‘Using iMovie for Spoken Language Learning’

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## Introduction

Video-related CALL material has been described by several writers (Pennington and Esling: 175; Ashworth: 92) as one of the most obvious resources that could be of benefit in spoken language learning. Until recently, however, computer-based video delivery systems[1] were large, complex and relatively immobile; which presented problems for their use in the language classroom. This has now changed. Relatively cheap, lightweight, portable, powerful, easy-to-use, computer-based systems utilizing generic video editing software are now available. This article will outline that technology and look at one video editing software package, examining how they can be used together to assist with spoken language learning in a classroom environment, free from the restrictive layout of the typical language laboratory. A set of materials for a sample lesson is is available on the Internet at www.woollerton.com/edu/resources.shtml, the rationale for which is outlined in the latter part of this paper.

## The Technological Advance from 1990 to 2000

[1] The use of ‘system’ in this paper refers to a hardware and software combination.

Until recently, the biggest hurdles to overcome if one wanted to use digital video on a personal computer were 'capturing video'[2], as well as distributing it or storing it on computer, because the quantity of data that digitization produced was so vast that computers were not able to process and store it easily.

Ten years ago, the computer world and the video world were thought of as discrete, separate entities. Now the line between them is blurred. Personal computers' processors have advanced significantly over this period, hard disk drives have become much faster and bigger, and the Random Access Memory installed in computers has increased dramatically. Computer software programs now enable video to be handled in a flexible, non-linear way. In the field of network technologies, the rapid acceleration and adoption of Ethernet is facilitating the distribution of video media over local area computer networks.

In addition to this general progress, three key technologies have recently become readily available which make data handling problems a thing of the past. They are DV format video, data transfer by IEEE1394 and DVD data storage devices. With the availability of these technologies it is now possible to treat video as a fully manipulatable resource on the computer and thereby more easily incorporate computer-based video into the CALL framework. The three key technologies would be of significantly less value, however, were it not for cheap, intuitive, authorable and easy-to-use video editing software that forms the interface between the computer and the learners; the prime example of which is Apple Computer's *iMovie*.

[2] Converting video from analogue to digital form

The Empowerment Provided by New Technologies

Until very recently (from 1999 onwards), it has not been realistically feasible to use computer-based video systems outside of a studio, library, language laboratory or other fixed setting, because of the amount of hardware required. This is definitely no longer the case. A teacher wishing to use computer-based video in the classroom needs only the following: a DV (Digital Video) camcorder with an IEEE1394 (also known as FireWire or iLink) port ; (2) a computer with an IEEE1394 port, sufficient hard disk space (2 gigabytes or more), and sufficient RAM (64 megabytes or more); (3) a suitable data storage device (such as a DVD-RAM drive) or a fast network connection (100BASE-T or 1000BASE-T Ethernet). It is quite possible for a teacher to carry a light-weight laptop computer, DV camcorder, tripod and two or three cables into the average classroom and be ready to exploit computer-based non-linear digital video for whatever teaching purpose he/she has in mind.

Let us now consider how the availability of the three key technologies (DV format video, FireWire and DVD data storage devices), make computer-based digital video exploitation possible in the classroom.

The Digital Video (DV 25) format has replaced analogue format on consumer-level video camcorders. Digitization and compression of the video occurs inside the camcorder and SMPTE timecode is written on the tape allowing computer software to do frame-accurate editing and control the camcorder to enable scene logging, batch capturing, as well as playback, review, cue and recording on the DV camcorder. This is achieved using just one IEEE1394 cable.

IEEE1394 is a technology for connecting hardware devices and transferring digital data between them. It is much faster and simpler to use than its predecessor, SCSI[3] . IEEE1394 is 'hot-plugable', supports up to 63 inter-connected devices, and is best suited for connecting devices which store or need to transfer very large amounts of digital data at high speed: DVD-ROM drives, DVD-RAM drives, DV camcorders and hard disks. Most hard disks currently being produced have no problem handling the 3.6 megabyte per second DV format data transfer rate, eliminating the need for expensive, noisy, immobile and difficult-to-configure RAID[4] storage systems.

DVD[5] is an optical disk technology and the successor to Compact Disk. DVD can currently store 2.6 to 9 gigabytes of data on one disk, increasing in future to 18 gigabytes. The two kinds of DVD are read-only (DVD-ROM) and writeable (DVD-R, DVD-RAM, DVD-RW, DVD+RW). DVD-ROM will become the most common form of media for computer software distribution in the near future. DVD-RAM is intended for use with personal computers and home recorders. DVD-RAM and DVD-RW can, by encoding in an MPEG format, store 120 minutes of video on a 4.7 gigabyte disk. A CD-ROM, in comparison, could only hold approximately 16 minutes worth of such data. The value of DVD is clear: its high capacity makes it ideal for the storage and distribution of video data.

An introduction to iMovie

[3] Small Computer Systems Interface and is pronounced 'SCUZZY'
[4] Redundant Array of Independent Drives; a system using several hard disks in tandem.
[5] Digital Versatile Disk

The final element in making laptop computer video in the classroom a reality is Apple Computer's home consumer-level video editing program, iMovie.

The software is available in several different languages including English, Japanese, French, German, Italian, Dutch, Spanish and Swedish. Prior to the release of iMovie, most video editing programs had been quite complex and difficult to use. iMovie is, on the other hand, extremely simple and straightforward. It has such an intuitive interface that it's very easy to imagine how it works simply by looking at the screen for just a few moments. This, coupled with the low cost, useful features and the considerable popularity of two of the host computer models, mean that iMovie has proved to be a very popular program with not just home users, but also teachers, learners and educational institutions.

iMovie's cost is low or free. Version 1.0 was originally bundled[6] with the iMac and iBook models in 1999. Thereafter it was made freely downloadable from Apple's Internet Web site. Version 2.x was bundled with all Macintosh models sold from summer 2000 onwards. An upgrade from versions 1.x to 2.x can be downloaded from the Apple Web sites for a modest charge.

iMovie is a generic video editing application program. iMovie was originally designed for use with the iMacDV model and only runs on Macintosh computers. It has received such acclaim, however, that Microsoft has now released a similar program, Windows Movie Maker, and included it as part of the Windows ME software package.

The application program software occupies approximately 13 megabytes of hard disk space. Apple Computer states that the minimum hardware requirements to operate the software are a Power Macintosh

[6] Supplied with the purchase of a computer

computer with at least a PowerPC 750 [G3] processor, running at 300 megahertz or higher (it will also run on earlier models of Macintosh computers which have had an processor accelerator upgrade card installed), at least 64 megabytes of RAM (128 megabytes or more is recommended), and a minimum of 200 megabytes of unused hard disk space (4 gigabytes or more is recommended), a CD-ROM, DVD-ROM or DVD-RAM drive, and a monitor that supports 800 x 600 resolution and thousands of colors. These are modest hardware requirements nowadays.

Using iMovie - A tour of the Interface

Starting the iMovie application results in a dialogue box asking if one wants to i) create a new 'movie' (iMovie's name for a work project), ii) open an existing movie or iii) 'quit' (leave/exit) the program.

Once one has made one's choice for either i) or ii) (above), the main iMovie screen is presented to the user. [Refer to figure 1, attached.] There are slight differences between the items and layout of the main screen in version 1.x and version 2.x of the program. The screen shot included with this document is of version 1.01. The principle features of the main screen are as follows (with important differences between versions 1.x and 2.x indicated in parenthesis and items referred to in the text labeled on the screen shot image):

a) The Shelf is a storage space for up to 12 video clips in version 1.x of the program. (In version 2.x a scrolling feature has been added to accommodate more clips.) Video clips stored here are easily manipulated. They can be 'click-and-dragged' to different receptacles on the Shelf or to the Trash for deletion. Clips do not have to be placed contiguously or

sequentially in the receptacles. Clicking on a receptacle which contains a clip activates the clip and makes it appear in the Monitor Window. If a video clip is deemed to be no longer needed, it can be dragged from its receptacle to the Trash [see g), below].

b) The Mode Buttons (Camera, Video, Full Screen), determine whether the program is manipulating clips already stored in the project (Video mode) or video footage one desires to import from a DV camcorder (Camera mode). The Full Screen mode enlarges the Monitor Window, so that the entire computer screen is used for playback.

c) The Monitor Window is where one can view or review video before, during or after it is imported. Imported video clips play back here in full motion and with very good sound quality.

d) At the bottom of the Monitor Window are the Camera/Video Clip Transport controls. These are used to rewind, cue, play, pause or stop the transport of video clips when the Video mode button is selected or to control the transportation of the tape in the DV camcorder and capture clips from tape using the Import Button, which becomes visible when the Camera mode button is selected.

e) The Timeline has two modes which are selected alternately by clicking on the Timeline Viewer's tabs. One tab, upon which is a graphic of an eye, allows the selection of the Clip Viewer mode. This shows the sequence in which video clips will be played by the program and any transitional effects (transitions), between those clips. The other tab, upon which is a musical note motif, allows the selection of the Audio Viewer mode. This contains three tracks; one each for the placement of music or sound effects, narration and a third track which allows for the sequencing and editing of the sounds with video clips.

f) An area called the Design Panels, in the area below the Shelf, has four buttons labeled Titles, Transitions, Music and Sounds. Clicking on any of these buttons results in a screen sliding up revealing a palette of controls to add the those features to the video. In iMovie version 1.x the features are as follows: The Titles palette [see figure 2, attached], allows the user to select any font that is installed on the host computer in any one of 16 colors or shades of gray. There are 12 different ways that titles can be superimposed on the screen including as subtitles, scrolling text, crawling text, et cetera. The Sounds palette allows the user to record his/her own voice or any other sound and to select any one of 19 sound effects. The Music palette allows the user to select audio clips from digital sound sources such as a CD. Lastly, the Transitions palette allows the user to select any one of 9 transitional effects to place between video clips.

g) The Trash, located directly under the Shelf, is used for deleting unwanted clips. This is iMovie's own Trash, not the regular Mac OS Trash. Trashing a clip will make more hard disk space available.

Additional resources and features were added with version 2.x of iMovie, such as a scrolling Shelf, a greater number of transitions. The most important improvement was, however, the ability to import and export QuickTime DV files or QuickTime streaming files for use over the Internet.

There is no printed manual for the program, but there is not really a need for one. Apple has a section of its Internet Web site[7], devoted to iMovie with special emphasis on reporting on the application of the software for educational purposes. There is also an 'iMovie Help' program which explains the purpose and function of the interface elements and how to use the software. Another feature is 'Balloon Help', a system-wide

[7] www.apple.com/education/

feature of the Macintosh operating system, which, when turned on, makes balloons containing explanatory text appear over interface elements when the mouse pointer is moved over them.

## Evaluating and Using iMovie for Spoken Language Learning

iMovie is being used for a great deal of different educational work. Most of the projects suggested or reported on the pages of Apple Computer's Internet Web site relate to general education rather than ELT. Numerous possibilities suggest themselves for ELT-related usage just by looking at iMovie's interface, however. This includes a lot of ideas that would be particularly suitable for spoken language learning. In order to understand the rationale for exploiting this technology, the following allow us to broadly categorize the areas we should be concerned with: the physical learning environment, the 'learner fit' (Hubbard: 26-27), and the 'teacher fit' (Hubbard: 26-27).

'The learning environment... needs to be informed by good practice issues' (Motteram & Slaouti, 1999/2000a: 10) and Weidmann (1993: 30) wrote about a purpose-built environment which had, as one of it's aims, to create an 'opportunity for pupils to interact and cooperate with peers and the teacher'. One of the objectives of using the iMovie software with a laptop computer and camcorder is to create that same opportunity in any classroom that has at least one television screen. In such an environment, learners can work with the computer as individuals, in pairs or in small groups at any one time. Any remaining learners can observe what is happening on the computer by looking at the television screen. This kind

of classroom arrangement is much better than the typically confined and fixed layout of a language laboratory, because the use of space assists the movement and interaction of the teacher and the learners, as noted by Motteram and Slaouti, (1999/2000a: 10).

As for the Learner Fit, the students that this writer works with were described in detail in the first part of this module's assignment (Woollerton, 2000:2). In addition to what was described previously, the following can be said of the target learners and the learning environment they are in:

The majority of the learners have elected to take a spoken language class for one 80 minute or one 90 minute class each week. The class sizes vary considerably (from 4 to 30 students on the roll), but the actual average attendance is generally two-thirds of the students. Each class meets approximately 30 times over one year. There is no integration or coordination of syllabi between the different courses at the learning institutions. There is little or no communication between faculty members regarding the content of courses or the perceived needs of the learners. The teacher has sole discretion to determine the content and pace of the lessons and the assessment and grading of the learners.

The learners are of mixed ability, but mostly share a desire to improve their spoken language proficiency. They do not always demonstrate sufficient self-motivation to study outside of class, but most make an effort to be active in the classroom.

Each of the learners has a textbook. The textbooks vary from class to class, but are 'communicative' in their approach with an emphasis on conversational tasks or functions. Typical examples of the kind of textbook would be Richards, Bycina and Aldcorn *New Person To Person* (1

& 2) Oxford: Oxford University Press. The textbooks have been used with their accompanying audio cassettes, which feature conversations and real-life listening tasks.

The learners generally enjoy role plays, games, simulations and challenge-type tasks. In this writer's classes, much emphasis has been placed on pair and small group work and the learners are therefore accustomed to being organized in such a way for class activities.

Considering all of these points, we could simply conclude therefore that the most important points that must be remembered when determining the 'learner fit' are the learner's general ability, the learner's general desire to improve his or her spoken language ability and the courses' general goal to allow the learner as much time as possible to practice speaking in order to achieve confidence and ability in relation to certain communicative tasks or functions set out in the textbooks.

Also relevant to the learner fit are Thorn's ideas (included in Motteram & Slaouti, 1999/2000a: 23-24), regarding the role of CD-ROMs; iMovie's interface even looks like and its operation resembles that of a CD-ROM based program. The interface allows 'ease of use and navigation', thereby avoiding competition 'between learning English and learning' the program. In fact, as iMovie is available in several different language versions, having to learn the program in a foreign language can be entirely avoided. The 'cognitive load' of dealing with iMovie's content and structure is entirely manageable. Moreover, iMovie allows 'strong media [video, audio and text] integration' and its 'aesthetics' and 'overall functionality' are very good.

As for teacher fit, there is the obvious peer-to-peer communication on negotiating the language of a software interface or interacting with

video training programs, suggested by Pennington & Esling (187) and the playback of video clips featuring authentic examples of the target language (ibid.: 175).

Perhaps more importantly, the software and hardware system described here could be used to create simulations, for example of a television game show environment, because games and simulations are regarded by several writers (Ashworth, Harrison and Cheung, Jones, Pennington and Esling), as useful types of activity for heightening learners' interest and motivation. The desire to run simulations and play games are also a large part of the rationale in using this system because 'simulations are seen generally as a good way of promoting language' and they 'attempt to model real life' and 'include an element of role playing' (Motteram and Slaouti, 1999/2000b: 6). Games or simulations could be run using iMovie in either 'move-based' or 'real-time' modalities (Harrison and Cheung: 156) and cited by Motteram and Slaouti, (1999/2000b: 7). To do this in real-time mode, segments of video black or a still frame could be placed in the timeline for an appropriate duration or the audio could be removed for the places where a learner has to respond.

As a teacher, one would probably be aiming to assist learners deal with 'the meaningful aspect' more than with the 'mechanical aspects' (Pennington and Esling: 154) of spoken language. Another aspect of the focus would probably be on 'transactional language' as outlined by Brown and Yule and cited by Pennington and Esling (154) rather than 'interactional language' (ibid.), because unlike the latter, the former is a 'structured form of language built on certain topical areas and linguistic conventions' (ibid.), so it is easier for learners to use skills such as prediction and recall of appropriate lexis, tone and rhetorical skills, than

it is with ‘interactional language’. With low-level or intermediate learners this is an important consideration.

## Authoring tasks in iMovie

In using iMovie, because it is a generic program, the software functions as a ‘tool’ (Levy, 1997: 83). To use the software to play games and simulations therefore requires the teacher to author the input and for the teacher or other learners to evaluate the output of the learner(s) interacting with the software. The kind of authoring that would be required of the teacher would be to select video, audio or text material, import that into iMovie, arrange it as needed and save the arrangement as an iMovie project. Given the role of the teacher in setting up the use of iMovie for the learners, it is true to say of iMovie along with any other computer software that the value of software “...for communicative language teaching does not lie in the program itself... it depends what you do with it” (Jones G, 1986: 186) and cited by Motteram and Slaouti (1999/2000b: 7).

iMovie is clearly a hypermedia or multimedia tool and ‘interactivity is a key term in hypermedia’ (Ashworth 1996: 82). Laurel cited by Ashworth said:

> ‘Optimizing frequency and range and significance in human choice-making will remain inadequate as long as we conceive of the human as sitting on the other side of some barrier, poking at the representation with a joystick or virtual hand’.

With the hardware, software and activities described and included here, we can't create what Ashworth describes (82) as the ideal 'first person virtual reality' yet, but we can begin to get closer to it.

The kind of tasks that one creates for use with iMovie or any other program being used in a CALL context should be so designed that learners are able to 'interact' often, with a 'range' which reflects a significant number of choices for the learners, that those choices have some 'significance' for the learning process and that the learner is experiencing 'participatoriness'. (Laurel: 20-21) cited by Ashworth (82). The kind of tasks that immediately come to mind when one considers both the learner fit and teacher fit would be conversational dialogues that match the content of textbooks in terms of the function or task that they relate to. Tasks could be used for any of the three input types, pre-production, in-production or post-production, described by Pennington and Esling (155-156). Video footage for these can be imported to be used in its original state or edited into a deformed manner (in much the same way that a text deformation or manipulation program presents gap-fill or out-of-sequence material), to create role play simulations, games and other tasks that would be 'inductive' and 'meaning-focussed' (Hubbard: 23). The Shelf and the Timeline would form the main working area for the learners as they re-assemble, reconstruct or add to the video dialogues. Some specific examples of such tasks are:

i) Learners view a dialogue that is out-of sequence and then work together to reassemble it in the correct order [this kind of task is included as 'Demo1 Movie' (see figure 3, attached) or 'Demo2a Movie' in the teaching materials included with this paper];

ii) Learners view a dialogue that has had one role of one character removed and blanks or gaps made in it. Using a DV camcorder,

learners record responses to the role(s) which remain(s), import these responses to recreate the deleted role and restore the entire conversation [see ‘Demo2b Movie’];

iii) Learners view an utterance and possible replies, choosing the most appropriate response in order to match the context.

iv) Learners listen to audio clips and silent video clips and try to match the correct audio and video;

v) Learners listen to video clips and create subtitles for the clips, as described by Pennington and Esling, (183) [see ‘Demo1b Movie’];

vi) Learners match subtitles to clips or try to create subtitles for clips with no audio.

As for teacher and learner roles in using iMovie, all of the tasks (above), would feature peer to peer cooperation between groups of learners and review by other learners. The teacher would take the role of the facilitator, introducing the task types and guiding the learners through any difficulty handling the software or hardware. The teacher would also be an authority if there was any dispute about the correctness or accuracy of the learners work.

## Conclusion

Because of its simplicity and flexibility, iMovie is an excellent authorable tool that, if used and integrated into the language classroom well, will allow the learner to encounter and use spoken language, interact easily and productively with the technology, and communicate and cooperate with the teacher and other learners. iMovie was not developed primarily as an educational tool and success in using the software and

hardware effectively is critically dependant upon the teacher authoring suitable material which is appropriate in meeting the needs of the learners and determining how this CALL system is used in relation to the overall teaching environment.

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