Learner's Version of a Professional Environment:

Film Subtitling as an ICTE Tool for Foreign Language Learning

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Abstract: Learning a new language can be tedious –except in the environment actually used, in which case it is most exciting. Active learning and engaging learning activities are prominent among the –often not realized in practice– promises of ICTE. Giving learners a special version of a professional environment, not for the purposes of training a professional but for the side benefits of fundamental skills associated is widely practiced in education. In this paper we present a special learning/exercising environment for foreign languages, mimicking a highly specialized professional activity: film/video subtitling. The learner combines listening (to speech, music and other sounds) with viewing (thus incorporating cultural aspects in her learning) in order to come to an understanding which she must then render by suitable translation into subtitles: they will appear as a subtitled film clip and be stored for the student's, the teacher's and peers' later review.

1. Pre-view (Introduction)

The educational software presented in this paper is a learner's version of a professional activity and environment: that of film subtitling. A learner's version of a tool is optimized for learning, not for production. Film subtitling is a special type –art and science– of translation: it need take into account space (available on the screen) and time (synchronization); it can benefit and may suffer from the image context: one may skip subtitling a "yes" when accompanied by the actor's nodding in the screen (from English, say into Greek) but will do a very poor job in skipping subtitling a corresponding "no": shaking one's head from left to right is *not* the way of gesturing discord in Greek!

Translation has been overused in teaching and overvalued in testing foreign languages and thus has come under rightful criticism as a tool for learning foreign languages. For example Richards, J.C, & T.S. Rogers (1986) maintain that translation as a method may encourage focusing in the source text and keep the learner thinking in her mother language, thus discouraging thinking directly in the language being learned; in translating the student often ignores the context and places undue value in "faithfulness". However, translation remains a good if limited exercise and a fundamental faculty: to be able to render in a "target" language, text expressed in a "source" language.

Learning a new language can be the most exciting learning task (for a young human at the beginning of life or an adult in a new environment) or one of the dullest (reciting the past tense of the subjunctive of irregular verbs…). ICT has the promise and has been used –not always with great success– for teaching and learning foreign languages. *Active learning* is supposed to be a great asset of ICTE, often advertised and less often realized by ICTE products, on account of either "activeness" or "learning". LvS, *Learning via Subtitling,* the software presented in this paper, surmounts these shortcomings by using multimedia not as a nice add-on but as the core of an activity which even when presented as an exercise for learning remains a valid real-world engaging task: The student is asked to add subtitles to a film thus practicing multimedia comprehension and written expression.

This short paper is structured in three views: the learner's (in Section 2, addressing *what* the learning environment is), the engineer's (in Section 3, addressing *how* the system has been built), and the educator's (in Section 4, explaining *why* this is a suitable method).

2. The learner's view (What?)

1. The student reads the instructions or discovers how to use the software –the usual case with young learners and ICT– and starts the activity
2. The student can watch the video clip under her own control (pause, restart, skip etc), keeping online notes
3. The student adds the subtitles

> 4. The student saves the subtitles, revisits and reedits them.
> 5. The student sends the subtitles to her teacher, who can make comments and corrections

Figure 1: Subtitling a Spanish film in Greek

Active learning. The value of active processes on the part of the learner (such as writing, solving an exercise, programming) is always stressed when designing educational material. Although "reading", "listening" and "comprehending" are invaluable –and in a deeper sense can be very active indeed– they are considered to be "passive learner activities" which need to be supplemented by others, more active ones. LvS gives the student a specific active role: she must add subtitles to a film clip.

Realistic (meaningful) activity. The student's activity is realistic and meaningful. Subtitling films is not something invented for students –such as reciting grammar rules is, however useful that may be. Engaging in a realistic activity gives meaning to the student's practice and is known to enhance interest and learning. In the case of LvS the student has a concrete goal with clear usefulness.

Hands-on result. The result of the student's work is an artifact: it is tangible, viewable, and can be shown to other students and teachers.

The LvS (Learning via Subtitling) software tool for exercising in learning a foreign language is straightforward and flexible in use (similar to general MS Office tools and Windows philosophy) and does not require ICT sophistication. (Figure 1) The environment is currently available in 6 languages (Greek, English, Spanish, French, Italian and German).

3. The engineer's view (What?)

LvS is a video subtitling simulator designed for educational activities. It includes a video clip view screen (Media Player Interface), a subtitle editor screen and a slides viewer interface. The video clip view screen allows the student to view the film, with or without subtitles. The subtitle editor allows the student to edit and manage the subtitles.
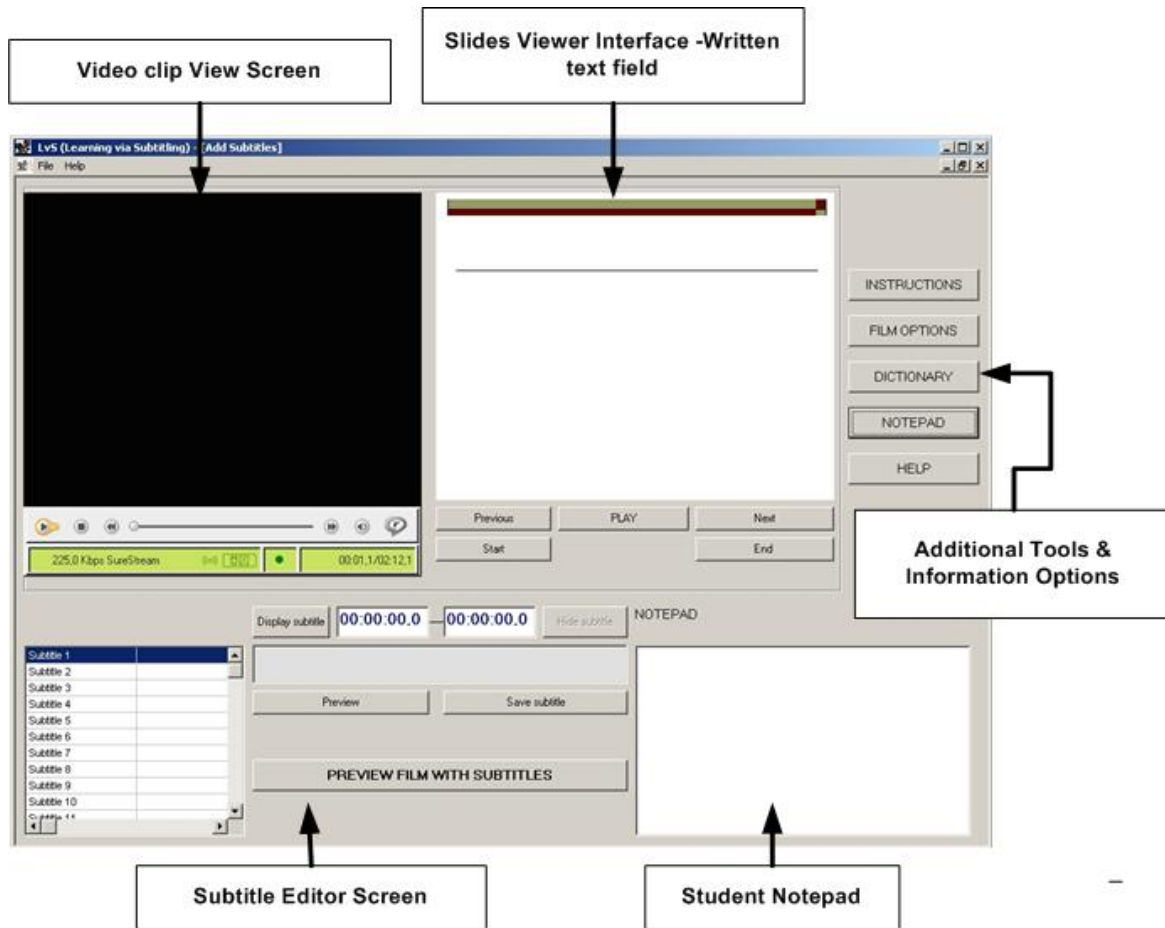
Figure 2: *Student's View of LvS Components*

LvS is running under Windows 2000 or XP and uses Real Player from Real Networks as media player. The video clip (film) is converted in 256X192 size frames, at 25 frames per second. The student controls the media player interface through the navigational controls which include VRC-like controls for viewing and listening and buttons for controlling the slides with information or the film script. The program accepts activities in *.lvs format.

The multiple view information interface provides the facility to access the activities content in a random fashion. Contents can be randomly accessed in various ways. Each section is clearly identified on the LvS interface: the video view screen and its option buttons are in the upper left quarter; on the right are the slide viewer section and operation buttons; on the lower left quarter the subtitle editor and its option buttons; and on the lower right quarter the learner notepad (Figures 1 and 2).

Another large window can be used to present the original film script as text in slides along with still images. As understanding a written text is a different learning activity from understanding oral language, presenting the script is an educationally important option. On the right hand side are buttons for additional functionality (dictionary, help, etc).

The program options are grouped into six categories: activity options; play options; audio controls; slide options, subtitle editing options; and subtitling management options. The student selects and loads an activity. With play options the learner can play a video clip without subtitles; pause on the current frame; stop and return to the beginning. The video clip position bar allows moving forward and backwards on the film or going directly to a specific section. Audio control handles the volume.

The student writes her subtitles using the *subtitle editor*: the *display subtitle button* allows entering the time of the frame in which the current subtitles begin; the *hide subtitle button* allows entering the time of frame in which the current subtitle ceases to appear; the *preview button* allows previewing the clip with the current subtitle. The *save subtitle button* allows updating the changes made on a subtitle already in the list. The student can save the list of subtitles in a file or load a file with a list of updated subtitles. The file can be sent to the tutor for corrections via email. The *preview film with subtitles button* allows the student to view the film with the subtitles. Viewing can be paused and restarted from the beginning or any other point. The Dictionary button gives direct access if the student's computer is connected to the Internet (Figure 3). Whether to use a dictionary is an educational consideration and thus a software option.
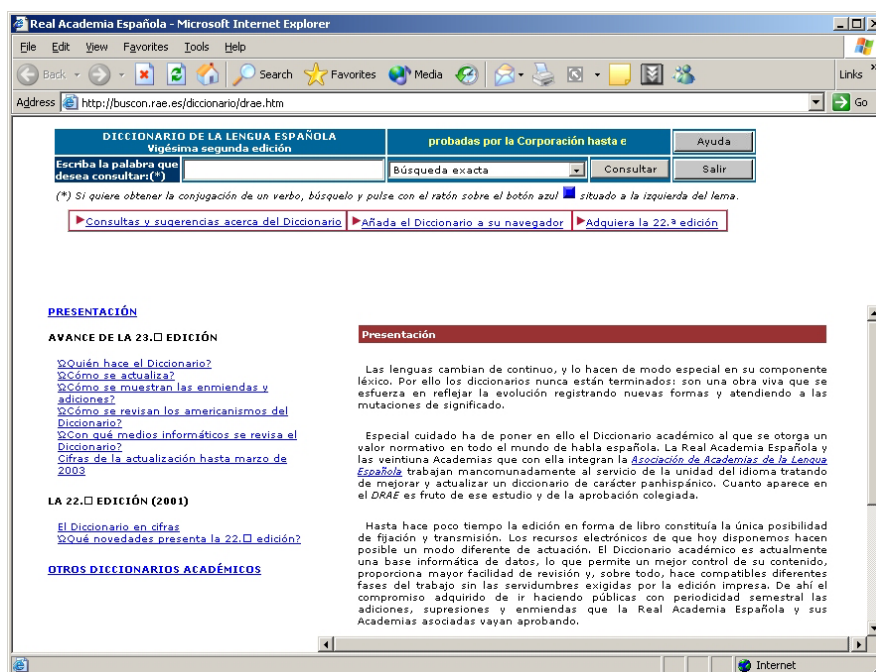

Figure 3: *On-Line Dictionary*

On running the program, the student can choose one of several interface languages. The program reads button names, messages, window headings etc. from a *language*.txt file (english.txt; espanol.txt etc.)

The LvS project is developing a multimedia learning activity tool for foreign language learning that combines the use of CDs for bandwidth-intensive content with periodic network transfers for access to additional Internet re-courses, teacher assessment and program updates. LvS focuses on video presentation and the use of CD/DVD rather than the Internet as the primary delivery mechanism. This choice has been based on the assumption that the use of widely-used CD/DVD formats is more appropriate for learners who want mobility and media quality that is not available with current Internet connections. The combination of using CD/DVD and the Web-bases provides the best of both worlds by using the CD/DVD for the larger part of the high quality media and relying on the web-based for more timely information, access to external links and interactions with course facilitators, graders and fellow students.

LvS, built at the ODL lab of HOU, and freely available for use from http://artemis.eap.gr/eeyem/en_lvs.asp, is an interactive application utilizing standard multimedia and web technologies. It delivers activities content consisting of text and pre-recorded video/film or audio content to the student. A computer with a network connection, a web browser, and a client capable of streaming content (such as Real Player) can be used to run LvS.
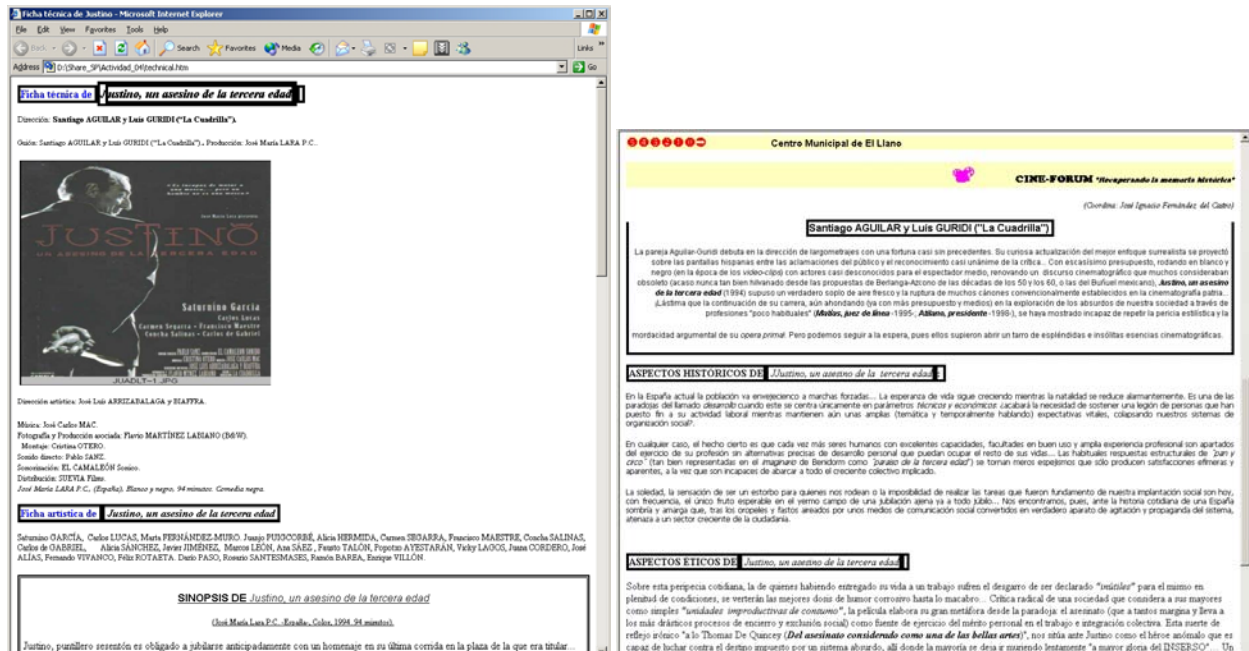
Figure 4: *Additional Information and Technical Data about the Film*

4. The educator's view (Why?)

From the point of view of learning (foreign) languages LvS can be combined with other activities (for instance comprehension questions). Moreover, it gets the learner in touch with idiomatic language use and cultural references, an integral part of the process of learning a foreign language (Kramsch, C. 1993). Video has been used in different ways for many years to support student learning in all branch of education. Authors like Bates (1985), Davis (1988) and Shephard (2003) have described particular attributes of video that can make it powerful media for learning. Abstracting information, narrative visualization, recognition and identification by the student, are some examples.

From the point of view of ICTE, it is very trendy to talk about "multimedia-based learning" but few valuable educational activities actually utilize multimedia productively. *Learning via subtitling* as a learning activity has video not because "video is nice" but because it is indispensable: the exercise is to add subtitles to a film clip, so viewing the film is essential. Similarly for the sound, speech included: it is not a nicety but an integral part of the activity. Using multimedia in educational activities is not a goal in itself; "multimedia educational software" in which video is just a nice (?) add-on, are abundant. This is educationally inexpedient: attracting the learner's attention with flashy irrelevancies has very short live span; novelties wear out very quickly unless truly integrated with learning.

Subtitling as a professional task is a form of translation under specific conditions. Subtitling is not the same as translating the script of a film. A meaning expressed in multimedia form, with video and sounds including speech, must be transformed into an equivalent meaning, including the same sounds, plus a short written text. The text must be short so that (a) it covers as little part of the screen as possible and (b) can be read quickly enough for the spectator to be able to watch the images of the film (Ivarsson, 1998). While all these are professional subtitling requirements, they represent small interesting challenges in the use of the learning tool; challenges which can be lowered or raised according to the needs of teaching and learning. These constraints render a word-for-word translation impossible, thus liberating the student/subtitler and forcing her to focus on the core of the utterances heard.

From the point of view of teaching the flexibility in use of LvS is evidenced in that it can be used for live or distance teaching, for any number of students, with unlimited (cultural) choice of film content (modern vs classic), for any suitable duration of video segment and adaptation to the level of students (beginners, intermediate, advanced) their age and interests.

5. Post-view (So what?)

The software *Learning via Subtitling* is at the prototype stage and the learning activity at the research phase. The software is rather stable and available at http://artemis.eap.gr/eeyem/lvs.asp but as it has not been extensively used in actual circumstances it should be considered a beta version. Educational evaluation, i.e. how LvS can contribute to learning, is a complex task. LvS will be taken up for use and evaluation by the foreign language graduate programs at the HOU to be used as a case in point for ICTE in foreign language teaching and will be evaluated for the extent it can be integrated in a language course and the students learned from it. Forming a well selected database of appropriate film clips is a next step in the project. The software has been presented in language teaching conferences (Papadakis and Sokoli, 2004) but like all educational software, its real assessment will only come from the students.

The software has been built with the example of Spanish to Greek subtitling, based on work by one of the authors (see Sokoli, 2004). Currently LvS environment can be set to Greek, English, French, Spanish, Italian or German. Extending the tool to use any other modern language for which films are abundant is straightforward. In Greece, film subtitling is standard practice and dubbing is an exception used only for films for young children[1] or TV shows for people who cannot read. It is an interesting question, how *Learning via Subtitling* will be received in cultures where dubbing films is the predominant practice.

In concluding, Learning via Subtitling, is an example of a learning activity based on a simulation of a professional environment. Working in a professional environment usually makes for very good training, but is not always a good ground for education, unless the designers of the educational activities have very clearly in mind that the purpose is not learning or doing the professional task but learning from its side effects. Learner's versions of professional tools[2] need careful design; "ease of use" is not always called for. In production, the less skill needed to arrive at a given result, the better. If we can obtain a well-aligned page of text by pressing a button rather than through the hard work of an experienced human typesetter, we have a better production process. In education the situation is reversed (Hadzilacos, 2003). The goal is the skill itself, not the result of applying it. An electronic speller clearly facilitates producing better spelled documents but may hinder learning how to spell! Thus, although an on-line Spanish dictionary could be a good educational resource for *Learning via Subtitling,* a Spanish-to-Greek one would probably be the wrong tool to add in this case (as opposed to the professional environment where it would be rather expedient).

Many stress the need for ICT tools in education. We hope that *Learning via Subtitling* underlines the opportunity.

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[1] When the "Lion King" was on Greek theaters, both a subtitled and a dubbed version circulated. Dubbed versions are considered "inferior" and Greeks with the slightest knowledge of the original language prefer subtitling to dubbing.
[2] Not for learning the professional task but for its side effects.