

The CLIL Virtual Tour

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Abstract

The "CLIL Virtual Tour" project ran from October 2007 to April 2008. It involved 20 students of the 5th forms of the Liceo Tecnologico in Pavia, as well as their teachers of English, Art, History and Science. The basic idea of this activity lies in the research, selection, organization and final editing of materials found on the Internet. The colleagues of Art, History and Science outlined the topics of their syllabus for the second term to the students who, in pairs, each chose an Art topic, a History topic or a Science topic. Their task was to find English sites on the Internet which dealt with those topics. After collecting the materials, the students selected the parts they thought most suitable to the task and then put all the finished materials onto a CD and in a thick booklet. All the materials were presented at the "esame di maturità" (final exam).

The evaluation was interesting. The students had to demonstrate that they had learnt the content and the concepts of their Art, History and Science syllabus as if they had studied them in Italian. For this reason all the students were interviewed by the content teachers to find out their knowledge and competence. Most of the students proved to have learnt the topics studied in English in a very satisfactory way.

Key words: multimodality, virtual reality, text, select, learn.

Résumé

Le projet "Tour virtuel EMILE" s'est développé depuis octobre 2007 jusqu'à avril 2008. Il a compté avec la participation de 20 lycéens du Lycée Technologique de Pavie (Italie) ainsi que de leurs enseignants d'Anglais, Art, Histoire et Sciences. Cette activité consiste, fondamentalement, dans la recherche, la sélection, l'organisation et la publication de matériels didactiques qui sont à présent disponible sur Internet. Les enseignants d'Art, Histoire et Sciences ont présenté les sujets de leur programme du deuxième quadrimestre aux élèves qui, par groupes de deux, ont choisi un de ces sujets. Leur tâche était de trouver des sites anglais sur Internet concernant ces sujets. Après

avoir réuni les matériels, les élèves ont sélectionné les parties qui leur semblaient répondre davantage à leur but, les ont organisées dans un parcours logique et les ont mises dans un CD et dans un dossier en papier. Tous ces matériels se sont présentés à l'examen de baccalauréat.

L'évaluation a été intéressante. Les élèves ont dû montrer qu'ils avaient appris les contenus et les concepts d'Art, Histoire et Sciences comme s'ils avaient appris ces sujets en Italien ; en effet, ils ont été interrogés par les enseignants de discipline qui ont évalué leurs connaissances et compétences. La plupart des élèves ont montré qu'ils avaient appris en anglais ces sujets de façon satisfaisante.

Mots-clés: réalité virtuelle, sélection, textes, interactive, expérimenter.

1. Introduction

This article will be based mainly on “work-and-search” carried out by my fifth-year Liceo students. First, the concepts of multimodality and virtual reality were explained to the students. We thought it was of basic importance to ensure that students could understand the organization, layout and hypertextuality of a website.

2. Multimodal interaction

Multimodality harmoniously combines the different methods of communication between man and machine. To enter information, a user can use voice, writing and gesture. To reproduce information, the system uses icons, text, sound and voice. The possibilities for multimodal interaction are varied. For some applications, it will be sufficient to provide sequential multimodality, making it possible to switch over from one mode to another during the course of one and the same operation. The user can then choose the mode most suited to each interaction context. For example, users accessing a voice server for meteorological information might prefer to indicate the required region by clicking on a map; however, they might also prefer to reply by voice if the system asks them whether they wish to know the forecast for the next day (yes or no).

Other applications may benefit from combined multimodality, which can be used to combine information from two (or more) input or output modalities. This type of multimodality may greatly improve the efficiency of the interaction. This is what happens in Virtual Reality and VIRTUAL TOURS in particular.

Virtual Reality is a very powerful and compelling technology which aims to mimic the real world by using computer-generated environments and engaging all the perceptive faculties.

With advanced human-computer interfaces and emulation systems, a new virtual world is maturing day by day with various applications, such as digital heritage, training simulations, digital carving, virtual concerts and so on. Compared with traditional graphics, virtual reality highlights the interaction between user and system, i.e. users may enter and experience the digital environment in real-time, feeling as if they were actually there. So, a virtual tour is always an active and challenging topic of VR that needs to be investigated.

A **Virtual Tour** (or **Virtual Reality Tour**) is a digital (often online) tour of a location (actual or fictional) consisting of images and other media in varying degrees. Tours are often made up of digital photographs, panoramas, written text, and even sounds. Generally, a virtual tour is designed to evoke the sense of moving or walking through the location, again, to varying degrees.

3. And now three definitions: web page, cluster and hypertext pathway

A **web page** is a visual-spatial unit displayed on a computer screen. It makes use of written resources such as language and the resources of depiction, including the spatial juxtaposition of objects. In this respect, a web page is similar to a printed page. However, the web page goes beyond the printed page because of its hypertextual nature and the action potential that this affords. The web page has screen-like properties and can be seen as a dynamic and interactive interface between the computer user and the possibilities of the website as a whole. The web page enables the user to make links with other objects, other web pages and other websites. The computer user therefore enters into an active relationship with the visual screen world that is created by his or her interactions with the web page. The computer user enters an active relationship with the screen world and its objects (Baldry & Thibault 2006).

The web page is also a text. According to Halliday “[...] any instance of living language that is playing some part in a context of situation, we shall call a text.” (Halliday 1989). A web page can be considered a macro-text, a unit made up of different elements: visual and spatial resources and objects and language.

The organization of objects on a web page and their relationship lead me to the definition of the concept of **cluster**. Identifying multimodal clusters is particularly useful when describing multimodal texts. Clusters can be considered meaning-making units (Baldry 2005). It is the cluster and the relationships between clusters that make meaning in a specific context. Clusters refer to a local grouping of items. The items in a cluster are functionally related both to each other and to the whole to which they belong as parts.

Clusters of items and objects on a web page are small-scale arrangements of items which are nested within larger wholes. Some clusters or some items in some clusters may move while others may remain inanimate.

A **hypertext pathway** collects different semiotic modalities and genres, activities and meanings along the *meaning-making trajectory* created when users of websites create links from one web page to another (Lemke 2000; Baldry & Thibault 2006). The trajectory is the trace of the progressive integration over time of the meaning-making resources the user encounters (Lemke 2000; Baldry & Thibault 2006).

4. After explaining these concepts the students started their search

The “CLIL Virtual Tour” project ran from October 2007 to April 2008. It involved 20 students of the 5th forms of the Liceo Tecnologico in Pavia, as well as their teachers of English, Art, History and Science. The basic idea behind this activity lies in the search for, selection, organization and final editing of materials found on the Internet. The colleagues of Art, History and Science outlined the topics of their syllabus for the second term to the students who, in pairs, chose an Art topic, a History topic or a Science topic. Their task was to find English sites on the Internet which dealt with their chosen topics. After collecting the materials, the students selected the parts they thought most suitable to the task and then put all the finished materials onto a CD and in a thick booklet. All the materials were presented at the *esame di maturità* (final exam).

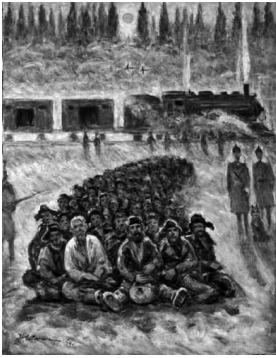
The evaluation was interesting. The students had to prove they had learnt the content and the concepts of their Art, History and Science syllabus as if they had studied them in Italian. For this reason all the students were interviewed by the content teachers to discover the extent of their

knowledge and competence. Most of the students demonstrated they had learnt the topics studied in English in a very satisfactory way. Here are some examples of their production.

4.1. History: The Russian Gulag

Although Gulag was originally the name of the Soviet government agency responsible for managing the labour camps, the word also acquired the meaning of the system of Soviet prison based on free labour, including labour camps, punishment camps, criminal and political camps, women- and children-specific camps and transit camps.

Figure 1 & 2



There were at least 476 separate camp complexes, each one comprising hundreds, even thousands of individual camps. It is estimated that there may have been up to 5-7 million prisoners in these camps at any one time. It is possible that approximately 10 % of prisoners died each year. Probably the worst of the camp complexes were the three built north of the Arctic Circle at Kolyma, Norilsk and Vorkuta.

After World War II the number of inmates in prison camps and colonies again rose sharply, reaching approximately 2.5 million people by the early 1950s (about 1.7 million of whom were in camps).

4.2. Science: Inside the Earth

Figure 3



Figure 4.



In Ancient Greece this place was considered Hade's kingdom, the God of dead souls, where he reigned with his five-headed dog, Cerberus.

Figure 5. Dante's conical hole

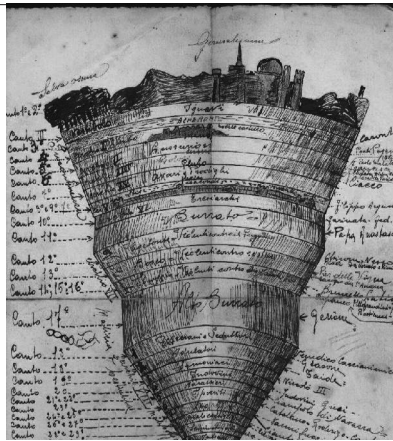
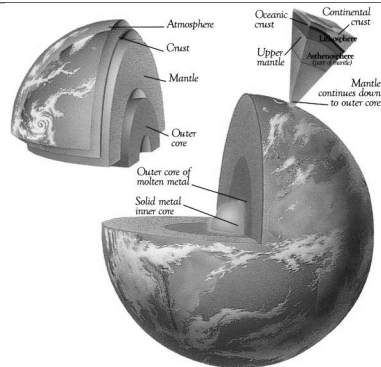


Figure 6.



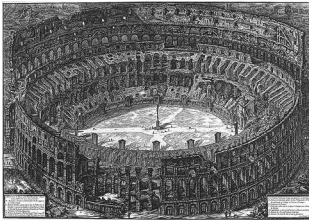
The internal organization of the materials that make up our planet provides a structure with concentric shells. These concentric shells are delimited by discontinuity areas representing the separation between areas where the materials have very different physical and chemical characteristics.

Studies on Earth formation have pointed out that these layers were formed in the early stages of the geological history of our planet, the original mass of melted material, gradually began to cool down, with the heavier elements falling under gravity to the center while the lighter ones were brought to the surface.

4.3. History of the Grand Tour

According to the Oxford English Dictionary, the first recorded use of the term (perhaps its introduction to English) was by Richard Lassels in his book *An Italian Voyage* (1670).

Figures 7 & 8.



Beginning in the late sixteenth century, it became fashionable for young aristocrats to visit Paris, Venice, Florence, and above all Rome, to study the classical ruins, with perhaps a visit to Naples for music, and to appreciate the recently discovered archaeological sites of Herculaneum and Pompeii and for the adventurous a thrilling ascent of Mount Vesuvius as the culmination of their classical education. Thus was born the idea of the Grand Tour, a practice which introduced Englishmen, Germans, Scandinavians, and also Americans to the art and culture of France and Italy for the next 300 years.

4.4. Art: Futurism

Figure 9. Antonio Sant'Elia (Como, 1888 – 1916).



Considered the archetypal exponent of Futurist architecture right up to the end of the nineteen-thirties even though he was by no means the only one. The megalopolitan visions of Sant'Elia are still a constant ideal point of reference within modern and avant-garde Italian architecture. He

created his “New Town” between 1913 and 1914. In 1914 he signed the *Manifesto dell’architettura futurista*, joining the futurist movement

Figure 10. Drawing from La Citta Nuova by Sant’Elia, 1914

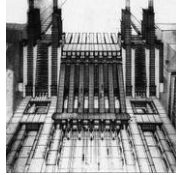


Figure 11. Metropolis, the film (1927) and Antonio Sant’Elia’s city



It is hard to look at the “New City” Drawings and not think of the remarkable sets of Fritz Lang’s great film “Metropolis”

Figure 12. New city, picture 1914



5. Conclusion

In this experience we have seen that the language is used to support content learning. It enhances cognitive processes (Maggi, Mariotti & Pavesi 2002) by triggering mental processes. Moreover,

what I found more interesting is that through this project all the students had the possibility of extending and developing some basic thinking skills (Marsh & Langé 1999) such as: analysing, evaluating, justifying, deducing, hypothesising, comparing and contrasting. In fact they were divided into small groups and the students (two or three) inside each group had to share information, compare ideas, divide the tasks, reach an agreement on the useful materials found and make decisions on the final editing. In the final evaluation questionnaire some students pointed out that the most difficult task for them was the organization inside the group (who had to do what). But through discussion and exchanging ideas it was possible to find an agreement, and after that the work proceeded smoothly. Another difficult point was selecting the materials. The students found a wealth of information and collected it, but the problem was organizing the materials for the final text. The solution was to make a list of the main points of the topic to be developed and the choice of the materials came after that analysis. The editing was not easy mainly due to language problems, but in the end the result was satisfactory.

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