTION SYSTEM

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## **Abstract**

*Jedda Online is an interactive self-guided tutorial in which students study film language through viewing moving clips from Charles Chauvel's 1955 classic Australian film Jedda. The module is part of a series of tutorials, based on films taken from the Australian canon, which deal with aspects of Australia's social and political history. It makes use of a new question and submission authoring and delivery system - Quokka.*

## **Keywords**

*Australian film, race, film language, Indigenous Studies, online film analysis.*

## **Introduction and Educational Objectives**

Previous uses of interactive media in the teaching of film language and analysis, such as the system noted by Semrau and Boyer (1994), have made use of individual computer workstations controlling video disc players. Others, such as VPrism (2002), have used the internet to stream video files to standalone applications that allow the user to organise and annotate video files for research and analysis. Online support for the teaching of film analysis has largely consisted of information delivery via internet movie databases or library and museum based information sources. With a few notable exceptions such as Jahn (2002) and Engel (2002), there have been few attempts at interactive film analysis online, and even these sites focus on the single shot rather than an entire scene.

*Jedda Online* is part of *Australian Film Online*, a series of three tutorials on Australian Cinema delivered on the web. The aim of the module is to teach classical film language through studying moving clips from the Australian film canon. The online tutorials are designed to be integrated into courses on Australian cinema in which the majority of the teaching is classroom centred. The first in the series is a module based on the Australian director Charles Chauvel's 1955 film *Jedda*. In this module, point of view, mise en scène, diegesis, voice over and narration are taught in the context of the film's social and political interests, that of the representation of race relations in Australia in the fifties, assimilationist debates and story of the Stolen Generations. Students attend a screening of the film and are delivered a one hour lecture, before going on to the web to undertake the on-line tutorial.

The tutorial has five clips. Each clip deals with a particular problem and has a set of questions relating to it. The students are asked to view the clips in any order and then answer a number of questions, in a variety of formats which are designed to teach the principles of film language through close analysis of the sections of the film presented in the clips. Some of the questions are multiple choice, in which the students get immediate feedback. Others are short essays which are submitted and corrected by a tutor online, complete with annotated comments. The teaching of film language through online viewing of film clips is especially useful because it enables closer analysis of film than is possible through conventional teaching. Through viewing clips at extremely close range, and by allowing students to control their

playback, it is possible to demonstrate technical aspects of film language in a way which is unique. By incorporating clips of the film under study into the tutorial and by making it possible for students to view the clip online as many times as they wish, students are able to study the film in close-up and in a way which would otherwise would not be possible. It also enables students to self-direct their learning and to do it at their own pace, providing a much enhanced system of learning over traditional teaching methods. By having a good quality film clip on the screen, students are able to study the principles of film analysis at first hand, which they can return to, as many times as they wish, until they are able to grasp the principles being taught. The module is also innovatory because by using Australian films, students are able to become more familiar with films from their own national tradition, rather than from Hollywood films, the traditional vehicle for teaching film language.

## Educational Design

Students gain access to *Australian Film Online* via the University of Melbourne's WebRAFT (Web Resources Automated For Teaching) learning management system. WebRAFT is an authentication system for subject-based web sites. Students log in to the subject *Australian Cinema*, using their university email username and password, and proceed via a subject home page link to *Australian Film Online*, which is housed on a separate server machine. This tethered but separate structure enables *Australian Film Online* to be used by a number of different subjects, perhaps spread over different semesters or years. Students are first presented with a "Course Guide" screen, which enables them to select a particular film. Each film has a "Task Guide" that introduces the film, explains what the student must do, and provides access to film clips and questions. Film clips are of 2-3 minutes duration and are organised according to film theoretic concepts since it is these concepts that are the focus of close analysis. For example the film *Jedda* is broken up into five selected extracts that are arranged into the sections:

- Diegesis, Voice-Over, Moving Camera and Mise-en-scène.
- Assimilation and Symbolism.
- The Fade.
- Subjective point of view and camera movement.
- Blackface and the fall.

The fundamental pedagogical approach is that of question and answer. There are two main styles of question: multiple choice, short answer questions with immediate feedback provided by the system, and short essay style where students type in more interpretive answers, which are viewed and marked online by the tutor at a later date. The tutor can also provide feedback comments online. When a clip is selected, the first question pertaining to that clip is displayed, along with a link to view the clip, and a question menu to access other questions pertaining to the same clip. The clip is displayed in a separate window so that the clip only has to be loaded once and students can quickly navigate between the question window and the video clip window.

*Australian Film Online* is designed so that the short answer, instant feedback, questions can be used by students to diagnose which concepts they understand or where there may be misconceptions. The essay style, tutor marked, questions are assessed and are meant to provide feedback on qualitative and interpretive student work. The latter style of question is meant to replace a paper-based "take home test".

## The Quokka Quiz and Submission System

*Australian Film Online* is the first project to utilise the *Quokka* quiz and submission system created by the Software Development Group of Courseware Development Services at the University of Melbourne (see Acknowledgements below). *Quokka* is a web-based quiz and submission authoring and delivery system. The questions may include multimedia components such as images, video clips, sound bites, animation sequences, and interactive embedded programs (eg, using Flash, Shockwave, Java Applets, Quicktime). *Quokka* uses Java-based technology with student work and tutor annotations stored in a database. Although the *Quokka* terminology uses "Questions", "Quizzes", and "Tasks", the system is so versatile that it is better to conceptualise it in a much more general way as a means of easily creating online student

"Exercises" that can be grouped together hierarchically. The open nature of *Quokka* and the fact it has been developed by an in-house team encourages innovation and the development of new applications:

The power of *Quokka* lies in its flexibility for building additional question and exercise types that encourage innovation and creativity. New quiz types, or modifications of existing quiz types using standard HTML or interactive embedded programs, can be added to *Quokka* if and when the need arises. *Quokka* also provides a general category of submission exercises called Construction Submission Exercises. This allows the deployment of assignments in which the student can use multimedia elements to construct a design that is submitted to *Quokka* for tutors to mark. (Yau, 2002)

Some of the features of *Quokka* are:

An Extensible set of question/exercise types - MCQ, Multi-select, Textual short answer, Numeric answer, Memo, Item Ranking, Essay Submission; Questions/exercise may include multimedia elements (eg, using Flash, Shockwave, Java Applets, Quicktime); Questions can be presented in any specified order; Questions can be grouped into subsets; Questions can be displayed one-per-page or many-per-page; Questions can be easily duplicated; Web-based question and test authoring; The number of attempts can be specified; The number of marks per question can be specified; Automatic marking is done in "Immediate" mode; Tests can be scheduled on a given date; Customisable user interface with header/footer elements to suit any web design; Students can be allocated to markers for marking; Students results are shown onscreen, and can be imported into a spreadsheet. (Yau, 2002)

In addition to providing tutor access to student work, the system facilitates ease-of-administration of students, user groups, allocation of tutors to groups, and the whole marking process.

## Online Video Issues

The following issues, particular to the use of online video, arose in the course of the project

- An obvious issue is obtaining the right to use extracts of the relevant films. This varies greatly from film to film and had to be negotiated on an individual basis.
- Associated with negotiating rights is determining the length of segments to be used. In this case the approach is to analyse an entire scene or sequence of scenes, compared with say analysing an individual shot, as is the case with the *Deconstructor* (Engel, 2002). An ideal length for analysis proved to be 2-3 minutes duration. Using five clips of this length, or about ten minutes total, was found to be a good duration in the negotiation of rights, and very practical in terms of the transfer from film to digital video and delivering via the internet.
- Another consideration when using video is the quality of presentation. In order for students to be able to analyse detail and subtlety within the given sequences online, it was determined that students would need to access the clips on campus using a fast-start MPEG Quicktime movie format. The frame size, file size, and compression parameters were fine-tuned over a number of iterative cycles in development. While a streaming video, modem access option was also initially provided, it just was found to be unviable as a serious analytical tool because of the poor image quality.
- On campus delivery also introduced the necessity for timetabling access time for students in designated computer labs and preparing those labs with the necessary Quicktime plugins.
- Several of the authors have visited Broom to examine the feasibility of using *Australian Film Online* at a remote location with the video clips accessed via CD-ROM.

## Evaluation and Discussion

A student trial took place in semester one, 2002. The trial was held in the computer lab in which the program will be accessed in future. The trial group of seven consisted of five undergraduate students and two postgraduate students acting as undergraduate students. One lecturer and one tutor supervised the class, with four staff from the Courseware Development team making observations and assisting where

necessary. While this was a large number of staff involved, it was useful for the development team to see the use-patterns of individual students.

It took about 45 minutes for students to settle in and complete the questions associated with Clip 1. Students spent about 15-20 minutes on each of the remaining clips - about 1 hour 45 minutes in total. Overall students worked very well through the questions, spent a long time studying the clips, and gave very lengthy and considered answers to the submission questions. Students' favourite question of tutors: "How much should we write?"

Six students provided feedback in the form of answers to a questionnaire. The authors have used many complicated questionnaires in the past, but their value has proven to be very patchy, since the nature of the questions asked can greatly influence the type of responses received. In this trial it was decided that a minimalist approach would be used. The students were asked to list five things they liked about the program, list five criticisms, and make a statement on how the program could be improved. One of the things that students liked about the program was its accessibility: "Having the clips available online refreshes your memory without having to go to the library and try to find an available copy of the film. Helps with textual analysis." and "The whole concept is very beneficial for not only learning but to get a feel of the film and to get you thinking of the film and its concepts." Students also liked the mix of concepts and variety of question types: "(I liked)...the combination of short answers, essays, and multiple choice questions." The program was felt to be clear and easy to use. While a few criticisms were concerned with technical issues, like confusion between "Save" and "Commit", most of the criticisms were to do with the style of questions: "Some essay questions were not flexible enough, with few options for interpretation." or "Multiple choice questions are nice for instant feedback, though seem simplistic." There were constructive suggestions for improving the program including changes to the formulation of certain questions and improving readability.

In general students found that with *Australian Film Online* "...close textual analysis (of whole scenes) becomes much easier and can be even more focused." The trial observations indicated that students would become "independent" very quickly if the materials were spread over a number of weeks with several films. Future developments will include amending *Jedda Online* according to student feedback, adding the films *Celia* and *Radiance*, and further enhancements to the Quokka system.

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