CORELL: Computer Resources for Language Learning

Issue 2, 2008

A refereed international online journal of research on computer resources in foreign language learning

ISSN: 1988-1746
MONOGRAPH

CIBERTAAAL: An Ecological Perspective of Cybergens in Autonomous Language Learning
Action Research and Autonomous Language Learning in the Age of Cybergenres

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Principles of strategy should be taught which make it possible for risks, the unexpected and the unknown to be tackled and development to be modified depending on the information acquired along the way. We need to learn to sail in an ocean of uncertainties through archipelagos of certainties.

Edgar Morin, 1999

Abstract. In this special issue of CORELL, we will outline the current positions of our research group GIAPEL with regard to the multidimensional transformation that the ICT (Information and Communication Technologies) exert on the three vertices of the classical didactic triangle, that is the interaction between learners, teacher and content We will also be looking at how the group approaches the new problems that arise in the field of educational mediation and action research in the teaching-learning of languages, which is seen as a dialogue between teachers and learners as subjects and agents of social practices within a particular context.

Keywords: action research, mediation, cybergenres, ecological approach, autonomy

1. Introduction: The new complexity of the didactic triangle

Today, there are many different sources of information and guidance available and as a result the role of teacher or counsellor is no longer restricted to a single figure. In addition, the introduction of consulting and guidance, within the framework of virtual classrooms or by means of the more ‘conventional’ e-mail, represents a new challenge for strategies guiding educational mediation, which is seen as a process of ‘scaffolding’ the aim of which is to help the student to reach progressively higher levels of independence. Another of the vertices of the didactic triangle that has become more complex is the one consisting of the interaction among the students themselves, which offers renewed possibilities both for spontaneous communication and for cooperative (peer mediation and support) and collaborative learning (shared tasks). Finally, authentic materials, which play a key role in a socio-constructivist and autonomising approach to language learning, have not only grown exponentially but also, because of their hypertextual mode of working, open up a new intercultural, multimodal and transgeneric dimension of the social practices of reading and producing texts. In the teaching-

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1 Although far from exhaustive, the bibliographic references of the GIAPEL members do constitute examples of the path the group has trod and are included in footnotes.

2 This research has been financed by project HUM2005-05548/FILO of the Spanish “Ministerio de Educación y Ciencia”.

3 Group for Research and Pedagogic Applications to Languages (Grupo de Investigación y Aplicaciones Pedagógicas en Lenguas) http://www.giapel.uji.es


learning of languages texts have always constituted, from a psychopragmatic point of view, the terrain in which the linguistic experience, as a process of interactive construction and negotiation of meaning, takes place. Nowadays, the construction of this common field of reference (Riley, 1987), which is the basis of educational dialogue, has become even more complex due to the advent of cybergenres.

2. The epistemological construction of the field of research

Our group, which came into being in 1991 as a multilingual group interested in language learning from a perspective of training in plurilingualism and autonomy, has been working continuously on studies related with learning styles and the cognitive and pragmatic strategies involved in the process of acquiring, learning and using second languages. The epistemological foundations that guide our research activities have their roots in a three-faceted domain, given that the field in which our thinking and our actions take place is the product of the intersection of linguistic, cognitive and pedagogical aspects.

Our approach to linguistic phenomena is guided by discursive and textual criteria, because text types and genre variations constitute the pragmatic and cognitive frameworks that are taken as a reference for constantly negotiating linguistic interactions, which are contextually bounded social practices. From a psychological point of view, our interest in the cognitive frameworks and cognitive strategies employed by language learners is related to the socio-constructivist theories of Vygotsky (1984) and Bruner (1990), and to Ausubel’s (1976) meaningful learning. The construction of meaningful knowledge takes place thanks to social mediation and constitutes a process of interiorising experience that allows new conceptual networks and new frameworks of knowledge to be built. As pointed out by Vygotsky, in this process of social mediation language plays a key role (Vygotsky, 1994) both in teaching-learning interaction (among peers and with the teacher) and in the process of interiorising knowledge through metalanguage. Meaningful learning entails the development of the awareness of learning itself and leads to longer-lasting retention of information. This occurs because, as fresh networks are formed between new and previous knowledge, the latest information is stored in long-term memory and it can be retrieved later on. One important aspect of meaningful knowledge is that it plays a heuristic role for the learner, that is, it becomes an instrument for collecting and processing new experiences and information (Piaget, 1983; Schank and Abelson, 1977; Bronckart, 1985, 1996; Bruner, 1984, 1990). Finally, the importance of motivational and emotional aspects must also been taken into account.

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6 In this respect, the Common European Framework of Reference for Teaching Languages in Europe makes an interesting distinction. Multilingualism is an observable social fact, whereas plurilingualism refers to individuals. The latter constitutes a specific competence that results from an integrated representation of languages. One key dimension of plurilingual competence is intercultural mediation competence.


account, since meaningful learning is necessarily active and personal and depends on the learners’ assimilating learning activities and on their cognitive resources. Obviously, from an educational point of view, everything discussed up till now constitutes the foundation of an integrating approach towards the teaching-learning of different languages that is oriented towards long-time learning. In other words, the methodology behind the teaching-learning activities must promote the development of the learner's autonomy because language learning is a life-long process and one that students will have to later pursue on their own. The languages that have been learnt do not work as watertight compartments but instead the bilingual or plurilingual individual is, in fact, a meeting place of all the languages he or she is learning and has acquired (Weinreich, 1964).

Making a research group’s epistemological foundations explicit is relevant because the teachers’ thoughts do not make up just a theoretical referent whose importance has been acknowledged by research, but rather they also constitute an action principle that influences professional behaviour. If the activity of teachers as educators and as researchers requires constantly questioning the concepts, beliefs and filters that they use to interpret the practice in a particular context, only the development of their practical awareness can constitute the key to their training and their growth as ‘autonomous’ teachers and as researchers. This conception of self-training through action research forms a coherent whole with an epistemology of language teaching based on a dialogism between the object and the subject of the research (Puren, 1998).

Investigating how students formulate operative rules, establish analogies and inferences, and schematise linguistic experience allows the teacher to address teaching strategies that help to develop students’ spontaneous knowledge by relaunching it through richer and more complex systematic representations. Research on learning and on teaching and support strategies is action research and this means that what is valid for the language student’s learning process is equally valid for the researcher's learning process (Villanueva, 2000; Breen, 2001). The origin of this conception of the teacher’s or adviser’s role as a researcher obviously has its roots in Vygotsky’s and Bruner’s mediation theory (Vygotsky, 1962, 1979; Bruner, 1984), which places great importance on the function of awareness and thinking, on human beings’ capacity to become aware of what they are doing and to go back over a schema of their own in order to reorganise knowledge. This capacity is not self-centred, rather, it is favoured by communication and interaction, and this is what we hope will happen in the cooperative and collaborative relationship of our research group, GIAPEL.

In the age of cybergenres, action research applied to the development of autonomy in language learning has several important implications:

- the need to research on the new discursive practices on the Web and the characteristics of cybergenres as new frameworks of social communication
- the importance of taking into account the representations of students as agents of the new discursive practices related to hypertextual forms of communication
- incorporation of the new literacies of understanding and producing texts into the autonomous learning of second languages
- changes in and multiplication of the forms of educational mediation and the challenges that this represents for the development of autonomy
- multiplication of the forms of peer communication and of collaborative learning

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3. The ecological perspective of cybergenres in autonomous language learning

The diversity of research that is conducted in the field of discourse genres covers a range of dimensions that could be summed up using Rastier's definition, according to which genres are at the same time: genetic norms about how a text is produced, mimetic norms that guarantee a representation and reproduction function, and hermeneutical norms that allow a text to be interpreted (Rastier, 2001). The question of discursive genres has evolved over the last few decades from a taxonomical conception to a dynamic and interactive conception that places more special emphasis on gradual evolution thanks to the interaction among writers, readers and contexts (Devitt, 1993; Berkenkotter and Huckin, 1995; Santini, 2006). Jean-Michel Adam speaks in the same line when, in order to address the problem of the typology of genres, he suggests setting out from the heterogeneity of discursive facts, on the one hand, and from a gradual logic based on the theory of prototypes, on the other (Adam, 2001). A gradual approach will make it possible to explain why a text is more or less typical or atypical from a genre point of view depending on whether it approaches or is further removed from the notional prototype of reference. It is important not to confuse notional prototype with effective realised text, since a text is always, to a greater or lesser extent, a typical example of a category.

From our point of view, the gradual theory of genre prototypes must integrate itself within a pragmatic approach that takes into account the social and historical dimension of discursive phenomena. Genres are not timeless categories, but instead historical realities that are inseparable from the societies in which they occur and they correspond to ritualised social activities (Maingueneau, 1991).

In the chapter “Theorising about genre and cybergenre” in this special edition we will take an in-depth look at the origins and the evolution of the concept of discourse genre and we will also pinpoint more precisely the stances of our research group. For the time being, we will utilise the following criteria: a) admit the huge variety of genre realisations; b) recognise that the limits between genres are often fuzzy, because it must be borne in mind that the interest of prototypical definition does not lie in excluding dubious cases but instead in allowing relations to be established among bundles of similar or related phenomena; c) establish the regulatory and regulating nature of genres with regard to discursive practices (Bajtin, 1989: 50-63) and d) recognise the flexibility of the textual organisation of genre realisations, which is related to the contexts of use, to action and to argumentative orientation.

The notion of ecology applied to discourse genres makes it possible to stress their dynamic and interactive nature, which is precisely what accounts for their production, reproduction and modification. Genres are interrelated and form a system within the context of social practices of a community in a particular moment in history:

Genres tend to be linked or networked together in a way that constitutes a coordinated communicative process (e.g. a conference may start with a call for proposals, followed by abstracts and concluded with papers). Such a cluster forms a genre system and is useful for studying the interaction between people in a community (Orlikowski & Yates, 1998 http://ccs.mit.edu/papers/CCSWP205/).

In the case of cybergenres, hypertext technology and multimodality make the boundaries between genres even more blurred.12 There are new, emergent genres as well as variations on

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old or pre-existing genres whose evolution is triggered both by new social practices (forums, chat sessions, blogs, etc.) and by the new possibilities offered by the medium. From the point of view of language learning, we are now interested in focusing our attention on a phenomenon of hypertextual writing that again broadens the interactive dimension that is inherent to the processes of production and reading. Even though it is true that author and reader have always co-participated in producing meaning in a text, hypertextual writing opens up the door to a whole new dimension in writing and reading in which the concepts of writer and reader cannot be opposed. George Landow (1992: 5-6), who bases himself on Roland Barthes’s ideas about “le lisible et le scriptible”, claims that the new electronic textuality makes it possible to bring about a fusion of instances of production and of reception into a new combination that he calls a “wreader”, which is a blend of the terms “writer” and “reader”.

Indeed, the cognitive work involved in reading a hypertext means anticipating what will come after the hypertext link, as well as the creation of a semantically coherent reading product that will be the result of assembling the different fragments or “chunks” of information, i.e. large units of information that are connected by hyperlinks, which correspond to Barthes’s (1970) concept of “lexias”, later taken up again by Lemke (2003). All this, which is constructed by the reader-writer, is the result of semantic opening and closing operations performed thanks to having established different links among the texts, depending on the options that are selected while navigating through the text. This new transgeneric reality is included by Lemke in his formulation of the notion of “traversals” as routes followed by the reader-navigator through meaningful units of texts at different scales (Lemke, 2003). The same author claims that, today, genres have become the raw material for flexible transgeneric constructions. He also relates the notion of traversals with a new “ecosocial” and cultural phenomenon that would represent the evolution of the standard concept of genre:

Traversals are temporal-experiential linkings, sequences, and catenations of meaningful elements that deliberately or accidentally, but radically, cross genre boundaries. A traversal is a traversal across standardized genres, themes, types, practices, or activities that nevertheless creates at least an ephemeral or idiotypical meaning for its human participants, and represents at least a temporarily functional connection or relationship among all its constituent processes and their participants (i.e. actants). I believe that traversals are becoming a particularly significant ecosocial and natural-cultural phenomenon in this period of world history, the late 20th and the 21st century, in the same sense in which genres and standardization became particularly significant in the high modern era of the 19th and early 20th centuries. (Lemke Towards a Theory of Traversals http://academic.brooklyn.cuny.edu/education/jlemke/papers/traversals/traversal-theory.htm)

In the “age of traversals” the construction of meaning in the routes is performed on shorter textual and time scales. Readers build meanings through the links by evoking or receiving the echo of a complete conventional genre but, by passing through a particular link, they can also evoke a generic sequence either from a genre that is familiar to them or from a functional unit of a known genre. Switching from one genre to another and constructing socio-cognitive schemata that relate certain lexias with certain interiorised generic schemas are therefore the basis of hypertextual reading. The new genres perhaps correspond, as pointed out by Lemke, to partial schemas for building scaffoldings that allow meaning to be constructed by making

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13 This notion of the “wreader” has been employed anew by French and Canadian researchers (Bachand, 2000; Bernier, 1998; Ertzscheid, 2003) and has sometimes been translated as “laucteur” (Bernier, 1998).
meaningful leaps among thematic contents, attitudes, points of view or text organisation structures. The new schemas or generic models would be cohesive chains as well as multivariate structures. “Every text animates the ghosts or the echoes of other texts” (Lemke, 2003), which makes dialogism and intertextuality key notions in the new age of textual hybridisation.

Intertextuality is usually understood to mean the inevitable presence in texts of material that has already been written and said in other texts, beyond actually quoting fragments. All texts are constructed as a mosaic of quotes from other texts. And all texts are a palimpsest on which the prints left by previous writings can still be seen (Barthes, 1970; Genette, 1982); to interpret a text is therefore to discover the networks that link it with other texts, i.e. its intertextual relations. The development of critical reading necessarily goes hand in hand with the capacity to uncover the intertextual relations of a text (Foucault, 1969). With respect to cybergenres, it has to be borne in mind that the intertextual relations among the genres are of the order of writing and reading (Finnemann, 1999, 2005), that is, intertextual relations are established by goal-based actions.

Language-learning autonomy and the capacity to access information in a meaningful way are linked to the capacity for critical reading, understood as meaning that which is able to uncover the intertextual and intergeneric relations in the text. The development of these competencies has to take into account an actional and interactive perspective, since students’ linguistic and cognitive development takes place through social practice and action, which are understood as being the learning interactions within the academic context and the vast number of possibilities for communicative exchange that the Web has to offer. From the point of view of the development of autonomous language-learning skills, in the age of cybergenres, the empowerment of learners necessarily involves acquiring new literacies and new interactive cognitive, metacognitive and metalinguistic skills that enable them to manage information and evaluate it critically so that they can navigate their way around the web in a meaningful fashion. Within this new communicative context, it is important not to forget the importance of encouraging attitudes related with interculturality, because the democratisation and globalisation of information coexist with an assortment of ways of gaining access to it that are determined by social and cultural factors. Turning information into knowledge and incorporating it into learning and training plans means that the development of autonomy and critical thinking are inseparable aspects.

This is the approach that guides the aims of the CIBERTAAAL Project, which is outlined in this special issue and which ends in December 2008.
4. CIBERTAAAL: an action research project

4.1. Hypotheses, objectives and methodology

This project is the result of the convergence of the different lines of research that our group has been working on since it began in 1991. In tune with the socio-constructivist approach that has been outlined above, we set out from the hypothesis that the textual and discursive competence that pupils have in at least one language constitutes prior knowledge that can be made operative, thus making it shift from a state of spontaneous-intuitive knowledge to reflexive instrumental knowledge (Cummins, 1991; Bialystok, 1991; Ludi, 1999). Applying this methodological orientation to virtual communication environments and, more particularly, to the exchange of information via the Internet means investigating the presence of the already-existing genres and the possible appearance of new genres (cybergenres), genre variations or generic constructions at different scales in reading and writing digital texts. Genres are the meeting point for pragmatic and cognitive representations, and reflect a balance point between divergence and the renegotiation of change, beyond which understanding would become impossible. We might say that recognition of the generic echoes in texts constitutes the border of our *semiosphere* (Lotman, 1996).

The incorporation of the new technologies into all aspects of our lives, including language learning, opens up new lines of research on the mediating role of generic schemas. Hypertextual technology has multiplied the semiotic possibilities of texts and images to the point where the new multimedia technological resources have become such an inherent part of the organisation and the structure of digital texts that they no longer work as just texts but also as media in themselves (Askehave and Nielsen, 2005). The numerous possible routes and the interpretation of multimodality (Kress, 2004), as integral parts of the coherence of texts, appear as new phenomena to be taken into account when it comes to researching on the evolution of generic schemas. Hypertextual writing allows for rhizome-based constructions that offer the internaut a number of options and routes within the same website and among different sites. The following are some of the questions that arise:

- Can we speak of cybergenres as *novel* or *extant* genres (Shepherd and Watters, 1998)?
- Are we talking about what Crowston and Williams (1997) called “reproduced and emergent genres”?
- How can genres act as the raw material for new transgeneric constructions in the new socio-semiotic practices (Lemke, 2003)?

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14Cibergéneros y Tecnologías Aplicadas a la Autonomía de Aprendizaje de Lenguas (Cybergenres and Technologies Applied to Language-Learning Autonomy). Estudio de las estrategias y de los modelos pragmático-cognitivos en la producción y en la recepción de los textos digitales (A study on strategies and pragmatic-cognitive models in the production and reception of digital texts). A Spanish Ministry of Education and Science R&D project. Reference: HUM2005-05548/FILO. This project has been partially reported in different works published by GIAPEL.


• How do cybergenres activate the echoes of genres that are known to the reader, and what semiotic strategies are used by the new elements of textual coherence to shape themselves as interpretative schemes for future readings?
• How do readers construct meaning and sense in their pathways as they navigate their way through hypertexts?

The three phases of the research carried out by CIBERTAAAL address these questions on three planes, which intersect to form the field of investigation: a) **linguistic aspects** of digital texts: description and analysis of genericity, multimodality and hypertextuality; b) **psycholinguistic plane**: the study of strategies used by students for tracking, navigating and reading, and their metacognitive evaluation as regards the activities performed (understanding, genre identification, use and navigating); c) **methodological aspects and didactic proposals** related with actional learning: types of webquests and the design of cybertasks.

The original aims of CIBERTAAAL (2005) and the initial description of the tasks associated with each of these aims were as follows:

1. **To conduct applied linguistic research on the generic, micro- and macro-textual characteristics of digital texts, which entails:**
   1.1 *Building up a corpus of digital texts in English, French and German.*
   1.2 *Producing a generic description of electronic format texts included in the corpora that have been compiled*, while establishing criteria for their generic characterisation at both the macro-textual (structure and rhetorical movements) and micro-textual levels (use of lexical-grammatical resources, modality, connectors, and so forth). Analysing the semiotic and functional value of multimodality.

2. **To carry out a qualitative psycholinguistic study of cognitive and pragmatic strategies** by means of experiments conducted with students from the Universitat Jaume I (UJI), the Universidad de Castilla la Mancha (UCLM), the Universidad de Zaragoza (UNIZAR) and from the Universidad Católica San Antonio de Murcia (UCAM).
   2.1 To identify and to mobilise the generic schemas of reception by using tests that enable us to determine whether students can recognise the genre that the different texts in the corpus belong to.
   2.2 To analyse the pragmatic and cognitive strategies for receiving texts by collecting data using a computer program that will take the use of hypertext links into account.
   2.3 To conduct semi-structured interviews, recorded on a digital camcorder, in order to complete the data about the case study.
   2.4 To draw conclusions from 2.1, 2.2 and 2.3 and to establish criteria about the production and reception of digital texts in order to improve communication.

3. **To produce didactic applications for developing autonomous skills for reading digital texts in a foreign language (English, French, German): to carry out a critical assessment of the existing proposals for Webquests and to draw up criteria for designing cybertasks that make it possible to develop new literacies applied to autonomous language learning.**

With regard to the methodology, during the course of the project analysis instruments had to be developed to be able to conduct the research. In order to analyse the architecture of websites, different tools have been used, including the editor *yEd Graph* and *C-map*, which enabled us to describe a series of models of hypertextual writing that are rhizome-based to varying degrees (that is to say, they are open to interconnections with other websites to greater
or lesser extents) and which have different types of modularity. Producing C-maps enabled us to systematise observation of the functioning of internal and external, generic (they appear on all the pages of the website) and semi-generic links (they appear on all the pages at a certain level), actions performed (searching, purchasing, subscribing, and so on) and, when applicable, the intrapage commands.

In order to carry out the experimental phase, Cybertasks were designed in the different languages and the experiments were performed at the participating universities in accordance with a unified protocol that included the following instruments: an observational questionnaire for the researchers; a test to determine the level of linguistic competencies; a test for identifying learning styles; and a self-assessment questionnaire with open and multiple choice questions. This enabled us to obtain data about:

- the functioning of generic schemas and their metalinguistic "tagging" in text recognition
- the representation of the aims of the cybertask, the methodology used to reach the goals that were set, and students’ self-assessment of the process and the result
- the mechanisms for anticipating the destination of the links and in the communication among peers and with the teacher
- the spontaneous metalanguage used by students
- the presence of multilingualism and students’ attitude towards plurilingualism

To make it easier to read the results that will be presented in the different chapters of this special issue of Corell, all these instruments are included in an ANNEX.

Data on the navigating done by students were obtained by means of a tracking program that allowed us to collect information about:

- The actual navigating carried out
- The modes of interacting with the texts employed by students: browsing, navigating, reading
- The use of multimodality and following different routes, depending on cognitive styles

The information obtained in the experimental phase will enable us to present, in the last section of this special issue, a number of conclusions regarding:

- the diversity of meaningful routes (traversals) followed by students. This will be achieved by combining the data from navigating, the results from the questionnaires and tests, and the result of the tasks
- the relation between the reading and navigating modes, and learning styles
- the relation between the reading and navigating modes, and levels of linguistic competence
- the degree of competence in utilising the ICT and modes of navigation
- the capacity to use different sources of information and integrate them in order to resolve a task, and students' own perception of this competence
- the relation between the degrees of field dependence/independence and the navigating modes. We define field dependence as the perception of information restricted to its mode of presentation. In contrast, field independence is a capacity to perceive information in terms of relevant features that may be related with other knowledge and other contexts
• the relation between the degrees of field dependence / independence and the results from the assessment questionnaires.

4.2. The structure of this special issue

After this first section entitled “1. Action Research and Autonomous Language Learning in the age of cybergenres”, which is devoted to presenting and contextualising the project, the other chapters will address the following issues:

2. Theorising about genre and cybergenre: the state of the art of the problems involved in discursive genres from the theories of Bajtin, Volochinov and Todorov up to the current debate about Web genres and their evolution.

3. Webtasks in the Cyberage: a reflection on the evolution of the task-based approach and a review of the current proposals that will enable us to put forward criteria for designing Cybertasks that incorporate the new literacies in the development of learning autonomy.

4. Graph software and the description of Website architecture. Information flows and cognitive models: a presentation of the computer programs used in this project and some thoughts about their usefulness for establishing cognitive models from data about navigation.

5. Critical approach to multiliteracy: Automates Intelligents: the analysis of a complex website with a rhizome-based structure is compared with the results of students' navigation in order to carry out a cybertask in which they have to read different sources of information on different websites. The results and the discussion address, among other topics, the problem students have with representing tasks.

6. Functional approach to multiliteracy: Cyberjournalism a cybertask in which the results and the discussion address generic aspects of digital journalism and the reading done by students.

7. Building professional awareness in the Cyberage: The world of professional translation and interpreting in Germany: the presentation of a task in which the results and the discussion emphasise both the importance of contextualising the tasks within a social practice that the student finds relevant and the implications this has for a pragmatic reading based on searching for information for specific purpose. The repercussions that this kind of approach can have on the modes of navigation and on students’ self-assessment are also analysed. Likewise, the strategies that characterise a field independent cognitive style are also evaluated.


References

A- Psychopragmatic and generic foundation


15 These are what can be considered to be essential bibliographical references for contextualising the epistemological foundations of the GIAPEL group


### B- Psychology of learning and psycholinguistics. Socio-constructivism and Pedagogy of action


*Vygotsky, cincuenta años después. Infancia y Aprendizaje* nº 27-28, 1984


**C- Conception of autonomy and action research**

Benson, Ph. (2001): Teaching and researching autonomy in language learning, Longman


**D- Hypertext, Cybergenres, Intertextuality**


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17 Idem Note 14

18 To be completed in the different articles that make up this special issue.


Theorizing about Genre and Cybergenre

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Abstract
The present paper provides an overview of several approaches and definitions of the concept of genre as a means to discuss whether the defining traits of genre (particularly, its social, dynamic, functional and, in many cases, heterogeneous nature) can be applied to approach the genres afforded by the ICTs and the digital media, that is, cybergenres. Particular attention is paid to the multisemiotic and hypertextual quality of digital genres as well as to the new social practices articulated through them.

Key words
Genre, cybergenre, multiliteracy, hypertext, heterogeneity

1. Introduction

The notion of genre has been recurrently addressed in those disciplines, paradigms or approaches looking into the processes involved in human interaction (both with the world around us or with other human beings) and/or the products resulting from it (e.g. texts of diverse sorts). The reasons of this interest in genre lie both in the complexity of the concept itself as well as the diverse needs it covers. For one thing, the term genre (from French genre and Latin genus) basically means ‘kind’ or ‘sort’ and, accordingly, the notion thus referred to has always helped us cover our categorising needs —whether these concern natural entities or man-made artefacts.

Together with helping us deal with the world, our knowledge of genres is an integral part of our interpersonal abilities to the extent that, without it, knowledge of other sorts (e.g. encyclopaedic and linguistic knowledge) is insufficient for successful interaction (Maingueneau 1998; Tomasello 1999, 2003, 2008; Du Bois 2003). Not only is generic competence important in interpreting and producing texts, but it seems reasonable to claim that we acquire language in a patterned way via the various genres we are exposed to since we are born. The importance of genre as a socio-pragmatic tool has led an anthropologist like Silverstein to state that culture is intrinsically linked to genre:

Cultures are historically contingent though, as experienced, relatively perduring values and meanings implicit in the ways people do things and interact one with another. Such doings, as events, have value and meaning only insofar as they are patterned —the textually oriented word is “genred”— so that […] people in effect negotiate the way that events are plausibly and (un)problematically instances of one or more such patterns. So, culture being manifest only in such sociohistorical facts, anything “cultural” would seem to depend on the contingencies of eventhood that, in complex ways, cumulate as genred norms of “praxis” or “practice”. (Silverstein 2004: 621-622)

This socio-cultural view of genres is also shared by French scholars drawing upon Post-Marxism and Post-modern social theory (e.g. the work of Michel Foucault and Roland Barthes inter alia). Genres are described as having a dialectical relationship with the social
context where they take place, to the extent that societies can be characterised by the genres articulating and arising from them (Bronckart 1996; Maingueneau 1998). Thus, genres

constituent des moyens socio-historiquement construits pour réaliser les buts d’une action langagière; en termes marxiens, ils constituent des outils, ou encore des méga-outils, qui médiatisent l’activité des humains dans le monde. [...] L’appropriation des genres constitue dès lors un mécanisme fondamental de socialisation, d’insertion pratique dans les activités communicatives humaines. [...] c’est dans ce processus général d’appropriation des genres que se façonne la personne humaine. (Bronckart 1996: 106)

Of course, if generic competence is a powerful socialising tool, it may also be an exclusion instrument: knowing the ‘right’ genres has always helped certain people be in charge and set the norm(s); most importantly, it has helped define a concept of literacy that may well clash with what most people actually do in social interaction (Fowler et al 1979; Kress and Hodge 1979; Kress 1985; Fairclough 1989, 1992, 1995; Hodge 1990; Maingueneau 1998). Nevertheless, this somewhat negative view of genres does not mean that they are static artefacts per se or that they cannot be challenged. Thus, as Berkenkotter and Huckin (1995: 24) point out, “to be fully effective [...] genres must be flexible and dynamic, capable of modification according to the rhetorical exigencies of the situation”. Indeed, the tools and media afforded by the Information and Communication Technologies (henceforth ICTs) have not only exposed this dynamism, but have proved critical in the emergence of new ways of communicative interaction via the electronic medium (e-discourse) and the growing number of genres customised to or resulting from it (i.e., cybergenres). As a result, we are witnessing an unforeseen democratisation of discourse practices and, most importantly, a new concept of multiliteracy that arises from the multilinear, multimodal, and multisemiotic quality of the digital context, and involves new technological competences (e.g. computer expertise and web-based skills).

The present paper deals with the issues introduced above. It begins with an overview of several approaches and definitions of the concept of genre, moves on to a discussion of how the defining traits of genre may have been affected by the ICTs and whether these have given rise to cybergenres, and ends by briefly suggesting some of the implications of the new digital communication practices in language learning.

2. Defining Genre

Although generic competence is basic for discourse interaction, the notion of genre is difficult to define. A safe –albeit simple– definition might be stating that genre is a matter of text-types. The problem arises when we come to consider the basis of classification of those text-types –basis and/or parameters which keep changing from one framework to another and ultimately result in the elusiveness of the concept itself. Thus, while some scholars have defined genres according to their internal or linguistic characteristics, others have put the emphasis on the socio-pragmatic situation enacted and reflected through them. Before addressing these aspects, a brief overview of the evolution and issues dealt with by genre scholars is in order.

2.1. Contextualising genre research

The use of genre as an organising principle in textual practice and theory goes very far back in the Western tradition. Up to the mid-eighteenth century, the concept wore its original
Aristotelian brand, and was used to classify literary texts in agreement with the tripartite genre paradigm underlying the poetry-fiction-drama distinction. Posterior Classical poetics and Rhetoric expanded the Aristotelian paradigm, and started classifying literary texts according to the topics, modes, forms of argumentation, and styles characterising them.

This reductive paradigm began to be questioned in the second half of the eighteenth century alongside the emergence of new ideas overturning other disciplines and scientific paradigms, as illustrated both in literary practice (consider, for instance, the publication of mixed texts such as Sterne’s *Tristam Shandy*) and theory. Thus, from the nineteenth century onwards genre theorists drew upon the theories of evolution in Biology and incorporated notions such as interaction and environment in order to explain the existing texts and genres as well as the emergence of hybrid, new ones. However, despite the acknowledgment of texts’ evolution and hybridity, genre theory neither shed its taxonomic bias nor looked into texts outside the literary realm: more genres were taken into account, yet genre scholars remained basically interested in classifying them according to some canonical types.

The twentieth century saw a renewed interest in the concept, which had both a quantitative and qualitative impact on subsequent genre research and theory. On the one hand, disciplines such as Linguistics and Semiotics started paying attention to a notion typically ascribed to Literary Theory. As a result, scholars not only considered a larger number of genres, but also examined non-literary texts in an attempt to explain the diverse ways in which human communication is articulated. Some of the approaches to genre, nevertheless, retained the original taxonomic and regulatory bias of the notion.

These classificatory attempts may be briefly summarised as falling into two groups. On the other hand, we find those approaches where texts are classified along internal or linguistic parameters. This is the case of Longacre’s (1976, 1983) fourfold typology of texts based on temporal parameters, and Biber’s (1989) computationally-based attempts to group texts in eight categories following their linguistic plus functional traits. The second trend is more functionally-oriented, and includes approaches where modes of discourse and texts are classified according to their different purposes, topics, and text organisation –usually maintaining, with diverse degrees of variation, the four ‘classical’ rhetorical types of narration, description, exposition, and argumentation (Kinneavy 1971; Britton et al 1975).

In contrast to the aforementioned trends, the work in Linguistics and Sociology also paved the way for more descriptive and, most importantly, social views of genre. These were largely indebted to the work of the anthropologist Malinowski (1923), particularly to his notion of context of situation and its further expansion by Firth (1957), Hymes (1974), Basso (1974), Halliday (1978), and Halliday and Hasan (1985) among others, all of which started from the basic assumption that communication and textual meaning respond to contextual –hence, social– factors. Indeed, the impact of context on texts and the corresponding notion of register are critical in any functional approach after the work of MAK Halliday to the extent that sociolinguistic competence is described as relying upon knowledge of a set of registers. However, although register is closely related to genre in the functional-systemic paradigm, distinguishing between these two concepts is often problematic and has led to attempts aiming at making explicit the close links between register and genre (Martin 1985; Couture 1986; Ventola 1987; Eggins 1994; Martin and Rose 2008).

A commonly accepted view is to see genre as encompassing the several constraints which operate at the overall discourse structure, and register as the lower-level realisation of these:

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2 For a detailed account of approaches to genre and the problems in distinguishing between the concepts of genre and register, see Lee (2001).
Genres are how things get done, when language is used to accomplish them [...] the term genre is used [...] to embrace each of the linguistically realised activities which comprise so much of our culture [...] it represents at an abstract level the verbal strategies used to accomplish social purposes of many kinds. (Martin 1985: 250-251)

This social, pragmatic and purposeful view of genre was also expounded by North-American rhetoricians (Jamieson 1975; Campbell and Jamieson 1978; Miller 1984), all of which favoured a descriptive approach to genres. These are explained taking into account the action accomplished through them rather than their formal characteristics. Thus, a standard definition is that genre is a “rhetorical site, a place where rhetorical activity is directed to a particular audience for a particular purpose” and, accordingly, it is a flexible and dynamic construct “responsive to the rhetorical demands of particular situations” (Huckin 1997: 77).

This purposeful and staged quality of genre will be further reworked by John Swales in one of the most influential books in genre research, namely *Genre Analysis* (1990). Drawing upon the trends and notions briefly summarised above, Swales defines genres as determined by the action(s) they help accomplish (i.e. *communicative purpose*) and the people interacting through them (his notion of *discourse community* being closely related to Bronckart’s (1996) *formation sociolangagière*), all of which shows up in the genres’ organizational features (i.e. their rhetorical structure). Swales’s working definition of genre is that it is

[A] class of communicative events, the members of which share some set of communicative purposes. These purposes are recognised by the expert members of the parent discourse community, and thereby constitute the rationale for the genre. This rationale shapes the schematic structure of the discourse and influences and constrains choice of content and style. Communicative purpose is both a privileged criterion and one that operates to keep the scope of a genre as here conceived narrowly focused on comparable rhetorical action. In addition to purpose, exemplars of a genre exhibit various patterns of similarity in terms of structure, style, content and intended audience. (Swales 1990: 58)

In sum, genre research from the 1980s onwards has paid attention to how the formal (linguistic and organisational) features of texts realise or reflect the social factors impinging upon them –ranging from those approaches concerned with the textual/discourse practices of disciplinary communities (Dudley-Evans 1987; Swales 1990, 2004; Bhatia 1993; Devitt 1993; Flowerdew 1993; *inter alia*), to research on the way(s) in which language reflects and builds social relations of power and authority (Fowler *et al* 1979; Kress and Hodge 1979; Kress 1985/1989, 1993; Fairclough 1989, 1992, 1995; Hodge 1990).

2.2. Defining traits of genre

Genres are cultural and semiotic artefacts which provide a comprehensive model of different language uses: on the one hand, they foreground the socio-pragmatic quality of texts as well as the recurrent and patterned –automatised– character of most communicative interaction; on the other, they help explain some of the processes involved in text production and interpretation –i.e. have a cognitive dimension (Paré and Smart 1994).

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3 The view of rhetorical structure as shaped by audience and communicative goals is, nevertheless, not the sole achievement of genre scholars. Indeed, it is also one of the basic postulates of text grammarians. Thus, for instance, the starting assumption in de Beaugrande and Dressler (1981: 17) is that “structures are always the outcome of intentional operations.”
In their book *Genre knowledge in disciplinary communication*, Berkenkotter and Huckin (1997) define genre according to the following traits:

- **situatedness**: genres not only respond to and reflect contextual or situational factors, but also, and most importantly, our knowledge of genres derives from our actual participation in them (i.e. is a form of *situated cognition*);
- **community ownership**: genres respond to and reflect the conventions, epistemology and ideology of certain discourse communities;
- **duality of structure**: genres articulate social praxis and the structures derived from it, and help perpetuate these in an orderly fashion;
- **form and content**: engaging in a given genre involves knowing (a) the content or topic(s) most suitable to the genre, and (b) the lexical and structural resources that best meet the purpose(s) of the genre and the needs of those participating in it;
- **dynamism**: given their social nature, changes in society prompt changes in the genres articulating it.

A particularly critical trait of genres is *dynamism*. Thus, despite their collective and conventionalised nature, genres are often adjusted ad-hoc according to contextual factors. This is because both the discourse communities and rhetorical purposes articulated by genres are intrinsically dynamic ‘entities’ themselves –i.e., are in constant evolution and adaptation in agreement with social changes (see also Lemke’s 1999 ecosocial approach to genre). The dialectics between stability and dynamism in genres are voiced by Miller (1984), who asks

> How does a rhetorical community *operate* rhetorically? It works in part through genre [...] as the operational site of joint, reproducible social action, the nexus between private and public, singular and recurrent, micro and macro. [...] It is the inclusion of sameness and difference, of us and them, of centripetal and centrifugal impulses that makes a community rhetorical. [...] So rather than seeing community as an entity external to rhetoric, I want to see it as internal, as constructed. (Miller 1984: 74)

Genre’s combination of sameness and difference has led some scholars to discuss the conditions texts must meet in order to be regarded as belonging to a given genre. The level of genericity of texts has been addressed in different –albeit related– ways. Thus, whereas Paltridge (1995, 1997) regards genres as models or prototypes of human communication patterns, Martin (1992: 560-571) has drawn attention towards the *agnation of genres* (i.e., the kinship relationship among a number of apparently different genres): In turn, Bhatia (1999) has coined the term *genre colony* to refer to those genres which, although apparently different, share enough traits to be considered as illustrating the same social practice (e.g. reports and reviews of diverse sorts). As it is, genres’ flexible nature is best seen in texts, which in many cases show traits of various genres (Hodge 1990; Bhatia 1994, 1999; Berkenkotter and Huckin 1995; Bronckart 1996; Maingueneau 1998). In short, a common assumption in contemporary genre research is that texts –and, by default, genres– are not homogeneous entities but, rather, are the heterogeneous result/product of the diversity of voices, linguistic and iconographic signs, and generic conventions conflating in a textual locus.

One of the factors underlying texts’ dynamism and heterogeneity is *intertextuality*, that is, the relationship(s) between a text and other texts –a notion first discussed in the literary realm. Rather than regarding texts as self-sufficient artefacts, scholars describe texts as the locus where other –past and current– textual practices conflate (Culler 1976; Barthes 1977; Kristeva

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4 For a state-of-the-art article on approaches to genre, see also Gruber and Muntigl (2005).
1977, 1980; Riffaterre 1980; Genette 1982). This view of texts draws upon previous work by Bakhtin (1981), particularly his discussion of what he calls *dialogism* and *heteroglossia*. Thus, according to Bakhtin (1981: 12) “in this actively polyglot world, completely new relationships are established between language and its object [...] and this is fraught with enormous consequences for all the already completed genres that had been formed during eras of closed and deaf monoglossia.”

Intertextuality has also been addressed by text grammarians and discourse analysts, who have focused on various aspects of the concept in agreement with their disciplinary concerns. Thus, in de Beaugrande and Dressler (1981) intertextuality is one of the seven parameters defining texts. The notion is understood as the knowledge structures which are activated by the participants of any communicative interaction, and are reflected—explicitly or implicitly—in the resulting text(s). This knowledge activation may result from (a) spotting the allusion to other texts in a given one and/or (b) becoming aware of the various textual patterns and conventions that may conflate in it. Simply put, intertextuality covers both the explicit relations among texts (often articulated by allusions to or quotations from other texts) as well as the mixture of conventions from different genres in a single text (i.e. *interdiscursivity*).

Likewise, Adam (1992) proposes five basic text types (narrative, descriptive, argumentative, explicative sequence, and dialogue). These are prototypical textual schemas acting as vantage points for all genres and texts, and are illustrated by these in a greater or lesser degree. Texts are seen as intrinsically heterogeneous and fluid artefacts, and this heterogeneity is explained as resulting from the intertextual and, above all, interdiscursive relations held among texts—the latter being particularly interesting typology-wise. In Adam’s words, “un texte est une structure hiérarchique complexe comprenant n séquences—elliptiques ou complètes—de même type ou de types différents” (Adam 1992: 34). He also puts forward two patterns of textual heterogeneity, namely (a) *insertion pattern*, that is, those cases where none of the textual conventions and patterns conflating in a text plays a dominant role but, rather, appear in alternation, and (b) *domination pattern*, whereby sequences from different text types appear in a mixed fashion within a text but there is one that dominates over the others.5

The—related— notions of intertextuality and prototype are also present in Paltridge’s (1995, 1997) framework, where genres are described as prototypes rather than clear-cut semiotic models. This is nicely put in the following definition of genre by Berkenkotter and Huckin: “rather than taking a holistic, normative approach to genre [...] we feel it makes more sense to take a more articulated approach in which individual texts are seen to contain heterogeneous mixtures of elements, some of which are recognizably more generic than others” (Berkenkotter and Huckin 1995: 17). The main concern here is to describe the generic conventions present in texts rather than explaining these as unitary wholes illustrating a single genre. In short, a good number of texts not only refer—implicitly or explicitly—to other texts, but also borrow some of their discursive and linguistic traits to the extent that they are difficult to classify into a single genre. Genre is better seen as a tool that helps analysts describe texts rather than classify them into types.

Another factor that appears to play a role in textual heterogeneity is the medium whereby texts are distributed (Maingueneau 1998; Askehave and Nielsen 2005; Kwasnik and Crowston 2005). Indeed, as happens with the traits of genre discussed so far, the communication media

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5 The concept of intertextuality plays a central role in the approach known as Critical Discourse Analysis (CDA), an approach with a strong sociological and political bias after the work of French scholars such as Bronekart (1996), Courtine (1981), or Pécheux (1982) and expounded in the work of British analysts like Chilton (1985), Fairclough (1989, 1992, 1995) and Fowler et al. (1979). The latter will keep the distinction between *intertextuality* and *interdiscursivity* in their analytic framework.
not only may determine the ‘shape’ of genres, but have a social quality themselves that should not be underestimated. This has been pointed out by Maingueneau (1998) as follows:

Il faut accorder une place importante au mode de manifestation matérielle des discours, à leur support aussi bien qu’à leur transport [...] Cette dimension de la communication verbale a été longtemps reléguée à second plan. [...] Le médium n’est pas un simple “moyen”, un instrument pour transporter un message stable: une transformation importante du médium modifie l’ensemble d’un genre de discours. [...] Le mode de transport et de réception de l’énoncé conditionne la constitution même du texte, façonne le genre de discours. Bien des mutations sociales se manifestent à travers un simple déplacement “médiologique” [...] c’est là bien autre chose qu’un simple changement de lieux et de canal; c’est toute une modification de la société qui est impliquée. Une société [...] ne fait qu’un avec les modes de communication qu’elle rend possibles et qui la rendent possible. (Maingueneau 1998: 57-58)

As it is, the fast evolution and current popularity of ICTs have enabled the emergence of the electronic, online medium which, in turn, has proved critical in changes in current communicative and discursive interaction. Thus, since a good part of our daily transactions is done through computers, some scholars have coined the term of Computer-Mediated Communication or CMC (Walther 1996; Haythornthwaite and Wellman 2002; Herring 2004; Thurlow, Lengel, and Tomic 2004; McQuail 2005). Computers and electronic environments not only have broadened the range of human communication (e.g. wider audiences and blurring of space and time boundaries), but have contributed to what Maingueneau (1998: 68) called the “dématérialisation des supports physiques des énoncés” in direct allusion to the radical differences between the print medium and the virtual, digital one. As could not be otherwise, changes in the interaction process (discourse) have led to changes in the product as well: traditional, printed texts have been replaced by hypertexts, that is, flexible, non-linear, and intrinsically intertextual artefacts made up by internally and externally linked chunks of information of various sorts and from diverse media (e.g. language, images, and sound). In short, the ICTs are determining the ways knowledge is both articulated and transmitted, and have led to a redefinition of literacy, which now involves handling different semiotic codes as well as having some kind of technical expertise. The traditional notion of literacy (characterised by those competences related to written communication) has given way to multiliteracy (Cope and Kalantzis 2000; Shetzer and Warschauer 2000; Coiro 2003; Hauck and Stickler 2006; Luzón and Ruiz-Madrid, in this issue; Villanueva et al., 2008) because both CMC and hypertext involve new ways of approaching communicative interaction (i.e. they concern new norms and new communicative strategies plus abilities) and, accordingly, texts.

Of course, as happened with the ‘old’ notion of literacy, multiliteracy is a genre-mediated affair: it is by participating in the genres afforded and facilitated by the new media, especially those emerged from the web 2.0 (e.g. online forums, wikis, hot lists and the like), that we are becoming acculturated to CMC and are helping maintain the new state of affairs. Two questions remain in this regard. The first issue concerns the novelty of the genres articulating CMC. The argument pivots on whether the digital genres are something new and, above all, idiosyncratic of the new technology and media or, rather, are the result of adapting conventional genres to a new environment. The second issue is whether the parameters used in genre research so far are still valid to explain the new digital genres or, rather, explaining these asks for a new framework specially suited to their idiosyncrasy. The following section deals with these questions.

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6 See also the Journal of Computer-Mediated Communication at [http://jcmc.indiana.edu/]
3. From genres to cybergenres

The impact of the ICTs on human communication is best appreciated in the changes effected in some of our most popular activities: face-to-face conversation has given way to virtual electronic chats, forums and social networks, we no longer have to buy the daily newspaper or magazine to be updated to what happens in the world through the numerous online news sites and newspapers, and we seldom write letters but send e-mails instead. Moreover, if some of those practices still bear some resemblance with their more ‘conventional’, old-fashioned counterparts, we also participate in new practices specifically designed for the electronic medium such as home pages, hotlists and blogs.

Of course, given the flexible and dynamic quality of genre, the fast adaptation of communicative practices to the digital medium is far from surprising. However, characterising all practices as digital genres or cybergenres is not a straightforward matter. In fact, the genres that may be found on the Web show diverse degrees of digitalisation and/or novelty to the extent that whereas some are the same as their print counterparts (e.g. many of the academic papers accessible online), others are slowly coming to terms with the new medium and, accordingly, exhibit a mixture of conventional and new –digital– traits (e.g. electronic dictionaries and encyclopedias), and others are unique to the online medium (e.g. wikis and social networking websites). In other words, cybergenres genres appear to have followed the same trend as conventional print genres, as pointed out by literary scholar Tzevan Todorov (1990: 15) when asking: “Where do genres come from? Quite simply from other genres. A new genre is always the transformation of an earlier one, or of several: by inversion, by displacement, by combination.”

The impact of the new technologies and the digital medium on genres has been extensively discussed by both communication and genre scholars –their discussion covering both the status of the concept of genre in the new state of affairs as well as the implications on human communication at large. This is nicely put by Kwasnik and Crowston as follows:

As documents have migrated to the Web […] their identity as genres has also evolved. New document genres have emerged […] while older ones have blended, changed, and been incorporated into different social endeavors. Print-document genres adapted to the Web, and new electronic genres emerging frequently, appear to be shuffled, disassembled and then put together again, in a seemingly chaotic manner. Many researchers, and indeed the public at large, assume that there are significant and fundamental differences in how these adapted and new genres will now function and be used. As with many technologies, there are fond hopes that these genres will be socially transformative, enabling better communication, as well as more flexibility and expressiveness. Thus some researchers have focused on the transition from one form to another, on new communities of discourse, and on the issues of this transformation.

(Kwasnik and Crowston 2005)

The changes undergone by genres go from their adaptation to the new medium to the emergence of genres specially designed for the Web (Orlikowski and Yates 1994, 1998; Shepherd and Watters 1998; Crowston and Williams 2000; Santini 2006). For instance, in Shepherd and Watters (1998) we find a twofold classification of online genres into (a) extant genres, which replicate conventional genres and can be further grouped into replicated genres or variant genres in agreement with their greater or lesser exploitation of the possibilities afforded by the medium (e.g. hypertextual links), and (b) novel cybergenres, which are typical of the new medium and also fall into two types, namely, emergent genres (genres that have evolved from conventional ones to the extent that they can be considered fairly new) and
spontaneous genres (those which only exist in the new medium). Likewise, Crowston and Williams (1999, 2000) draw attention to the fact that the genres available on the Web may not be that new after all. They account for three sets of genres: (a) reproduced genres (which show no changes with regard to the print originals), (b) adapted genres (which go beyond their original purpose(s) thanks to the new technologies like, for instance, online newspapers or multi-page documents where we can find a book review linked to an online store), and (c) new genres unique to the new medium (e.g. hotlists or weblogs).

A caveat is in order at this point. Thus, both adaptation and emergence should be used with caution when attempting to classify and explain online texts given the fast evolution of ICTs, the users’ acculturation to and use of them, and the concomitant changes in online interaction. In other words, as happens in conventional communication, online genres are constantly changing to the extent that adapted forms may give rise to emergent ones in a fairly short time—both ‘versions’ often coexisting on the Web and, therefore, foregrounding the fuzzy boundaries of genres digital or otherwise (Santini 2007; Villanueva et al., 2008). In this regard, although the various stages of digitalisation shown by online genres have been used to illustrate the dynamism of web-mediated communicative practices and to describe the genres enabling these, the classification of genres into types remains an issue, as suggested by Santini (2007: 71) when claiming that the Web still offers a good amount of “textual patterns without any clear or acknowledged genre convention”.

One of the problems in classifying online genres lies in the use of parameters from conventional genre theory to describe digital artefacts—irrespective of their evolutionary stage. This has been pointed out by Askehave and Nielsen (2005), who claim that the idiosyncrasy of the electronic medium needs to be taken into account when approaching online genres. In their view, “although many web genres have printed counterparts […], the medium adds unique properties to the web genre in terms of production, function, and reception which cannot be ignored in the genre characterisation”. Thus, after reviewing some of the most influential approaches to genre, both authors claim that the set of parameters conventionally used for describing conventional—print—genres should be customised when exploring the genres in CMC. Among the features of the electronic medium that should be considered, Askehave and Nielsen (2005) point to the overt intertextuality (through the link system), global reach, immateriality, blurring of author-reader boundaries, and multimedianess of online texts/genres. Likewise, Villanueva et al (2008) discuss the need to build a framework suitable for describing the genres in CMC, that is, one that “enable[s] us to describe the dynamism, multiplicity, graduality and interdiscursivity of [digital] genres.”

Indeed, the key parameter in defining and describing digital genres seems to be functionality (Shepherd and Waters 1998; Crowston and Williams 2000; Kwasnik and Crowston 2004; Villanueva et al 2008). Functionality is intrinsically related to the technological side of digital genres, that is, the things that users can actually do when engaging in the genres of CMC as afforded by hypertext technology. One of the utilities thus enabled is the system of links articulating digital texts, which can connect textual chunks or informational nodes inside a text (internal links) or, most interestingly, link a given text to other texts posted in cyberspace (external links). As discussed elsewhere (Caballero 2005), the linking system of hypertexts not only helps overcome the space constraints of conventional, print texts, but is also the means whereby authors meet the rhetorical or

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7 I am using terms like ‘informational node’ and ‘text’ in a broad sense to refer to information conveyed in any mode (sound, images etc.) as well as language.
communicative purposes of texts. Thus, hypertextual links have topical, rhetorical and discursive implications since they can

- help expand the topic(s) of a text by connecting some of its –topical– key words with other texts dealing with similar subjects (e.g. features and report files in online magazines usually include links in key words as a means of expanding the topic(s) dealt with in them);
- provide readers/users with different ‘reading’ options according to their own interests and, in this sense, have a bearing on the organisation of the (hyper)textual artefact (e.g. people accessing papers posted in online journals such as Kairos can interact with these in any way they choose by a click of the mouse and, therefore, can re-structure the texts in any way their choose);
- open discourse spaces where writers and readers can interact faster and more actively than in traditional print practices (e.g. some online texts include links through which readers can contact their authors and send them their views or opinions on the topics discussed in the texts, share files, post their opinions, etc.).

Of course, the inclusion of links in online texts does not turn every interaction into a hypertextual one –or a genre into a cybergenre for that matter. On the one hand, many texts and genres on the Web reproduce conventional print practices irrespective of their incorporation of some links (these are generally used to avoid too much scrolling or to expand the texts’ topic). On the other, users are free to approach the texts in a traditional –sequential and unidirectional– fashion as if they were print texts or, rather, they can use them as the point of departure to travel the Web or interact with other users. Put differently, hypertexts allow for reading practices, navigation practices, and interaction practices (or a combination of these) according to the users’ preferences and/or needs (Finnemann 2001; Askehave and Nielsen 2005).

All in all, however, the navigation afforded by the texts’ link architecture not only is one of the most interesting aspects of the new technologies, but is the main characteristic of cybergenres such as webpages or blogs. Thus, hypertextual links afford writers/designers the possibility of constructing rhizome-based texts and provide users/readers with multiple choice points and multiple pathways not only through one single text but also among different ones. Moreover, they turn virtual written interaction into a truly joint enterprise in the sense that the boundaries between writers and readers are no longer clear cut but, rather, are intrinsically fuzzy to the extent that media and literary scholars use the term wreader to refer to the writer-reader combination characterising/authorising a large part of CMC (see Landow 1997; Gilbert 2000; Rau 2000; Clark 2001; Allen 2003; inter alia). Both the new multiliteracy involved in using the ICTs and digital media, and the wreading practices afforded by them are the true challenges in the current Cybernetic Age.

4. Concluding remarks

The present paper has started by providing a brief overview of some approaches to the notion genre, starting from the taxonomic views of the concept to current approaches which see genres as multidimensional artefacts defined by both formal –textual– and functional features (i.e. the processes involved in interacting through them). Genres’ functionality has also been discussed as a critical parameter in order to understand and explain some of the new

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8 A similar view can be found in Askehave and Nielsen (2005), where links are regarded as the functional and structural units of hypertexts.
usage events—i.e. genres—afforded by the ICTs and electronic media. Although the digital or cybernetic proper quality of all the genres currently available on the Web remains open for discussion (and has deliberately been left open in this paper as well), the electronic technologies and media have arguably facilitated new social-semiotic practices exhibiting a high hypertextual, multisemiotic and hybrid quality (the latter encompassing the notion of interdiscursivity as well as the blurring of the classical author-reader distinction). In this regard, the discussion in this paper may be taken as the— theoretical—step previous to exploring not only the new competencies and abilities involved in the new multiliteracy and wreading paradigm, but also, and most importantly, the advantages it may offer for constructivist and autonomous pedagogical practices—particularly, those involved language learning (see Luzon and Ruiz-Madrid, this issue).

References


Learning to Learn in a Digital Context: Language Learning Webtasks for an Autonomising “Wreading” Competence

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Abstract. In this paper we aim to analyse how language learning tasks can help students develop an autonomising wreading competence, i.e. a competence involving the ability to read online texts and to construct one’s own text by traversing sites. This competence involves different types of skills: technical skills of information elaboration and management, linguistic and semiotic skills, cognitive skills, and metacognitive skills. We consider, therefore, that the development of the wreading competence calls for a new approach to language learning, based on the joint development of autonomous learning and new literacies. Although new technologies provide quality resources and tools for teachers to design pedagogical environments which meet the principles of learner autonomy, ICT does not foster by itself autonomous learning (Villanueva, 2006). The promotion of learner autonomy requires carefully designed learning tasks aiming at a long-life learning process. The purpose of this paper is to put forward criteria for the design of language learning cybertasks that promote the development of new literacies applied to language learning autonomy.

1. Introduction

Learning technologies can provide support for constructivist pedagogical practices, which encourage learners to construct their knowledge on the basis of their individual experiences, cognitive structures and social identity. The usefulness of ICT for constructivist pedagogies is evident in its potential for the enhancement of autonomous learning, one of the basis of such pedagogies. ICT can help design pedagogical environments which meet the principles of autonomous learning, e.g., learner responsibility and control over the learning process, support to help the learner develop cognitive and metacognitive strategies, respect for learners’ differences. However, ICT does not generate by itself autonomous learning (Villanueva 2006; Ruiz Madrid, in press). In order to help students harness the potential of ICT for the development of an autonomising competence, it is necessary to carefully design learning environments or learning tasks that promote the active use of metacognitive strategies, that is, that prompt students to plan, monitor and evaluate their own learning.

In this paper we are concerned with the design of language learning webtasks which help students develop an autonomising “wreading” competence, where the ability to read online texts and construct one’s own texts meet. We define “wreading competence” as the ability to understand the pragmatic, discursive and semiotic features of online texts, harness their affordances and interact with them in various ways, find relevant information in different semiotic modes within and across these texts, and relate and meaningfully use such information in order to achieve a specific purpose, complete a task or produce an output. The “wreading competence” involves, therefore, i) technical skills of information elaboration and management; ii) linguistic and semiotic skills; iii) cognitive skills, and iv) metacognitive skills. Therefore, developing this competence, i.e. empowering students to wread hypertext, requires a new approach to language learning, which focuses on all these four types of skills.

1 This research has been financed by project HUM2005-05548/FILO of the Spanish “Ministerio de Educación y Ciencia”.

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Bearing in mind these reflections, we consider that the design of language learning webtasks should rely on a sound pedagogical framework which aims at a long-life learning process and implies both fostering learning autonomy and developing new multiliteracy competences (Cope and Kalantzis 2000; Kasper 2000; Luzón 2007; Villanueva et al. 2008). This involves tasks in which students adopt an active role and reflect upon their own learning preferences, the demands of the language task and the strategies that they will need to complete the tasks.

In this paper we put forward a proposal for the design of language learning webtasks that promote the development of new literacies applied to autonomous language learning. For this purpose, we first present the two keystones on which we consider that language learning webtasks should be based (i.e. the development of learner autonomy and the development of new literacies). We then provide an overview of existing proposals of web-based language learning tasks. Finally, we present our proposal for language learning webtasks which enable students to develop an autonomising reading competence.

2. The psychopragmatic approach. A theoretical framework for the development of learner autonomy in digital contexts.

Research in the field of autonomy and language teaching and learning is closely intertwined with research on constructivism and socioconstructivism in the psycholinguistics field and on the psychopragmatic approach in the language learning field (Villanueva 2007), since these approaches provide a suitable background for successful development of learner autonomy.

Working on the basis of the Vygotskian premises (1984) and their reformulation in Bruner’s socio-constructivist views (1984), the psychopragmatic approach pivots on the concept of effective learning, defining it as a process where the acquisition of new knowledge results from bridging old and new knowledge (i.e. scaffolding). Learning is viewed as an active, creative and socially interactive process to be constructed and not simply transmitted or transferred. This view of effective learning is intrinsically linked to the development of learners’ metacognitive competence (i.e. “learning how to learn”) (Ausubel 1968; Holec 1979; Bruner 1984; Villanueva 1992), which requires the personal involvement of learners in the whole process, participating in it in an active and conscious way. This necessarily implies the design of learning practices aimed at making two aspects explicit: i) learners’ representations of the learning process (e.g., goals, contents, ways of learning, evaluation criteria, among others) and ii) learners’ previous knowledge about the learning process (e.g., how languages are learnt, the teacher’s and the learner’s roles, teacher’s expectations on a concrete task).

Additionally, learning to learn a language involves developing an active process of internalising and integrating the linguistic experience as well as acquiring instrumental procedures for learning (i.e. learning strategies) (Dickinson 1987; Oxford 1990; Wenden 1991). Such a process involves the use of i) methodological and metalinguistic competences (i.e. evaluating the acquired knowledge and being able to reorient the learning plan according to the results), as well as the development of ii) cognitive (i.e. inferring, deducing, generalising, making analogies, among others) and iii) metacognitive skills (i.e. developing critical thinking, organisational skills among others) (Dickinson 1987; Oxford 1990; Wenden 1991). In this approach, thus, learners are provided with challenging learning tasks, whose main goal is to construct learners’ intellectual scaffolding to help them learn and progress in the different stages of their learning process.

In this respect, this approach takes into serious account what kind of comprehension processes may be involved in the different interactions (e.g., teacher-learner, tasks-learner,
learner-learner, etc.). It also considers a diversity of tasks, which are built from clear and workable parameters based upon real language usage. These parameters are designed according to the initial representation that learners have of real communicative interaction in order to maximise their learning potential and enhance it in a process-oriented approach that focuses on what learners do rather than on their outcomes. Such a process-oriented approach to learning does not simply lead to a better understanding of linguistic facts (e.g., structure and vocabulary) and a more effective acquisition of language proficiency; it also leads to greater learning competence as well as language awareness. Finally, significant knowledge is also taken into consideration. This only arises from the process of integration and enmeshment with individual thinking and previously acquired knowledge. Therefore, activities are designed making use of the analogical, inferential and contrastive tendencies of the human mind, as well as those cognitive processes that actually intervene in human conceptualisation and interaction.

The psychopragmatic approach and LA have a common ground that, transferred to the L2 teaching-learning field, is based upon a socioconstructivist view on learning and a discursive perspective on language. Therefore, such a pedagogical framework seems to be a suitable approach for an effective integration of ICT in the language learning field (Little 2001; The European Directorate General of Education and Culture 2003; Sanz 2003; Blin 2004; Villanueva 2006; Ruiz-Madrid, in press), since the unique features of ICT may respond to the demands of the pedagogical premises involved in the development of learner autonomy (i.e. promoting scaffolding, use of real language, a customised learning process, among others). In fact, working from psychopragmatic premises ICT allows for:

- flexible pedagogical proposals that can be felt as useful and as a source of self-esteem by the learner,
- an enjoyable context where learners and texts can converse in understandable terms,
- an environment that caters for the diversity of the learners cognitive profile/style, and their various learning needs and consequent choices.

In this respect, ICT allows language teachers to take into account how users may interact with the system, what kind of comprehension processes may be involved in the different interactions, and which way(s) may best anticipate and supply for both. In sum, it allows process-oriented teaching and learning practices, mainly focused on training users to understand and effectively “dialogue” with the hypertextual dimension inherent to the web. One of these practices is the teaching and learning of new specific literacies that are needed to cope with the idiosyncrasy of the web, such as a wide variety of textual forms (i.e. cybergenres), multilinearity, immediacy, among others.

3. Multiliteracies and language learning

When defining “multiliteracies”, Cope and Kalantzis (2000) refer to two closely related changes: i) the increasing significance of cultural and linguistic diversity, resulting in a wide variety of texts, and ii) the influence of new communications technologies (e.g., multimedia, the Internet), where texts are often multimodal, combining written-linguistic modes of meaning with visual, audio and spatial modes. It is increasingly difficult to function in the worlds of education and work without mastering the new literacies of today society. Students
need, therefore, to become multiliterate and be able both to manage cultural and linguistic diversity and to access and use information in different modes.

All definitions of multiliteracies include the ability to use a variety of technological resources in order to access, analyse and utilise information in different text formats (Kasper 2000; Leu 2000; Anstey and Bull 2006). In this sense, Kasper (2000: 106) states that “to be considered multiliterate, students today must acquire a battery of skills that will enable them to take advantage of the diverse modes of communication made possible by new technologies and to participate in global learning communities”. She considers that in addition to acquiring linguistic competence in English, ESL students must become functionally literate (i.e. “able to speak, understand, read, and write English”), academically literate (i.e. able to read, understand and produce different genres of academic written and oral discourse), critically literate (i.e. able to “evaluate the validity and reliability of informational sources”) and electronically literate. Kasper draws on Shetzer and Warschauer’s (2000) concept of electronic literacy as the ability to use electronic tools for communication, construction, research, and autonomous learning. Being electronic literate involves engaging in new thought processes, in order to interact with new text formats (e.g., hypertext and interactive multimedia), new reader-related issues (e.g., new purposes or motivations for reading a text, high-level metacognitive skills) and new activities (e.g., publishing online, participating in online synchronous and asynchronous exchanges) (Coiro 2003). An interesting point made by Anstey and Bull (2006: 23) is that being multiliterate involves being “cognitively and socially literate” with a range of texts and technologies but also being flexible and strategic, that is, “being able to recognise what is required in a given context, examine what is already known, and then, if necessary, modify that knowledge to develop a strategy that suits the context and situation”.

There is general agreement that, since electronic or digital literacy is a basic component of multiliteracy, pedagogy must rely on a careful analysis of digital texts and of the processes that students need to engage in to use and produce such texts (Coiro 2003; Anstey and Bulls 2006; Merchant 2007). The main features of digital texts pointed out in the literature are as follows (Sutherland-Smith 2002; Coiro 2003; Anstey and Bulls 2006; Merchant 2007; Villanueva et al. 2008):

- digital texts are fluid, not restrained by space limitations,
- digital texts can be easily revised and information can be removed, updated, added or rearranged,
- Web genres evolve at a faster pace than printed genres and are usually characterised by hybridity and multigenericity. This hybridity results in the blurring of boundaries (e.g., formal/ informal; public/ private; information/publicity),
- hyperlinks result in non-linear hypertext that interweave in complex ways, allowing the readers follow their own non-sequential reading paths,
- digital texts allow for high multimediacity and therefore are more densely multimodal than printed texts,
- digital texts are interactive, which results in the blurring and overlapping of the reader and writer roles. Readers can collaborate in text construction by replying, linking, posting comments and so on. Users can also interact with each other through communication tools such as electronic discussion boards or chats.

As Coiro (2003) rightly points out, these electronic text environments require new thought processes for making meaning and, thus, multiliteracy pedagogy must promote the development of new literacy skills. The following list of new literacy skills is distilled from work on multiliteracies and digital literacy (Burbules 1997; Lankshear et al. 1997; Snyder
the ability to work in non-linear environments and to navigate hyperlinks skilfully in order to effectively locate and access the information needed. For this purpose, “readers need a new type of inferential reasoning to anticipate these differences and decide whether or not each hyperlink will enhance or disrupt their search for meaning” (Coiro 2003). In order to enhance their ability to hyperread critically (Burbules 1997), students need to reflect on how links work, i.e. how they connote relations between the texts they connect, which purpose they have within the text,

- the skill to use new search techniques (e.g., multiple search engines, manipulation of databases) to find information and draw on multiple strategies for finding information,

- the ability to read both the textual and the visual and thus understand and make meaning from multimodal, multimedia texts. It is necessary to train students to access, manipulate and respond to information that integrates a variety of symbols and icons and multiple-media formats. Students need to be able to distinguish between important visual graphics and ornamental ones and verify the credibility of graphics. All these abilities boil down to being skilful code breakers (Luke and Freebody 1997; Anstey and Bull 2006). Students need to be able to make meaning out of the various semiotic systems in a text, by understanding how these semiotic systems work on their own and in combination with others,

- mastering the language and the pragmatics of various forms of synchronous and asynchronous communication, both in one-to-one interaction and "many-to-many" electronic discussion forums,

- the ability to critically evaluate information. According to Burbules (1997), critical users of new technologies need ways to be selective about the information they find and multilayered ways of judging credibility,

- the ability to draw connections and synthesise pieces of information from different sources and multiple perspectives and to assemble them “into cogent viewpoints and arguments” (Lankshear et al. 1997). This involves being a capable meaning-maker (Luke and Freebody 1997; Anstey and Bull 2006). According to Luke and Freebody (1997), the major resource for meaning making is the student’s literacy identity, i.e. his/her previous literacy, social, cultural, and technological experiences. This literacy identity includes prior experience with texts any knowledge about texts, which shows the importance of raising students’ genre awareness,

- the all-encompassing ability to use text in real-life situations, e.g., online negotiations around a written text, using instructions to assemble a machine, or collaborative tasks in the workplace (Luke and Freebody 1997; Anstey and Bull 2006). When performing a task, texts users might work with different types of texts and multiple semiotic systems (e.g., linguistic, visual, auditory) and might need to interact with and through text in multiple modes (e.g., reading, writing, listening). Therefore, as Luke and Freebody (1997) point out, text users need knowledge about texts, their purpose, use, and structure, i.e. genre knowledge.
learners in activities which prepare them for these new reading and writing practices and processes.

With the purpose of helping students develop the writing and reading competences necessary in the Cybersphere Age, we take the “webquest/ language quest model” (Dodge 1995; March 1997; Luzón 2002; Koenraad 2006) as the general framework to design language learning tasks. However, we consider that, in order to promote learner autonomy, these tasks should be designed in such a way that they do not only allow language learners to improve their linguistic knowledge but also enable them to develop cognitive, metacognitive and intercultural strategies in all the different types of communication afforded by the new medium. In the remaining of the paper we will first describe the WebQuest model and the proposals to design language learning webtasks based on such model (e.g., Talent Quest), and then we will present our proposal for the design of webtasks that promote the development of new literacies applied to autonomous language learning.

4. WebQuests and Language Quests

4.1. WebQuests: an evolving format

We take the WebQuest format as a model for the design of webtasks, due to the fact that the principles underlying WebQuests are those of constructivism (i.e. students learn by transforming information and constructing their perceptions of complex concepts) and well designed WebQuests can provide support for and meet the criteria of major SLA theories. Therefore, this is a potentially suitable format to create activities that support autonomous language learning and multiliteracies competences.

The WebQuest was originally conceived as “an inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the Internet” (Dodge 1995). The key attributes for their creators were: i) authentic tasks, ii) use of Internet resources, and iii) development of critical thinking skills. With this idea in mind, they proposed a format including the following components:

1. An introduction that sets the stage for the activity and provides background information.
2. A feasible and interesting task, which usually engages students in answering a complex open-ended question or solving a real world problem. Working in small groups, students analyse the Web sites given to them by the teacher and complete a real world activity.
3. A set of information sources needed to complete the task: a few websites pre-selected by the teacher which provide background information for all learners, as well as specific websites for each student’s role.
4. A description of the process the learners should follow to complete the task.
5. Evaluation, usually in the form of a rubric that sets the assessment criteria for the students.
6. A conclusion that closes the quest and encourages the learners to reflect on the process.

Since its creation, the WebQuest format has evolved and its creators have redefined it to meet the changing needs of learners and to harness the constantly developing capabilities of the Internet. In order to emphasise that a (real) WebQuest requires transforming information into a new understanding, March (2003: 43) provided the following definition of WebQuests:
A real WebQuest is a scaffolded learning structure that uses links to essential resources on the World Wide Web and an authentic task to motivate students’ investigation of a central, open-ended question, development of individual expertise and participation in a final group process that attempts to transform newly acquired information into a more sophisticated understanding. The best WebQuests do this in a way that inspires students to see richer thematic relationships, facilitate a contribution to the real world of learning and reflect on their own metacognitive processes.

According to this definition, the basic attributes of a WebQuest are the following:

1. Scaffolding, i.e. temporary support frameworks to help students only with skills which are beyond their capability.
2. Essential Internet resources, i.e. “Internet resources that are interactive, media-rich, contemporary, contextualized or of varied perspectives” (March 2003).
3. Authentic motivating tasks, i.e. tasks that meet Keller’s (1983) ARCS Model of Motivational Design. Tasks should get the students’ Attention (authentic tasks with relevant topics), should be Relevant to the students’ needs or interests, should inspire learners’ Confidence in achieving success and should leave students with a sense of Satisfaction in their accomplishment.
4. Open-ended questions which activate students’ prior knowledge and prompt them to investigate further.
5. Individual expertise, due to the fact that when students elaborate the answer to complete the task, there are differences in previous knowledge, effort and ability.
6. Knowledge transformation. The tasks should require students to construct an answer and transform input information into new knowledge.

In addition, March (2003) points out that the following learning strategies could greatly enhance WebQuests: helping students to see richer thematic relationships, getting students to test their newly constructed knowledge with real-world feedback and encouraging them to reflect on their own metacognitive processes.

In a later paper, March (2007) posits the need to refine again the WebQuest concept into a task “that could scaffold student use of Web 2.0 environments, enabling a shift toward authentic personal learning” (March 2007: 1). He revisits the four core aspects of WebQuests (student motivation, advanced thinking, rich learning resources, scaffolding) to propose paths to support students’ learning in Web 2.0 environments. In order to facilitate students’ intrinsic motivation, March (2007: 4) suggests focusing on the students’ perceptions that sustain motivation: “perceptions of control or autonomy; competence or self-efficacy; and relatedness of connectedness” (Ryan and Deci 2000). Focusing on these perceptions involves letting students choose at different stages of the tasks (objectives, roles to play, resources to use, steps to follow, task output). Regarding critical thinking, March draws on literature in the field to point out that students need both the capacity and the disposition to engage in high level thinking (i.e. tendency to explore, to be planful, to evaluate). In order to foster critical thinking through WebQuests, March suggests the use of Thinking Routines: “simple patterns or structures, used over and over again, that support and scaffold specific thinking moves or actions” (Ritchhart, Palmer, Church, and Tishman 2006), a strategy whose main purpose is to make the thinking of all the students more visible. As for resources, March argues for the need to see them in the light of the Web 2.0. frame of mind, where basic ideas are collaboration, interaction, content creation and sharing, and individual’s empowerment. Finally, scaffolding should be aimed at placing the learner in charge of the learning. For this purpose, March (2007: 8) proposes a scaffolding model which “integrates self-directed learning to promote
increases in student wellbeing and advanced cognition”, “CEQALL”- standing for the following phases: “Choice” (students should be given the opportunity to control their personal learning experience, choosing their own goals and outcomes), “Effort”, “Quality” (the teacher is a mentor to help students achieve learning outcomes that are valued), “Attitude” (positive attitude) and “Labor of Love”.

Dodge, the other creator of WebQuests, has also seen the need to adapt web tasks to the students needs. In this sense, Molebash et al. (2002) remark that real WebQuests are useful to promote structured inquiry2, where students follow a prescribed procedure to investigate a question posed by the teacher (Herron 1971), but they cannot be used to promote higher levels of inquiry described by Herron (1971), such as “guided inquiry”, where students use their own designed/ selected procedures to investigate a question posed by the teacher, or “open inquiry”, where students formulate the questions to investigate and design/ select the procedures to follow. As can be seen, both March and Dodge, therefore, argue for the need to present students with activities which foster their autonomy and let them control the learning process.

Molebash et al. (2002) put forward “Web Inquiry Projects (WIPs)” (http://edweb.sdsu.edu/wip) as a more open-ended model, where students get less specific guidance in order to promote higher levels of inquiry. WIP are not in fact models to be used by students in the same way as WebQuests but teacher resources. In Molebash et al.’s words:

WIPs are intended to be used as inquiry roadmaps for teachers desiring to promote higher levels of student-centered inquiry, specifically by leveraging uninterpreted online data to answer inquiry-oriented questions. Unlike WebQuests, which provide students with a procedure and the online resources needed to complete a predefined task, WIPs will place more emphasis in having students determine their own task, define their own procedures, and play a role in finding the needed online resources.

WIPs provide teachers with six stages of scaffolding: “Hook” (a learning hook which makes students reflect on a topic), “Questions” (students ask questions related to the topic), “Procedures” (the teacher assists students in defining the procedures, including the type of data to be used), “Data Investigation” (students gather and investigate data, and, with the help of the teacher, assess their relevance and reliability), “Analysis” (students analyse and manipulate data and the teacher provides the tools to do it) and “Findings” (reporting findings and drawing conclusions). Only the first of these stages (the Hook) is provided to the learner, while the others are drawn on by teachers when necessary as they support students in their inquiries.

3.2. WebQuest for Language learning

Although WebQuests are not activities originally intended for language learning, several researchers have seen their great potential for this purpose, specially within the framework of task-based and content-based language learning (Felix 2002; Koenraad 2002; Luzón 2002, 2007; Ros i Solé and Mardomingo 2004; Richards 2005; Simina and Hamel 2005; Pérez 2006; Barros and Carvalhos 2007). We should remember that two basic attributes of WebQuests are authenticity of tasks (i.e., the basis of task-based learning) and rich authentic resources (i.e., the basis of content-based language learning). However, considering the use of WebQuests for Language Learning also requires a redefinition of the concept to make it comply with SLA

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2 Molebash et al. (2002) point out that there are some so-called WebQuests that are not in fact “inquiry-oriented”, since they are Internet Scavenger Hunts, where students have to answer questions by going to specific websites.
principles and to adapt it to language students needs. An interesting project in this line is the LanguageQuest project\(^3\), aimed at adapting WebQuests to the specific requirements of SLA (Koenraad 2006) and using this format for designing realistic, content-oriented functional tasks for language learning. A “TalenQuest” (the Dutch term for “LanguageQuest”) is defined as follows: “A TalenQuest is a WebQuest with a focus on foreign language learning. It is a venture that leads to a product and, in the process, triggers, in a natural way, a variety of effective learning activities.” (Koenraad 2006). Researchers working in this project have developed a useful set of criteria that should be taken into account to design WebQuests for effective language learning. They claim that tasks should:

- promote use of the target language,
- require the use of authentic materials,
- be open-ended and flexible and cater for students’ individual needs (e.g., more or less support, quantity and variety of materials, options in procedures),
- require meaningful communication to produce the output, and
- provide opportunities for reflection.

An important goal of Language Quests is to help students become autonomous and motivated learners by developing study/research skills and critical analysis. The suitability of the WebQuest format to foster language learning autonomy as well as to engage students in new reading processes required to understand digital texts and to construct knowledge out of them has also been pointed out by other practitioners (Ros i Sole and Mardomingo 2004; Luzón 2007).

Research on WebQuests for language learning has also emphasised that these tasks pose challenges different from WebQuests for other disciplines. When getting down to the design of Language Quests, teachers need to anticipate and reflect on how to overcome some difficulties, such as the students’ linguistic competence to understand resources and to use L2 to produce the output or the lack of direct language instruction, which makes it more difficult to focus on language (Pérez 2006). Pérez (2006) proposes some strategies to overcome these difficulties, e.g., asking less knowledgeable student to complete less complex tasks or offering them more linguistic support, stating linguistic and non linguistic goals explicitly, providing scaffolding appropriate to the students’ needs (background content, lexical and syntactical support, grammar guides, language workshop, aimed at helping students improve lexical, syntactic and language use aspects and practice language skills) or integrating the WebQuest into the syllabus.

5. A proposal for language learning webtasks

We take the “webquest format” (Dodge 1995; March 1997; Luzón 2002) as the general framework to design language learning tasks intended to develop an autonomising “wreading” competence, but we consider that such format should be adapted to promote the joint development of electronic literacies and of autonomous language learning. As has already been pointed out, a wreading competence involves much more than understanding the linguistic elements of a text (i.e. grammar and vocabulary elements). It involves understanding the digital nature of hypertexts, that is, how digital texts work, and being able to use them strategically to achieve a specific purpose.

\(^3\) For a detailed description of the project and the results, see the project website (http://www.talenquest.nl)
We consider that the design and implementation of Internet-based language learning tasks should be grounded on second language acquisition (SLA) principles (see section 4.2. above), constructivist theories and research on learner autonomy. In addition, it should also take into account research on educational technology, digital texts and new literacies. As researchers on the use of WebQuests for language learning point out, this format is based on constructivist theories and fit well with a task-based and content-based approach to learning languages. Drawing on such format teachers can design a collaborative learning environment, where students are provided with active and engaging real-like open-ended activities. However, in order to promote an autonomising wreading competence, these tasks should be designed in such a way that they raise language learners’ awareness towards the complexity of online texts and enable them to develop the cognitive, metacognitive and intercultural strategies necessary for communication in the new medium.

The training in the new literacy of wreading should, therefore, be approached from a process-oriented perspective that affords the introduction of new types of specific abilities which are necessary in the Cybergenre Age. In this new context, it is necessary to facilitate the development of specific skills where reading and writing competences meet to become an integrated wreading competence: i) technical skills of information elaboration and management (e.g. the ability to find valuable and relevant sources of information or the ability to evaluate the usefulness and relevance of online information in relation to one’s purpose); ii) linguistic and semiotic skills (e.g. the ability to understand the lexico-grammatical and pragmatic features of online texts or the identification of the different communicative purposes and the possible audiences of a webpage or site); iii) cognitive skills (e.g. categorising and linking information), and iv) metacognitive skills (e.g. learning to evaluate hypotheses when using the links, and the results obtained, establishing different criteria in order to evaluate the language learning process).

In order to help students develop these skills, when designing language learning tasks special attention should be paid to two aspects: i) resources, and how to help students interact with them strategically; and ii) scaffolding/learning supports which make for a strategic and reflective learning behaviour.

a. Learning resources

We consider that the following aspects should be taken into account when choosing resources for a task or when guiding students to select and choose resources themselves: i) the need to make students aware of the features of digital textuality; ii) the need, as March (2007) points out, to see resources from a Web 2.0 perspective.

Although some digital texts share purposes and forms with their printed counterparts, they usually have features that are unique to texts in the digital medium, e.g., they can link to many other documents in multiple media forms, they have fuzzy boundaries, they are dynamic and can be changed any moment. Thus, resources should simultaneously show the intertextual relations and generic echoes in digital texts and reflect the textual complexity of the web, that way training students into multiliteracies. This involves the use of resources which raise students’ awareness towards:

- The multiplicity and complexity of digital genres and the highly dynamic and evolving nature of these genres. This will train students to cope with uncertainty and will help them understand that genre features are selected to fulfil specific purposes and meet the expectations of different audiences. Resources should be
used to help students understand digital texts by encouraging them to look for resemblances and intertextual links with printed texts.

- The multiplicity of semiotic systems (linguistic, visual, auditory and spatial). Resources should include documents which combine multiple semiotic systems and thus can help to train students to identify the types of systems used by different texts, the information conveyed by each semiotic system and the purpose for which these systems are used and combined in the text.

- The different hypertextual structures underlying websites. Digital texts tend to be hypertextual and interactive, forcing the users to choose the paths they want to follow in their reading process. Although hypertextuality is a common feature, digital texts vary greatly in their underlying structure and in their degree of complexity (Villanueva et al. 2008). Students need to be exposed to websites with different structures in order to learn to be strategic and make choices when navigating through and across sites with different structural complexity and to understand the linguistic and navigation clues in such sites.

- The multiplicity of languages and cultures that get linked and intertwined in the web, and the need to adopt an open attitude to other languages and cultures. Poliphony and multiplicity of perspectives in hypertext should be considered. If texts with different perspectives on a topic and different underlying ideologies are provided, students can learn to assess the text authority and to examine the role of language in shaping values and beliefs.

Seeing resources from a Web 2.0 perspective involves regarding them not only as information sources but also as tools that promote participation, sharing and collaboration in the construction of content and varied and authentic language interaction. In this sense, tasks can exploit the functionality of the web 2.0, reflected in new tools, such as blogs, wikis, social nets among others. Resources should be seen as tools to do things and students should be encouraged not just to get information in a passive way, but to act. Digital texts and tools offer multiple opportunities for action and for interaction with and through them, i.e. users can watch videos, participate in conversation, interchange and share documents and files, collaborate by adding to or modifying documents, register to do something, purchase and book products, etc. It is necessary to show students the options for action that texts and tools offer and prompt them to interact with texts in such a way that they learn how to engage with these texts. If students are given different possibilities for action, they are provided with the opportunity to make choices about which resources to use and how to use them to fit their purposes.

b. Scaffolding/ learning supports

McLoughlin and Marshall (2000) define scaffolding in the following way: “Scaffolding is a form of assistance provided to a learner by a more capable teacher or peer that helps learners perform a task that would normally not be possible to accomplish by working independently”. This kind of assistance is essential in order to make effective use of webtasks. Learners need support and tools which allow them to make the most out of such web-based tasks concerning learner autonomy development. This support includes tools for cognitive and metacognitive strategy development (Linn 1996; Ruiz-Madrid 2005; Luzón 2006) and technology-related strategies (Luzón et al. in press) in relation to the development of a wreading competence. Linguistic support also needs to be taken into account, with special emphasis on the role of
vertical (teachers/mediators-learners) and horizontal (peers) feedback afforded by the new collaborative and communication tools (McLoughlin 2002). We consider that all these aspects contribute to the design of webtasks “which provide the learners with support tools to enable them to complete the tasks, which promote learner independence through critical reflection and self-assessment and which provide for teachers and peer support and feedback” (Luzón 2006: 116).

Scaffolding tools and learning support need to be designed as integral parts of the learning process (McLoughlin and Oliver 1998), with the ultimate aim of helping learners become aware of their own learning process and, if necessary, make decisions about this process according to their own needs and the context in which these happen. The design of webtasks affords such an approach, since the flexibility of the hypertext affords the integration of learning supports to guide learners and the design of feedback mechanisms which are responsive and sensitive to their individual needs (McLoughlin and Oliver 1998; Ruiz-Madrid 2005; Luzón 2006).

Luzón (2006) distinguishes six different ways to help learners in an online language learning environment: i) helping learners to set their own goals, to decide how to achieve these goals and select materials according to them; ii) the selection and use of materials; iii) support elements that help learners to comprehend and thus complete the task; iv) support elements in materials that raise language awareness; v) the use of materials that raise learning awareness; vi) incorporating tools for assessment and feedback. Nevertheless, these six aspects could be grouped into two different categories, i) support elements that raise learning-awareness and ii) support elements that raise linguistic-awareness.

Concerning “raising learning-awareness”, the following support elements should be taken into account: i) “a clear task-structure”, ii) “a careful selection of materials” and iii) “metacognitive supports”. Webtasks need to be clearly structured, so that the steps to follow in order to complete the task and the relationships among the different sections of the task are clear and understandable for learners. Tasks also need to offer the opportunity to make choices, that is, learners should take responsibility and choose the most convenient path to their understanding in order to fulfil the task. Therefore, the information given in the tasks needs to be transparent for learners. New information needs to be linked to learners’ prior knowledge and activate learners’ cognitive strategies.

As for the materials and resources used in the webtasks, in addition to being selected according to the criteria discussed in section 5.a. above, they need to be evaluated by the teacher to make sure that they are suitable to the learners’ language competence and their language and learning needs. The number and type of materials and resources to be included in the tasks should be rich enough to respond to the different learners’ learning styles (i.e., different formats) and needs and limited enough to be relevant for the goals of the task and therefore avoid cognitive overload. This selection of materials should be presented to learners in an open way, so that they are able to take responsibility for their own learning and make their own choices. A possibility that should also be seriously considered is offering learners the option of looking for, selecting and evaluating their own materials and resources in order to fulfil the learning goals of a task. This option prompts learners to reflect on their own learning process (i.e. metacognitive-skills awareness) as well as to effectively search and discriminate web resources and materials (i.e. technical skills of information management development).

The two aspects mentioned above (i.e. a clear structure of the task and a careful selection of materials) are central when introducing “metacognitive support”. According to O'Malley and Chamot (1990: 8) "students without metacognitive approaches are essentially learners without direction or opportunity to plan their learning, monitor their progress, or review their accomplishments and future learning directions". The use of a clear and understandable
metalanguage in the different sections of the webtask may contribute to helping learners develop an autonomous learning behaviour (Ruiz-Madrid 2005), and, consequently, be aware of their own learning process by setting their own goals and deciding how to achieve them. Furthermore, a previous evaluation of the materials and resources included in the webtasks may help learners choose the most suitable materials to achieve the learning goals of the task.

It is also important to incorporate tools for monitoring, feedback and assessment. Concerning monitoring, technology affords the possibility of incorporating communication tools that allow learners to have control on their own learning process, as for instance the introduction of tailor-made e-learning diaries or blogs. As for the tools for feedback, technology affords multiple possibilities for feedback delivery in online environments, from the use of forums that allow communication among peers or learner-teacher to the use of context-sensitive tools (i.e., help button) that can be automatically activated before or after a specific activity or that can be activated on learners’ demand. Regarding tools for self-assessment, self-evaluation and reflection, technology offers the possibility of combining quantitative (summative tests, qualifications, etc.) and qualitative methods (e.g., e-learning diaries). In order to help students evaluate not only the product of learning, but also the learning process, webtasks can include different online tests on learning styles, language competence, digital competences, learning or linguistic difficulties found in the activities, among others, whose results can help learners reflect on their learning process and accordingly choose the most convenient strategies to make the most out of it.

Finally, webtasks should also offer learners explicit specific help on the development of basic digital competences, so that they can become familiar with the textuality of digital texts and the online environment in which they are presented (Kasper 2000; Luzón et al. in press). Accordingly, when necessary, specific help on navigating modes, searching strategies on the web, use of specific programs and tools for the classification of resources, use of video tutorials about specific technical difficulties related to the use of the computer or the web, etc. should be offered as part of the support elements that contribute to raising learning awareness in webtasks.

As for the elements that “support linguistic awareness”, they include “a thoughtful selection of materials” and “appropriate linguistic input”. We consider that the materials selected for the task should contribute to i+1 learners’ linguistic proficiency development in particular, and to learners’ communicative competence in general. Accordingly, the selection of materials requires a previous linguistic evaluation by the teacher in order to assess their validity in terms of linguistic awareness support. It is also essential for the learners to receive help to understand texts with unfamiliar vocabulary and grammar. In this sense, Pérez (2006) makes special emphasis on the design of Webquests to improve FL reading comprehension in general and the acquisition of vocabulary in particular. She refers to previous research (Chapelle, 1998; Chun, 2001) that focuses on different techniques/procedures to help learners improve their linguistic competence. In the same line, Chapelle (1998) stresses the importance of making the linguistic characteristics of the target language salient by, for instance, highlighting the linguistic items in a different colour on the screen depending on their function within the text, the lexico-grammatical structure, their contribution to the generic articulation of the text, their semantic nature, etc, according to the linguistic goal of the activity proposed. Chun (2001) proposes the use of glosses that can include definitions, explanations, images, videos, sounds; of links to free online dictionaries previously evaluated and selected by the teacher, of communication strategies of repetition, simplification, redundancy; of grammatical explanations designed on purpose on specific structures that are present in the exercise or texts; of free online grammars previously evaluated and selected by the teacher or of free
online corpora, where learners can check the use of lexico-grammatical structures in different types of texts, among others.

These proposals to enhance learners’ linguistic competence refer to CALL-based environments, where texts can be previously manipulated. It is obvious that the solutions these authors offer cannot be applied to web-based texts, since the characteristics of the texts (see section 3) make it a difficult task. However, these procedures should be seriously considered as part of training tasks previous to the webtask itself. Accordingly, learners could be trained into vocabulary and linguistic difficulty management and therefore they could be able to select and use their own resources to overcome it.

6. Conclusions

The affordances of the Web have brought about the appearance of new discursive and social practices that demand an active role of users, who need to become wreaders in order to cope in digital environments. Accordingly, web users should be able to understand, control and produce new texts and participate in new social environments, where immediacy and reciprocity are basic aspects. Taking into account these considerations, it seems obvious that the effective design of web-based tasks for language learning should involve placing the learner at the centre of the learning process. In this sense, ICT can help in the design of web-based language learning activities which meet the principles of learner autonomy. However, ICT does not generate by itself learner autonomy. In fact, it is necessary to carefully design learning tasks that foster the development of metacognitive strategies, that is, that prompt students to plan, monitor and evaluate their own learning. This thorough reflection on the requirements of effective learning tasks is also necessary to develop the new competences called for when using ICT resources and tools. Language learning researchers and teachers should design pedagogical proposals that respond to the demand of a new wreading paradigm. This wreading paradigm involves the development of specific skills such as collaboration, interaction and high-order capabilities of information management. These competences will help language learners manage the web complexity in terms of multigenericity, hybridism, multisemiotics, multifunctionality and interactivity (Villanueva et al. 2008).

In this paper we have proposed several criteria for the design of web-based language learning tasks which help students develop an autonomous learning behaviour, in which the development of the wreading competence is fundamental. Developing this competence requires a new approach to web-based language learning tasks, which integrate (i) technical skills of information elaboration and management; (ii) linguistic and semiotic skills; (iii) cognitive skills, and (iv) metacognitive skills. In the proposal for the design of webtasks presented here we have focused on two aspects that we consider key to help learners develop these skills. The first one is the selection of resources that can raise learners’ awareness towards the features of digital textuality and the use of such resources not only as information sources, but also as tools to promote sharing and collaboration in the construction of content and authentic language interaction. The second aspect is the integration of learning supports which make for a strategic and reflective learning behaviour. These include support elements to raise both learning awareness and linguistic awareness. Further research needs to be carried out to test the validity of this proposal in terms of both learning awareness and linguistic awareness efficacy.
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Website Architecture, Information Flows and Cognitive Models

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Abstract. This paper explores the relation between new digital genres configuration and their users’ previous knowledge patterns from an interlinguistic perspective. More precisely, first we analyse two models that underlie the formal architecture of websites. For that purpose we introduce diverse pieces of software that allow for visualization of website organization in terms of nodes and links. Then, we show the most entrenched metaphoric models that provide cognitive tools for users to understand website configuration and usage, in an English speaking culture. Finally, we discuss to what extent these models can be transferred and learned by users from other cultures, particularly in Spanish speaking communities.

Keywords. Cybergene, Information Flow, Idealized Cognitive Models, Cultural Transfer, Vocabulary Learning

1. Introduction

The coming of writing added a whole world of new strategies and competences, both productive and receptive, to natural language human communication. Some centuries ago, that increase in communicative tools and purposes was considerably enhanced by printing. In the 20th century, the mass media revolution in human communication caused an explosion of creativity in message production, mainly addressed to a receptive audience who might interpret messages but, nevertheless, had to remain passive with no chance to questioning, modifying or even providing an answer to them. None of those changes in the past does compare to the present blast of communicative activity through the Internet.

The new virtual reality goes much further by allowing users for remaking and recreating messages, as well as for providing feedback and interaction by means of a multimodal design where traditional genres of written or audiovisual language cannot supply the necessary tools for a full exploitation of the medium (Ruiz-Madrid 2005). The PC screen has become a telephone, a play station, a shop window and a desktop all at the same time, and that fusion has originated the flourishing of new formats, new conventions, new textual functions, and new communicative purposes.

Some authors refer to these new genres as digital genres or cybergene (Askehave and Nielsen 2005), which in turn demand special abilities from readers or users for the emergent language in the enriched context (Navarro-Coy 2007; Navarro-Coy and Villanueva 2009; Villanueva et al. 2008). Messages are not only produced by a writer or received by a reader, but also processed and recreated by the designer and even the users, a usage that defines the recently coined concept of wreader (writer-reader). Young generations have developed the capacity to cope with that virtual reality, a formerly unusual set of strategies and skills known as multimodal literacy (Lemke 2002).

Though older generations, educated by means of reading paper books, must also adapt to the new context, both young and old share a culturally fixed common tradition consisting of behavioural schemas, reading scripts and patterns, which build up a store of common experiential domains actually used to conceptualize the new wreading context. We refer here

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1 This research has been financed by project HUM2005-05548/FILO of the Spanish “Ministerio de Educación y Ciencia”. 
to what is called previous knowledge in learning psychology. New skills, new strategies and tools are understood first through old schemas and patterns that help build up a notion of the new interactional context.

In other words, the Internet medium demands a new literacy, a different type of writing and reading strategies, a new communicative code that, nevertheless, must stand on previously acquired knowledge patterns, schemas and structures. Otherwise, new literacy learning would not be economical enough from a cognitive perspective. Altogether, both designers and users of cybergenres need a cognitive common ground which they can base their new multimodal literacy on. That shared knowledge is nothing else but the old literacy, plus other kinds of previous knowledge, like experiential knowledge – not only reading, but also telephoning, shopping, advertising, writing, using a desk, that is, the everyday cognitive domains of social life.

We are concerned here with feasible descriptions of the emergent dialogue forms between readers and writers, given that the new media frames of textual organization are causing a change in social-semiotic practices. The evolution of Internet genres allows state the presence of the previously existing genres, their transformations and hybridization processes, and the rise of new generic traits (Navarro-Coy & Silvestre-López, this issue). Lemke (2003) claims that digital environments offer ground for flexible transgeneric constructions, as the result of users’ navigation and reading in a given context, according to certain objectives. From a general perspective, websites structural planning has evolved gradually from a vertical hierarchic tree structure to a non-hierarchic horizontal rhizomic structure. This evolution has been gradual and, in order to facilitate usage, hypertextual writing supplies diverse guiding tools: bread crumbs that indicate the relative location in the navigation, site maps, search, generic links, etc. The known generic structures blur, and this tendency to genre mixture facilitates intertextual relations and hybridity (Chandler-Olcott and Mahar 2001). Traditional genre theory establishes that genre depends on conventional sequencing patterns. Nevertheless, retaking Halliday’s notion of "cohesive harmony", Lemke (2003) points out that, in multimedia genres, text organization phases, syntagmatic units, semantic chains and the semantically connected chain clusters have parallel operation whose constraints do not agree with generic sequences. In genre theory that evolution has been overtly noticed by some authors who signal the existence of emergent genres, dynamism and evolution (Shepherd and Watters 1998; Crowston and Williams 1999), hybrid genres (Villanueva et al. 2008) o virtual cyber culture (Finemann 1999). At this point, we should recall Finemann’s observation that:

the relation between printed and electronic texts is a correlation rather than an opposition (coexistence and co-evolution rather than replacement), according to both empirical and conceptual criteria […] that the relation between the Gutenberg galaxies and the Turing galaxies is not one of opposition and substitution, but rather one of co-evolution and integration (Finemann 1999: 7)

New formats and text types –hypertexts– occur thanks to the existence of previous knowledge. Both website architecture and usage patterns are determined by previous schemas already grounded on the designers and users’ strategic baggage. That is the focus of our interest in this paper. Our aim is to bring about evidence of these behavioural patterns, schemas and cognitive models that exist in the cultural background of both designers and users, and that facilitate the management of new cybergenres by means of mapping the already acquired knowledge structures onto the emergent generic tools. In the following sections we describe two structural principles that underlie website architecture, the mirror model and the fractal model. Previously to that we introduce the graph software tools that may be used in order to visualize those underlying models of website architecture. Then, we show the metaphorical idealized cognitive models (henceforth ICMs) that serve the function of

providing expression, linguistic or otherwise, to interface usage models of websites (Lakoff and Johnson 1980; Johnson 1987; Lakoff 1987; Kövecses 2002). We do that by means of mapping previous knowledge structures onto the management and understanding of websites as new cybergenre (Navarro-i-Ferrando and Silvestre-López 2009). Finally, we show the mismatch between the English schemas and ICMs, as source of terminology, and the sometimes ill translations and misleading calques into other languages (Porto-Requejo 2008, Tokar 2008), which causes the lack of transfer of the previous knowledge from the source culture into coherent models or schemas in the target culture. That fact brings about additional difficulties for users of other languages than English, as far as the acquisition of Internet and digital literacy is concerned. Therefore, the research of digital texts production and reception schemes is highly needed in relation to knowledge and information dissemination in different languages, as well as to the development of foreign language skills in hypermedia environments.

That type of research addresses questions like the following: Which are the cognitive pragmatic model variations that guarantee texts understanding? How do information flows that underlie websites architecture appear in the user’s interface? What kind of interaction takes place between hypertexts and both reading and navigation modes?

Our work focuses on the macro-textual and schematic aspects that the learner as wreader should be concerned with. In this connection, cybergene study includes the intercultural dimension as a fundamental key to the development of an integrated multilingual competence that encompasses both a reflection capacity on culture and language learning, on the one hand, and progressively increased learning autonomy on the other (Villanueva et al. 2008).

2. Graph software and the description of website architecture and information flows

Graph software facilitates website architecture analysis by providing solutions to the following requirements:

1- The capture of all the pages of a single website, or a set of websites, as well as all the links that connect pages to one another, so that the structural information of the website can be obtained.

2- The graphical visualization of the website structure, including all the links between its pages, for the identification of website type and its possible navigation modes.

3- Users’ navigation records (visited pages, visiting time, etc.).

4- Graphical visualization of the navigation record, along with the website structural information, for the identification of particular users’ navigation mode.

2.1. Capture of website structure

The first requirement demands for a graph application that captures all the links rather than the contents of the website. Among the products that exist at the moment the following ones provide utilities that could offer acceptable results:
Offline Explorer, WebZip and Web Copier are Web catchers, i.e. they download a copy of the website to the computer so that it would be possible for it to be locally consulted with no need of connection. We checked whether they could generate contents trees including all the links of a downloaded website, but such functionality was not found. Web Sphinx, on the contrary, is an application that allows obtaining a graphical tree with all the nodes that form a website. Nevertheless, it has mainly two problems. First, it cannot generate a complete view of the website; that is, although it obtains all the nodes (pages) of the website, it does not represent all the links, but only a connection to every page, the first access, as it were. Therefore, information is incomplete (see Figure 1). In spite of offering a graphical interface it is not sufficiently rich for navigation recording purposes.

![Graph generated by Web Sphinx.](image)

We decided to use the base of Web Sphinx, making some modifications to obtain complete maps of nodes and links of websites. It was necessary to add a programme that allowed the graphical visualization of all the information obtained by means of Web Sphinx.

2.2. Graphic visualization of a website structure

The second requirement consists of graphic visualization of all the information gathered by means of Web Sphinx. Diverse solutions were analyzed, among which the following were selected:

- Graphviz: [http://www.graphviz.com](http://www.graphviz.com)
The three programmes offer very good functionalities. Particularly, yEd offers the most interesting algorithms of visualization arrangement to help study the generated graphs. That is highly relevant, because a same graph can be displayed in very different layouts, and yEd provides the possibility to chose between the various algorithms, and thus to interpret the graph structure in diverse forms so that more accurate conclusions can be drawn (see Figure 2).

![Website structure graph generated by yEd.](image)

The yEd programme needs an original file (graphml) in XML format to represent the graph nodes and links. By means of the abovementioned tool, which used the base of Web Sphinx to analyze all the content of a website, that original file is generated to later be visualized with the yEd application.

2. 3. Users’ navigation records

Individual users’ navigation records can be obtained by means of a proxy squid configuration ([http://www.squid-cache.org/](http://www.squid-cache.org/)). Users’ navigation patterns can be related to the previously obtained website structure. Proxies allow for control of users’ navigation. Access to particular pages can be permitted or denied by means of a set of rules. The programme also registers the pages that a user has activated. This kind of software is used by companies in order to restrict their employees’ access to certain pages, as well as to obtain a record of the visited pages and the time allotted to the use of the Internet during the working time. As for each page, the record shows:

- The time when the page was activated
- The IP that visits the page
- The user who visits the page (if previously logged in the proxy)
- The URL of the visited page
- Possible errors, i.e. attempts to access pages that do not exist, or accessing restricted pages without access permission.

Users should configure their browser, so as to use the configured proxy. Thus, every time the user enters a page, this fact is registered and the proxy is able to record the navigation process.

2.4. Graphic visualization of navigation records and website structure information

As for interpretation of the proxy log, an application was developed, such that, given a particular user, their initial and final time of navigation, as well as the pages activated, produced a graph, analogous to the one in Figure 2. That graph includes information on the user’s navigation, so that it turns out easy to determine the mode of navigation. In Figure 3, we see an example of navigation graph.

![Figure 3. Example of navigation analysis.](image)

If a website contains a high number of pages, the information provided by this type of graph may not be adequate. In such case, the high number of nodes in the graph makes it too complicated for the researcher to carry out a precise monitorization of the pages visited. For that purpose, another report can be created that includes data from the proxy squid log (one per each user), which generates a list including all the pages activated by each user. For each page, we obtain the period of time a user has been reading it. Each page, in turn, is assigned a background colour, so that the user’s navigation mode in that page can also be determined (navigating, browsing, reading). As each user has a different language level of proficiency,
the time spans that represent different navigation modes cannot be constant values. For that reason, the reports allow for diverse time spans representing each of the navigation types, according to the user’s proficiency level.

<table>
<thead>
<tr>
<th>Número de página</th>
<th>URL</th>
<th>Tiempo de visita</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td><a href="http://www.uji.es/">http://www.uji.es/</a></td>
<td>5.709 segundos.</td>
</tr>
<tr>
<td>1</td>
<td><a href="http://www.uji.es/">http://www.uji.es/</a></td>
<td>0.771 segundos.</td>
</tr>
<tr>
<td>2</td>
<td><a href="http://www.uji.es/">http://www.uji.es/</a></td>
<td>0.771 segundos.</td>
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<tr>
<td>3</td>
<td><a href="http://www.uji.es/">http://www.uji.es/</a></td>
<td>0.771 segundos.</td>
</tr>
<tr>
<td>4</td>
<td><a href="http://aulaviirtual.uji.es/">http://aulaviirtual.uji.es/</a></td>
<td>0.771 segundos.</td>
</tr>
<tr>
<td>5</td>
<td><a href="http://aulaviirtual.uji.es/login/index.php">http://aulaviirtual.uji.es/login/index.php</a></td>
<td>0.771 segundos.</td>
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<tr>
<td>6</td>
<td><a href="http://aulaviirtual.uji.es/login/index.php">http://aulaviirtual.uji.es/login/index.php</a></td>
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<td><a href="http://aulaviirtual.uji.es/">http://aulaviirtual.uji.es/</a></td>
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<td>11</td>
<td><a href="http://aulaviirtual.uji.es/login/index.php">http://aulaviirtual.uji.es/login/index.php</a></td>
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<td>12</td>
<td><a href="http://aulaviirtual.uji.es/login/index.php">http://aulaviirtual.uji.es/login/index.php</a></td>
<td>0.771 segundos.</td>
</tr>
</tbody>
</table>

**Figure 4. Example of a user’s navigation report.**

### 3. Graphs and determination of possible hyper-textual writing models

The study of the architecture of websites by means of the software described above allowed us to identify the following two models:

A) The *specular model*: Nodes are displayed and linked around a core node and, in turn, mirror each other.

B) The *modular reproduction fractal model*: A node germinates into a bunch of independent nodes.

In the website *Island Ireland*, both models are somehow represented in different sections. The website establishes relations based on reflections and intertextuality. Island Ireland is an Internet directory to Irish art, culture and environment with hand-picked links to Irish history, architecture, music, news, genealogy, travel, literature, folk culture, archaeology, and the Irish language. Island Ireland is sponsored by Island Ireland Marketplace.
The high number of internal links allows the user to access both the website contents and information related to other sites. This dynamism paves the way for the generic hybridity of the website. Several conclusions can be drawn from the analysis of the graph (see Figure 5):

(i) the top part of the graph to the left reflects a growth of the core that consists of a prolongation of some of the links.

(ii) the dense central part of the graph corresponds to a core of links, in which management functions as well as information and help functions are included; that central core is structured on the base of a specular model, where most of the nodes mirror one another, and there is a collective reflection effect.

(iii) the bottom section to the right can be viewed as a reproduction of the core on the basis of a germinative process.

Interactive aspects and external links are present in the three sections of the graph. The internal relationship between the central and bottom section is complex and interactive. Furthermore, the way it is distributed brings to light the interrelationship existing among the processes of information exchange or information flow. The analysis of this graph confirms both the specular model hypothesis (see Figure 6) and the fractal model hypothesis (see Figure 7). These are two models that can represent the writing models for information flow usually followed by website designers. The multiple reflections of information presented on the website result in a significant presence of intertextuality and genre transversality phenomena.
The frame set of the site helps navigation in two ways: contents are very clearly separated by means of frames and the frame set is repetitive. All the pages are built out of the same modules, which both makes the work of the website developer easier and helps the reader who accesses different pages in it. The graph (see Figure 7) illustrates the fractal design. A fractal (e.g. a fern) has the same structure on different levels. The site hosts several sites (which correspond to different branches), each of which was designed with the same frameset. Each of the secondary sites forms a separate module, with its own identity. At the branches, existing modules can be eliminated and new modules can be added. Each of these modules consists of smaller-scale objects which are assembled together to make up the website, but have their separate identity.

At this point, considering these results of website graph analysis, two questions arise:

- Are there any hints in the web lexicon that help the reader activate certain cognitive models or schemes?
- What role do metaphoric expressions and mappings play in the construction of such models?
4. Metaphoric Cognitive Models

Websites are hypertexts rather than texts in a traditional sense. As such, hypertexts imply a different architecture and different processing strategies. At this point, the issue of conceptualization based on previous knowledge is highly relevant for determining which models are implemented in the conceptualization of digital genres, so that the designer and the reader share a common conceptual ground. Our aim here consists in presenting these cognitive models, as well as describing their conceptual mappings in order to assess to what extent these models work interlinguistically. In a previous work we have analysed the linguistic expression of cognitive models in a set of websites in English (Navarro-i-Ferrando and Silvestre-López 2009). Our findings show regular patterns in the use of everyday ICMs in digital genres like the feature website. It is shown that the metaphorical models inserted in hypertextual websites play a significant rhetorical role in displaying interactive hyperdiscourse. Toms and Campbell (1999: 2) put it this way:

System designers use a metaphor at the point of interaction to teach the user how to manipulate the interface. The user “loads” the metaphor into the working memory [...] and the similarity between the structure of the metaphoric image and the structure of the interface enables the user to exploit prior knowledge to understand the system and work with it.

In the first place, these authors refer to prior knowledge rather vaguely; secondly, these authors consider that the user “loads” the metaphor employed by the system designer; and finally, they point at similarity between domains as the factor that enables users to exploit prior knowledge. We claim that, even though the designer triggers off the use of a metaphor, previous knowledge about the metaphor source domain is already shared by designers and users. That shared knowledge is not vague but rather well structured into conventional models based on social and individual experience (Ponterotto 2000; 2005). Moreover, rather than similarity between the structure of the interface and prior knowledge, in our view prior knowledge is mapped onto the conceptualisation of the interface structure. In other words, actual similarity between domains is not necessary. It is the users and designers’ minds where the mappings between domains are performed, so that the target domain—web environments—is conceptualized in terms of the source domain—book, travel, or house.

Metaphorical linguistic expressions like bookmark, link, map or visitor elicit the existence of underlying metaphors that offer both the designer and users a scheme for conceptualising, structuring and giving coherence to website discursive organisation. These metaphoric models guide the users’ reading and navigation, that is, they help at decision making along the process of meaning construction.

We look for metaphorical expressions and identify the domains they literally express. Then, we analyse the configuration of such domains. The users’ navigation is guided by such models, to the extent that they contribute to the users’ representation of their own navigation. For instance, the expression “visit our site” is a linguistic manifestation of the metaphor ‘USING A WEBSITE IS VISITING A PLACE’. Once a metaphor is identified, more expressions of the same metaphor, like “come in”, “back to”, “discover more”, “look around”, etc. are also detected. Thus, to what extent the metaphorical model ‘USING A WEBSITE IS VISITING A PLACE’ is part of the users’ previous knowledge? Or, to what extent is it ingrained in the users’ conceptualisation of their own navigation? Finally, how does the model help users—consciously or unconsciously—to make decisions on their reading or navigating process?

The metaphors are facets of website genres, since they contribute to hypertextual coherence. Particular metaphors are idiosyncratic of cybergenres, and they presumably characterize navigation strategies and modes.
Navarro i Ferrando and Silvestre-López (2009) classify metaphorical linguistic expressions that appear recurrently in feature websites and show the metaphors that give coherence to website structure. The authors identify and characterize source domains that map onto the target domain “feature website”, analyse the mappings, and investigate the entailments of the metaphorical model for the users’ understanding of the target domain.

| Table I: Source domains and their central elements (from Navarro-i-Ferrando and Silvestre-López 2009) |
|---------------------------------|---------------------------------|-----------------|-----------------|-----------------|
| SITE | HOUSE | TRAVEL | BOOK | NET |
| Site | Sign in | Navigation | Bookmark | External Links |
| Map | House | Navigate | Page | Net |
| “You are here” | Visit | Navigation Menu | Contents |
| Invitation | Enter | Back to… | Index |
| Sign in | Welcome | Links | Browse |
| Logging | Come in | Find (Dictionary) |
| Visiting | Message board |
| Visitors | Back to… |
| Back to …. | Visitors’ Book |
| Welcome | Browse |
| | Chat room |
| | Housemaster |
| | Password |
| | toolbox |

The domain used in the House Model is that of a house that is visited by people mainly because it hosts some social activities, events or objects. Thus, by entering the house we may be required a password or signing in a reception book so that our visit can be logged. There may be someone, the house master, who welcomes visitors and invites them to come in. Once in the house, people go around and may go back and forth visiting different rooms. Within the rooms users may browse among the objects or materials, or even may be allowed to use diverse devices or appliances, for instance a toolbox or a message board where they can post their messages for other people. Other less central elements may be a visitors’ book, where visitors are invited to write down their comments. Further elements may be added as long as the general logic of the model is maintained, for example special rooms devoted to particular purposes, like a chat room.

In the Site Model, a site master welcomes and invites visitors to go around, and they can be requested to sign in a reception book so that their visit is logged, or they may move back and forth a path. Visitors arrive at a site, which may be a rather large area, and therefore they might need a map – the site map – and possibly some directions to find their way in the site, for instance a panel with “you are here” indications. Some sites may have a shop, and an info desk where visitors get answers to frequently asked questions.

The Travel Model is constantly active through the concept “home”, which is the place where a journey begins and ends. The home is also the place that indicates the point of departure to any destination. Once en route, travellers use instruments with choice menus for navigation, i.e. finding their way to a destination. In the Travel Model the destination is not constrained by the master or maps, but users find their own way and choose their own course freely. Links make it possible for travellers to go from one place to another.
The Book Model is reminiscent of the traditional representation of the reading process as associated to paper formats. Thus, the website contains *pages* that users may *browse* through. One can go from one page to the *next page* and *back to previous pages*. There is an *index* or a *contents* table, predominantly in those sites defined as dictionaries or encyclopaedias. We can *bookmark* an interesting page, so that we can easily find it in our PC later on. In dictionaries, lexical entries can be found, and information can be *searched* for in encyclopaedias. Browsing is a useful concept in order to refer to casual searching.

The Net Model is active through the use of the expression “link”, in order to refer to activation labels. Nets are extended works where *nodes* are linked to each other, so that the unity of the whole is guaranteed as far as nodes are connected to each other.

Source domain expressions actually appear in websites. Contexts make it apparent that the thinking process is based on the source domain rather than the target domain. It may also occur that a particular linguistic expression does not coincide exactly with those displayed in Table I, which shows that the metaphor is a conceptual mechanism, rather than just an idiom or a single isolated form.

In the case of the Site Model, the most usual expressions are the words “site” and the expression “site map” or, alternatively, “sitemap”. The metaphor is fully deployed in the following example where the master’s expressions mark textual coherence according to the metaphorical model:

(1) *You are very welcome to Island Ireland… hope you enjoy your visit!... We always feel pleasure at visiting a site ... Visitors should feel free to recommend sites ... ...we have a special fondness for local sites all around the country ...*

The Site Model is reinforced in the argumentative discourse by its structural elements. Thus, visitors are welcome and invited to enjoy their visit, and can recommend the experience to other potential visitors. Finally, sites are metaphorically conceived of as places scattered geographically “all around the country”.

The House Model structural elements also appear fairly frequently. The expressions “sign in” and “log in” occur independently of co-text, because they are usually found as a label at an activation box, where users must enter their names for the system to log their usage. The *Treasure House of Indian Culture and Heritage* shows a few expressions of that metaphor that do not appear in other sites, like “house”, or “enter” as an invitation to activate the site. Most sites show a *back to* command, in order to activate previous screens. An interesting metaphorical extension consists of the addition of structural elements like the “chat room” or the “visitor’s book”, which includes visitor’s comments on the house. In example (2) the house master welcomes visitors and develops the metaphor in his introductory text:

(2) *Welcome to the Scots Language Centre on line. Please come in and have a look round. The site contains lots of interesting information [...] [...] Just move between the two languages if there are Scots words that you don’t understand.*

2 http://islandireland.com/index.html
3 http://www.culturopedia.com/
4 http://www.scotslanguage.com/
In the example we find several expressions of structural elements of the metaphor, the house master invitation, the conception of a place as a Centre with several dependencies, and the possibility to use two paths for motion – English or Scots.

We have shown some examples of linguistic expressions that occur as evidence of the existence of conceptual metaphors in websites. The metaphors help users interact and “read” the hypertexts. Moreover, users’ minds need to import models from previous experience in order to process, structure, and reason about the new domain. The mental mechanism that allows for that process is called mapping. Mappings are projections from a source domain onto a target domain, so that the topology and the logic of both domains are maintained. However, not the whole structure of the source is mapped onto the target, nor the target domain adopts its entire structure from a single source domain. Each source domain contributes only certain aspects which are useful for understanding particular aspects of the target domain.

Table II shows the structural correspondences between the source domain house and the target domain feature website.

<table>
<thead>
<tr>
<th>SOURCE: HOUSE</th>
<th>maps onto</th>
<th>TARGET: WEBSITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>House</td>
<td>System</td>
<td></td>
</tr>
<tr>
<td>Logging</td>
<td>Activation Record - Log in</td>
<td></td>
</tr>
<tr>
<td>Sign in</td>
<td>Registering one’s identity</td>
<td></td>
</tr>
<tr>
<td>Enter</td>
<td>Activating the system</td>
<td></td>
</tr>
<tr>
<td>Visit</td>
<td>Read/use the system</td>
<td></td>
</tr>
<tr>
<td>Visitors</td>
<td>Users</td>
<td></td>
</tr>
<tr>
<td>Invitation/Welcome</td>
<td>Making the system overtly available</td>
<td></td>
</tr>
<tr>
<td>Come in</td>
<td>Begin to use the system</td>
<td></td>
</tr>
<tr>
<td>Back to…</td>
<td>Activate previous screen</td>
<td></td>
</tr>
<tr>
<td>Message board</td>
<td>Screen for communicating with other users</td>
<td></td>
</tr>
<tr>
<td>Visitors’ Book</td>
<td>Screen to record the users opinions</td>
<td></td>
</tr>
<tr>
<td>Browse</td>
<td>Casual screen activation</td>
<td></td>
</tr>
<tr>
<td>Chat room</td>
<td>Screen for on-line communication</td>
<td></td>
</tr>
<tr>
<td>Housemaster</td>
<td>Website designer</td>
<td></td>
</tr>
<tr>
<td>Password</td>
<td>Code for activation permission</td>
<td></td>
</tr>
</tbody>
</table>

As illustrated in table II, given that source domain models rely on users’ experience of known concepts and interaction patterns, they contribute some structural elements that make it easier for users to conceptualize target domains. Some source domains map onto sequential aspects of website use. For example the Travel Model makes us think in terms of how to reach destinations, define routes and find connections between places. The Book Model maps onto informational aspects, like storing, finding or classifying information. Finally, the Site and House Models both map onto interactional aspects of websites, so that users understand interaction with web systems in terms of a visit to a house or site, and therefore interact cognitively using the behavioural patterns they are familiar with.

Some elements of the target domain may receive a projection from more than one source domain. For instance the list of sections can inherit the features of a site map or a table of contents, depending on the kind of source domain. As a consequence, each source domain will provide a set of entailments for reasoning about the target domain. In fact, we do not
think in the same way if we imagine a map on a poster or a contents table on a book page. That is why each source ICM contributes different reasoning patterns.

The mappings are cognitive guidelines that each source model contributes to our understanding of websites as discursive organizations. Consequently, each model will prompt its own inferential patterns when users grant it cognitive priority in the process of using a website. If users prime the House Model, their first decisions might focus on the home page in order to become familiar with the webmaster’s background and purpose. Secondly, if the Travel Model is preferred by the user, the first option might possibly be to click on external links, or try to find out where the navigation can lead to. Thirdly, if the Book Model prevails, the user could look for concrete information in the page, and presumably would activate the site map or contents table as a first option. The reading mode prompted by the Book Model might consist in using a page at a time and going from each page to the next one.

Not all the websites are configured in the same fashion, and some use a particular model more frequently than other models. The designers’ interests and representations can grant more weight to a particular model, depending on what they expect from the website user. Thus, online dictionaries and encyclopaedias may display a higher frequency of Book Model expressions. On the other hand, sites that display the House and Site metaphors more profusely show an overt intention to attract and gain fans with interactive purposes.

5. Interlinguistic validity of metaphoric models

Many studies about the language and terminology in the Internet have appeared in recent years, but only very few address the influence of English terminology on other languages or linguistic communities. The fact that the Internet is practically an American invention that was exported to the world in the last decade of the 20th century caused that the majority of concepts and models coined by the American digital community had to be adapted, translated or just calqued into the rest of languages and cultural communities. These started to use the web only several years after the medium had been operative in the U.S. The expressions that other cultures use to refer to the Internet are the key to understand how it is conceived and experienced and will therefore affect the way in which those cultures interact with and reason about it. Digital genres are already generalized in our daily life and we know as users how to interact with them. However, the models we use as members of a particular culture may be somehow different to the models of the English speaking culture, where most of the digital genres originally emerged. A few authors have already called attention to this issue (Porto-Requejo 2008, Tokar 2008).

Porto-Requejo (2008) describes several major metaphors in English for the conceptualization of the Internet such as the INTERNET IS A CONTAINER (download, upload, search), THE INTERNET IS AN ENCYPLOPAEDIA (webpage, browse, browser, bookmark), or THE INTERNET IS OUTER SPACE (cyberspace, internaut, navigation). Nevertheless, according this author, the most productive metaphor in English is THE INTERNET IS A CITY. That is the metaphor that has mostly contributed to the conceptualization of the new medium and, therefore, to the generalization of thinking and behavioural patterns for interaction with that medium. The city metaphor facilitates reasoning about the Internet in terms of a place where “we find online shops, online banks, online libraries, online education... besides e-business and e-commerce, just the same as in a big city” (Porto-Requejo 2008: 201). In addition, the metaphor is constantly reinforced by the use of metaphorical expressions like, build a site, site under construction, address, virtual tour, traffic, build site protection, Internet citizens, Internet community, sites hosted in a server, visit a site, etc. For English speaking users this metaphor provides a comfortable model that makes it easy to see the Internet as a city where people
move around, visit sites and go shopping, rather than imagine a flow of data at high speed along the wires that link millions of interconnected PCs all around the world.

If we look at the terms used in Spanish or other languages, it becomes apparent that the metaphors have not been transferred as wholes to the host culture, but each linguistic term has found its own particular translation (Tokar 2008). As a result the original metaphors, which help English users as effective cognitive tools for reasoning about and interacting with the Internet as new medium, are only partially at work in the minds of users from other cultures. For several reasons THE INTERNET IS A SEA has emerged as a Spanish metaphor for the Internet. The word “navigate” has been translated into Spanish as “navegar”, which means “sail” and “hacker” is equivalent to “pirata” (pirate). The fact that these terms are used and entrenched in the Spanish culture makes it easy for the community to adopt the metaphor and add more structural elements from the source domain. Thus, terms like “internauta”, “navegador”, “surfear”, “portal”, cause Spanish users to build a different script for using the medium and, as a consequence, to reason about and interact with it in a rather different way to English speaking users.

Whereas for English speakers, the Internet is a familiar place, a city full of services to wander around and search for anything they may need, a community of citizens that follow the rules, for Spanish speakers, it is a foreign place, a dangerous, unknown sea that must be explored to find what you want, but where you must be aware of pirates and other dangers with foreign, untranslated names.

Given such contrasting conceptualizations of the Internet in English and in Spanish, the question arises if the construction of so different mental pictures of the concept can affect the interaction of English and Spanish speakers with the Internet, especially for beginners, who learn about the Internet before actually using it. (Porto-Requejo 2008: 205)

It has been shown (Oster 2009) that vocabulary acquisition both in a foreign and a native language implies the existence of conceptual interconnections and that meaning is defined in terms of multiple semantic relations among concepts that very frequently imply cultural connotations. On the other hand, frequent cooccurrence with other lexical units may cause reciprocal influence on the semantic change of particular items (Oster 2009: 47). Thus, the cooccurrence of certain hints like “pirata”, “navegar”, “internauta”, “rumbo”, etc. may cause the emergence of a model for digital environments which was not entrenched in the original cultural community.

6. Conclusions

We are living an era of new literacy that demands cognitive pragmatic model variations which guarantee our understanding of new forms of texts. In that connection, behavioural patterns, schemas, and cognitive models that exist in the cultural background of both designers and users facilitate the management of new cybergenres. Users achieve that goal by means of mapping the already acquired knowledge structures onto the emergent generic tools. In spite of variations in cognitive pragmatic models across texts and cultures/languages, the essentials of several basic models seem to prevail, like the house or book models.

We suggest that particular information flow types that underlie websites architecture, like the specular model or the fractal model, are reflected in the user’s interface as metaphorical expressions that, in turn, activate mappings like the house model or the travel model. The rhizome structure is maintained by means of a series of interrelated links among which outstanding ones (which coincide with key vehicles in each of the models, for example “map”,

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“back to”, “home”, “menu”, “bookmark”, “contents”, “sign in”) are always present in every page of the website. The two structural schemes that underlie website architecture, the mirror model and the fractal model, can be visualized with graph software tools. We have shown some of the ICMs that serve the function of providing linguistic expression to interface usage models of websites. Metaphorical linguistic expressions are the hints in the web lexicon that help the reader activate certain cognitive models or schemas. In view of the study presented in this paper, it seems quite safe to state that users constantly find hints in the web lexicon that allow for the triggering of rather common previously acquired cognitive models which are pervasively extant in our everyday activities. This paves the way for a felicitous and continuous flow of information in both ways (codification and decodification). In terms of specifics, for example, hints like “visitors”, “discover”, “enter”, or “leave” trigger basic everyday frames (Fillmore 1982). These expressions become the vehicle of metaphors like USING A WEBSITE IS VISITING A PLACE. Then, they activate the roles of their “real-life” counterparts and hence their ordinary functionality, ready to be used in a virtual environment.

Apart from endowing website discourse with the coherence and organization necessary to process information, metaphorical ICMs build our idea of a particular cybergene, and of the way such a genre is configured. ICMs may show different ways of representing a cybergene, and may also signal different modes of wreading.

Nevertheless, English schemas and ICMs, as a source for international terminology, may sometimes lead to ill translations and misleading calques in other languages. Such mismatches may cause the lack of transfer of previous knowledge from the source culture into coherent models or schemas in the target culture.

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A Critical Approach to Multiliteracy: *Automates Intelligents*¹

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**Abstract.** In this paper we present and analyse a website with a complex rhizomatic structure in connection with the results of a cybertask in which students were asked to read various information sources by navigating a range of websites. The results and discussion include issues such as: a) culture of learning and students’ task representation; b) possible relationships between learning styles and ways of navigating and managing information to solve a task; c) criteria students use to evaluate their navigation practices.

**Keywords:** Multiliteracy, autonomy, learner culture, cybertasks, learning styles

1. Introduction

“A critical approach to multiliteracy: *Automates Intelligents*” analyses a website with a complex rhizomatic structure. We examine its architecture in relation to the results of students’ navigation during a cybertask. The cybertask involved students’ reading various information sources using external and internal links on the *Automates Intelligents* website, which is characterised as multilinguistic, multimodal (graphics, images, videos, audio recordings), interactive (search tools, e-mail, blogs) and rich in internal and external links.

The difficulty of the task was offset by placing it in context through a previous teaching-learning process to familiarise students with the subject and enable them to understand the cybertask questions. This prior experience gave meaning to the information search on the proposed website. The task was designed to incorporate features of what we consider to be the latest generation of WebQuests: a) includes resources that incorporate a gateway to the web; b) proposes a task dynamic that favours cognitive strategies for knowledge building: relate the type of reading to the task goals; find the aspects in the text that are relevant to the search being made, and relate them to information found in other texts (develop field independence); construct analogies and contrasts, establish inferences, generalise, creates synthesis, etc.; c) involves the development of autonomy related skills: methodological, cognitive, and metacognitive skills. Through the task results and the students’ self-evaluations we hope to contribute to defining criteria in the design of what we term “cybertasks”.

The principles behind this research and the design of the cybertasks are based on a socio-constructivist approach. The cybertask we propose here may thus be considered as an initial test from which we can draw conclusions on students’ previous knowledge and skills. Bearing in mind the essential interactivity between the three sides of the pedagogical triangle (teacher, student, resources) we aim to answer the following questions:

- What are the features of our students’ teaching-learning culture?
- What representation of digital texts do they have and what should be the foundations for the teaching-learning dialogue on the use of Internet resources?
- Are navigation strategies and learning styles related?
- Are website architecture, learning styles and students’ navigation maps related?

¹ This research has been financed by project HUM2005-05548/FILO of the Spanish “Ministerio de Educación y Ciencia”.
• Can navigation models or patterns be identified? With what criteria?

The latter two questions will be dealt with in other publications once the data analysis process is completed. In the present study, we present the results and discussion on aspects relating to students’ representations such as: a) perception of the structure of the digital texts; b) conception of the learning tasks and the information search; c) their habits in using different languages to access information content; d) their level of satisfaction with their management of various information sources to carry out a selection and synthesis adapted to the task objectives; e) degree of familiarity with and use of hypertext navigation, multimodality and interactivity.

2. Materials and Resources

*Automates intelligents* is a website designed to spread information and present articles on science and society, particularly on aspects of artificial intelligence. The articles on *Automates Intelligents* are hosted on the Kiosque of the French Institut de l’Information Scientifique et Technique (INIST) at the Centre Nacional de la Recherche Scientifique (CNRS).

The website is closely linked to a larger website *Admiroutes Sciences, techniques et démocratie*, which receives between 800 and 1200 visitors per day and was originally set up by public authorities to encourage the introduction of ICT into the French administrative system. This website has an associated site that defends the independence of Europe as a scientific and technological force: *Europe puissance scientifique* and offers links to the Association PanEurope and the journal *Europa++*, which has the collaborative support of *Automates intelligents*. In addition, *Admiroutes* has its own journal, *La Gazette d’Admiroutes Démocratie et nouvelles Technologies*, but is also publicises and hosts the *Automates Intelligents* site and two types of associated publications: firstly it lists the *Automates Intelligents* catalogue and presents its book collection (produced in paper form by the publishing house Vuibert, part of the Albin Michel group, and also available through Amazon) and, secondly, it hosts the free monthly journal *La Revue. Robotique*.

The close, inclusive relationship shared by these websites meets two criteria: a) the reflective scope and specific objectives of each site: democracy and new technologies in the case of *Admiroutes*, science and society in the case of *Automates Intelligents*, and European political science in the case of *Europa++*; b) common objectives or shared ideology: the spread of knowledge, and the use of Internet and new technologies as tools to serve democracy and development.

The blue shades and logos used create an effect of unity between the two websites. The *Admiroutes* compass rose logo, which alludes to Larousse’s famous motto *Je sème à tout vent*, is a generic link on *Automates Intelligents*. A further icon used by *Admiroutes* is the mirror, and the *Automates Intelligents* website is publicised on the *Admiroutes* page as a mirror site: *Le site miroir d’Automates Intelligents* (“site de travail et d’archivage”). This reference to the work and archiving process is explained by the fact that the *Automates Intelligents* site incorporates two knowledge diffusion systems: the pre-publication of articles on the site, which allows readers to consult work in progress, and the e-journal *Automates Intelligents*, the archives of which are also available through the INIST Kiosque and *Admiroutes*.

The bilingual (French and English) presentation of *Automates Intelligents* in *Pourquoi ce site?* corresponds to an editorial written by Jean-Paul Baquiast and Christophe Jacquemin in October 2000. This date marked its appearance as a generic internal link that may be consulted as an introduction to the site and to the journal of the same name. This presentation clearly explains that the *Automates Intelligents* site was created to spread knowledge, to reach a wide range of sectors in the community, and to use Internet resources to facilitate the
publication of work and interaction between scientists and citizens. As stated in Baquiast and Jacquemin’s editorial, the Automates Intelligents website aspires to contribute to the spread of knowledge from an interdisciplinary perspective. It is presented as a “French site” pursuing plurilingual and Europeist ideals. Its philosophical and political conception makes an explicit commitment to the spread and democratisation of knowledge, and to that end it aspires to promote interactivity with its readers. Automates Intelligents is a partner of the science.gouv.fr portal, a scientific Internet reference aimed at a wide public, and of the Futura Sciences website, for its dossiers on artificial intelligence.

Our description begins with the first page of the Automates intelligents website, which we consulted at various times to check any possible variations. An increased use of multimodality and interactivity was noted in sections such as A voir, Voir l’émission, A écouter, Chat. In previous consultations, made from June to October 2006, sections such as Blog Échanges, Proposez vos manuscrits and Courrier already existed, but audio and video, and links to mass media broadcasts did not feature so predominantly as they do today.

The website pages have blue margins containing the generic links present in all the pages. The main navigation menu is found on the left, together with the logo, which is activated as a link to Admiroutes. Numerous external links both in French and in other languages appear, classified by subject. These are accessed through the menu’s Liens utiles link. Generic internal links appear at the top and the bottom; at the top: the Automates Intelligents logo, Help, Site map, Subscription and Contact, and a dynamic link that provides access to the Automates Intelligents journal collection. At the bottom of the page the team and the editorial staff are presented, along with the list of partners, and subscriptions and contact information. Some of these links are repeated at the top and the bottom because the nature of the page frequently makes scrolling necessary. The right-hand margin offers various types of links: tools for searching both the site and the Web; subscription to the monthly newsletter, the link to which provides access to consult back numbers through the INIST Kiosque a link to the publishing house Vuibert for the purchase of books from the Automates intelligents collection; a link to the page with information on how to submit manuscripts; a link on automatons in the press, radio and television media, that offer audio and video, and an internal link to Paul Baquiast and Christophe Jacquemin’s editorial, Pourquoi ce site?

The central section of the homepage is divided into two parts. The first part includes advertisements related to the site (for example the journal Paneuropa++) and announcements and links to two blogs: Le blog d'Automates Intelligents and Le blog de Philoscience. The second section in the central part illustrates different current topics with coloured images on a white background. These consist of summaries offering links to further reading on these news items, articles and interviews. Finally, the column to the right of centre lists news items chronologically by date and title, the text of which is activated as a link to the full news item. The numerous internal and external links allow the user to both cross-reference site contents and access related information on other sites and original articles for which summaries and reviews are provided. This dynamism opens out the website to reveal its multilingual facet.

The colours of the C-map (Figure 1), illustrating the description given above, correspond to the following link types:

- **Actions** (search, purchase, subscribe...)  
- **Generic internal links** (appearing on all the website pages)  
- **Semi-generic internal links** (appearing on all pages at the same level)  
- **Intra-page command**  
- **External links**
Figure 1. C-map representation of the *Automates Intelligents* website

**NOTE**

Generic Icon of AI website

Menu with tool-type generic links

Level 2 page index:
menu with 13 generic links to sections

News
11 internal links with date and headline

2 internal links to blogs

1 internal link to editorial dated 2 August 2006:
image, beginning of text and access to Level 2

3 internal links to articles:
image, beginning of text and access to Level 2

3 internal links to articles:
image, beginning of text and access to Level 2

Generic internal link to level 2 page

where external links are found to AI in the media
Multimodality

2 internal links

4 internal links to Biblionet:
image, beginning of text and access to level 2 + 4 internal links

5 internal links to articles:
image, beginning of text and access to Level 2

4 generic internal links that lead to information on Level 1

External link animated text Kiosque

1 external link

1 external link: interview web

List of external links in level 2
Generic link of Admiroutes hypersite

Action search
Action subscribe
Action purchase
Action submit manuscripts
Animation

Intra-page command

Retrospectively since October 2006
October 2000
Art Imaginaire Archives
Du côté des labos index

**2.2. Website Multigenericity and Intertextuality**

The website is clearly intergeneric. The *Automates Intelligents* terms “archives”, “monthly publication”, “editorial”, the “monthly” “journal” and “subscription” (free) refer to the e-journal but the site also has blogs, forums, chats and links to press articles, and radio and television broadcasts. Moreover, the boundaries of known generic structures are blurred and open up into other texts, which leads to a tendency to blend genres that facilitates intertextual relationships. This aspect is illustrated by the website’s virtual library page Biblionet, which presents an informative text that includes a critical review of a publication on humanoid robots. In this text, the comments written by website staff are interlinked by the phenomena of
intertextuality with other critical comments from the book’s publishers and with graphic schemas proposed by the publishers, and an external link is provided to their web page. The text also includes links to related subjects that take the reader to online articles, to sales information with links to shops selling robots like ROBOpolis, to bookshops and even to an advertisement for a show at Futuroscope.

Not only is Automates Intelligents solidly intertextual because of its spectacular structure, but it also contains a large variety of genres: news, articles with a structure of links that open onto the Web, chats, blogs, etc. One illustration of this facet is its publications index where the visitor can select a back number and access the content index Actualité Archives. For example, one might select “Un robot contrôlé par des neurones de rat” which at the same time contains a selection of internal and external links in different languages: “Pour en savoir plus: Lire notre article plus complet, rubrique Du côté des labos”; “Communiqué de presse de l’Université de Reading (en anglais): Press releases”.

This diversity of registers reflects the site’s dissemination policy, but also its determination to serve the scientific community as an instrument for diffusion. Hence, Automates Intelligents has become a manager of polyphony and multimodality. The boundaries of known generic structures are blurred and open up into other texts, which leads to a tendency to blend genres that facilitates intertextual relationships. This aspect is illustrated by the website’s virtual library page Biblionet, which presents an informative text that includes a critical review of a publication on humanoid robots. In this text, the comments written by website staff are interlinked by the intertextual phenomena with other critical comments from the book’s publishers (FYP) and with graphic schemas they propose, and an external link is provided to the FYP web page. In addition, the text includes links to related subjects that take the reader to online articles, to sales information with links to shops selling robots such as ROBOpolis, to bookshops and even to an advertisement for a show at Futuroscope.
Figure 2. Example of intertextuality in Automates Intelligents

Les robots….. INTERNAL LINK leading to EXTERNAL LINK Futurescope…

INTERTEXTUAL CITATION of presentation in Fypeditions (link in footnote)

INTERTEXTUAL SCHEMA appearing in the presentation of FYP editions
CRITICAL REVIEW of *Automates Intelligents*

EXAMPLE AND SUPPLEMENTARY INFORMATION for more in-depth reflection.

LINKS TO SHOPS AND BOOKSHOPS FNAC and Robopolis

ANNOUNCEMENT ……Futuroscope

LINK TO BOOK PRESENTATION IN FYP EDITIONS where schemas and citations are found

ADVERTISMENT:
Characteristics of the book written in informal register:
Price, quality, originality, points of sale, etc.

2.3. The webpage architecture: spectacular hypertext and graphic structure

*Admiroutes* introduces itself (in French and English) as follows:

We have initiated Admiroutes web server and community 4 years ago. The idea was to encourage modernization of public administration by using systematically Internet. One may remember that in 1995-96, France in general and government specifically were not at ease confronted to this technology and the new behaviors generated by it. As enthusiastic internauts, we had to do something. So we launched this small vessel www.admiroutes.asso.fr. Our initiative was purely private and non commercial. Civil servants who accepted to participate did it on a voluntary basis, without any support from administrations, and at home, during their leisure time. We paid collectively the expenses, without accepting publicity. One can consider to day that Admiroutes is relatively a success. The name is pretty well known and refered by portals. The server registers an average of 800/1200 distinct visitors a day. Thousands of pages are monthly telecharged or printed. More than 50% visitors come from not francophone countries, which is encouraging as the site is still entirely in french, by lack of money and time for translation. Our Gazette is distributed to some 1000 free subscribers, who receive it in their mail-box every fortnight.

*Admiroutes* currently hosts series of sites with varying functions, but which are closely related and make up a type of subject-based network with contents that interconnect through *Admiroutes*, which acts as a distributor and amplifier of information on the sciences, technology and democracy. *Admiroutes* uses the metaphor of mirrors to refer to *Automates Intelligents*. The magazine *La Revue Robotique, Vie artificielle et Réalité virtuelle*, located in *Admiroutes* is described as a mirror site, “Le site miroir d’Automates Intelligents (site de travail et d’archivage)” and shares headings such as “Feuilleton” or “Du Côté des labos” with *Automates Intelligents*. The *Automates* website is announced on the first page of the *Revue* and the relationship between INIST\(^2\), *Admiroutes* and *Automates Intelligents* is made perfectly clear. The mirror effect is explained as part of the knowledge creation and diffusion process:


\(^2\) Institut de l’Information Scientifique et Technique du Centre National de la Recherche Scientifique:
site est aujourd'hui hébergé par l'INIST, choix dicté par notre volonté de bénéficier de la plus large des audiences sur un sujet qui nous semble fondamental en ce début de siècle. Une publication régulière d'informations et de textes extraits du site, sous forme d'une revue bi-mensuelle (mensuelle depuis le 1er janvier 2003) par abonnement gratuit, est assurée sous notre direction. Par ailleurs, nous publisons sur le site d'Admiroutes, sous la présente adresse, une revue mensuelle Automates Intelligents, qui nous servira de réserve de textes en pré-publication destinés à alimenter le site Automates intelligents et la revue. Cette technique nous permettra également d'obtenir le cas échéant la pré-lecture de certains articles par les personnes intéressées.

The diversity of versions among Admiroutes–Automates Intelligents–La revue–Automates Intelligents creates a play of mirrors in which amplifications, variations and points of intersection are all present.

Figure 3. The mirrors metaphor

The graph produced with WebSPHINX, a program that browses and processes Web pages automatically (a web crawler, also called a robot or spider), and the editing program yEd Graph Editor, which enables the structure to be visualised, confirms the structure of the mirrors that are also multiplied by the existence of numerous external links as seen above in the conceptual map (Cmap) representing the link types.

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3 WebSPHINX: [http://www.cs.cmu.edu/~rcm/websphinx](http://www.cs.cmu.edu/~rcm/websphinx)

4 yEd Graph Editor: [http://www.yworks.com/products/yed](http://www.yworks.com/products/yed)
3. Description of the cybertask *Actualidad y futuro de la Robótica y de la Inteligencia Artificial* (*Current situation and future of Robotics and Artificial Intelligence*)

The *Automates Intelligents* website described above is the starting point for the cybertask *Actualidad y futuro de la Robótica y de la Inteligencia Artificial*[^5]. It is an educational and training exercise for students of French as a second language within the context of the “Second Language and Literature III (French)” taught at Universitat Jaume I of Castellón as an optional subject for English Philology students and as a Free Choice subject for students on other courses. It is related to subjects covering work on knowledge transmission, myths and legends, stories of anticipation and popular scientific text discourses. The cybertask activities required students to relate previous work done on the subject within a conventional class context using other resources (audio documents, video, debates, etc.) to information available in the Web resources referred to in the description of the cybertask. They were asked to respond to a series of questions on the current situation and the future of robotics and artificial intelligence, basing their answers on information from the Web and evaluating the reliability of the sources. The questions are presented in Figure 5 (the cybertask is referred to as “Activity 4” since it comes within the framework of previous activities on human-form robots):

Activity 4

1. Present all the information you’ve gathered and, following a group debate, try to reach a consensus over the answers to the following questions:

- ¿Cuáles son las tendencias actuales de la Robótica? Ejemplos y referencias Web.
- ¿Cuál es la realidad y la vigencia de la investigación sobre robots humanoides? Ejemplos y referencias Web.
- ¿Cuál podría ser una clasificación de los tipos de robots según sus funciones y aplicaciones? Ejemplos y referencias Web.
- ¿Cuáles son los retos actuales de la investigación sobre la inteligencia artificial? Ejemplos y referencias Web.
- ¿Podrán los robots realizar todas las tareas que realizan hoy los humanos?
- ¿Cuáles son ya y podrán ser en el futuro las aplicaciones en el campo de la medicina? Justificar con informaciones obtenidas y decir las fuentes.
- ¿Los robots mecánicos dejarán obsoletos los transplantes orgánicos?: SI; NO; ¿Por qué?
- ¿La inteligencia artificial tiene limitaciones insalvables en relación con el pensamiento humano?: SI; NO; ¿Cuáles?
- ¿Pueden plantearse problemas éticos?: SI; NO; ¿Cuáles?

Figure 5. Activity 4 of the Cybertask

Activity 4

I Present all the information you’ve gathered and, following a group debate, try to reach a consensus over the answers to the following questions:

What are the current trends in Robotics? Give examples and web references.

What is the current situation and validity of research into humanoid robots? Give examples and web references.

How might robot types be classified according to their functions and applications? Give examples and web references.

What are the present challenges facing researchers on the subject of artificial intelligence? Give examples and web references.

Will robots be able to do everything humans can do today?

What are their present and possible future applications in the field of medicine? Justify your answers with information you’ve found and cite your sources.

Will mechanical robots make organ transplants obsolete? Yes? No? Why?

Does artificial intelligence have insuperable limits as compared to the human thought process? Yes? No? What are they?
Might ethical problems arise? Yes? No? What are they?

The complexity of this task lies in the fact that word-for-word answers are not to be found on the webpages. The questions are worded in such a way that students must look for examples and justifications for their answers, and because of the nature of the webpages, students must read in a non-linear way and cannot simply “copy and paste” but must construct their answer by comparing and contrasting information from the various links.

From an educational and research perspective this cybertask departs from traditional language teaching-learning schemas because of its highly complex nature. It was devised to discover whether students were capable of taking advantage of the multimodality offered in the webpages to solve the task, and aims to strengthen and assess non-linear hypertextual reading skills.

Activities were carried out prior to the cybertask as part of the necessary data gathering research stage. These activities required the students to complete two tests, the results of which provided essential information on their profile and characteristics for subsequent interpretation of the navigation data obtained during the cybertask. One learning style test provided information on the students’ learning profile, and a level test, based on European Language Portfolio criteria, gave us information on their command of various communicative competencies. Finally, after completing the cybertask, students were asked to fill in a self-assessment questionnaire on their performance of the task. These tests and questionnaires can be consulted in the annex to this monograph.

In addition, as a complement to this activity and within the context of the course subject, a discussion forum was set up for students in which they could freely express their feelings about and reactions to the cybertask after its completion. The students’ comments helped us shape our interpretation of the results and the data.

4. Results of the Cybertask: difficulty in managing complexity

This French as a foreign language cybertask was performed by 13 students at Universitat Jaume I. All of them studied French as their second foreign language, after English, and had levels ranging from A2 to B1 in the language according to the European Language Portfolio scale. Although the size of the sample is limited, the results were sufficiently significant to enable us to draw initial conclusions on the behaviour of university level foreign language students when faced with a task that involved browsing, navigating and reading Web resources in which hypertextuality and multimodality were important features. The task also required students to construct new knowledge by selecting and synthesising information.

Because of the small sample size, the percentages given in the figures are of no statistical value, but they are used to illustrate the qualitative analysis of the data.

4.1. Self-evaluation questionnaire

We obtained information on the following aspects from the overall results of the self-evaluation questionnaire:

a) **Technical IT skills** used in performing the task. Seventy percent of the students were competent in and used various computer tools: Internet searches, text processors, email, etc.; 30% showed a lack of technical competence during the task, for various reasons: lack of knowledge about the subject, inability to find the right thread, weariness with Internet searches, slow typing skills and “eye fatigue”.

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b) All but one student answered the question **which skill would you like to improve**, with responses ranging from a vague “all”, to information search and selection criteria and the more advanced programming and Website creation skills.

c) Regarding the **criteria** used to select information during navigation, Figure 6 shows that 70% of the students used keyword searches as their first criterion, followed by importance of the information content and how easy the pages were to read in relation to knowledge of the language (40%):

![Figure 6. Selection criteria](image)

Keywords was the most commonly used criterion for selecting webpages, doubtlessly as a result of the widespread use of this information search method in general Internet use. Some students considered the absence on the *Automates Intelligents* website of any space to search by keyword, similar to that of google, to be a drawback: “not knowing how to formulate the exact expression and have *recherche* look for it was a problem for me”,

d) The results on **information management** efficiency (see Figure 7) provide data on two aspects: a) on the use of resources and b) on students’ perception of them. The majority (80%) used the resources by randomly consulting the links offered and subsequently selecting those of most interest to them. The same percentage of students handled the information from documents in different languages; recall that these students were all bilingual (Spanish and Catalan) and studying French as a second foreign language.

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6 The values in the circular figures correspond to the percentage of students that chose the option “for me it is the essential criterion” from the scale: “I don’t consider it”, “It is important, but does not determine my decisions”, “It is a criterion I very much bear in mind” and “For me it is the essential criterion.”
Students perceived the resources as follows: half claimed that the links dissipated their search, while only 20% stated that they helped them to understand.

e) The following figure shows students perception of the webpages’ interactivity and the use they made of this possibility to interact with the page and with other users. This figure includes the responses “often” and “nearly always” in the scale: “rarely or never”, “sometimes”, “often” and “nearly always”. Seventy percent of the webpages consulted by the students offered interactive resources such as blogs, forums, chats, e-mail, etc.; however only 20% made use of these “often” and 10% used other interactive resources on their own initiative (personal e-mail, virtual classroom, etc.) to resolve doubts or exchange information.

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7 The values in the circular figure correspond to the percentage of students that identified with each one of the statements related to information management (Part 1 Section 3 of the self-evaluation questionnaire, see annex).
f) The **webpages most highly valued** and considered most interesting were those that reminded the students of other pages they usually use or that offered immediate information, e.g.: “the PEKEE because it provided information on different types of robots”, “www.pekee.com because the structure of the page seemed easier to understand and google.es because it’s a page I know well”, “I thought robopolis.com seemed interesting because of the different robot types I saw”.

**g) Comprehension of the foreign language** is not a determining factor for performing the task; all the students indicated that the French language had not given them major problems: “French is easy to understand because of its similarities with Spanish”, “I read all the pages in French and more or less from the context I was able to understand them”. The greatest difficulties were caused by the density of the information provided: “it wasn’t the language, but rather the fact that I couldn’t find the information”, “so much information made it a bit confusing”.

**h) Regarding previous knowledge** on the subject of the cybertask, 60% had some notion and 20% were fairly well acquainted with it. The activity took place within the context of the course syllabus and students had done prior introductory activities in class. Only 20% claimed to have had no previous knowledge on the topic.
i) We used a bar graph to represent the results of the students’ degree of satisfaction on their performance of the task, as this allowed us to cross data; first the items evaluated: i) on the use of Internet to complete the task, ii) to find new information, iii) to build new knowledge, iv) on the individual work, v) the use of the foreign language to access general information, and vi) on the influence of the use of Internet and the information search tasks to improve their knowledge of the foreign language; second, the value scale indicating the degree of satisfaction: i) low, ii) medium, iii) high, iv) very high.

Figure 10. Degree of satisfaction in performing the task

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j) Other evaluations and comments from the students were related to the difficulty of finding the required information, the complexity of the Automates Intelligents website, the number of pages accessible from it and finally the specialised nature of the subject.

k) Only three students mention strong points in performing the task: “the search in other pages”, “synthesis capacity”, “it is not a new subject for us”, “we have worked on robots in class”. The remaining students only responded to the weak points: “I wasn’t able to answer some of the questions”, “it took me a while to work out the Automates Intelligents webpage”, “I didn’t find the information I was asked for”, “ability of expression”, “the excessive number of unclear links for the questions set”, “the page wasn’t particularly attractive or visual”, “my lack of motivation about the subject”, “too many links”, “it would have been easier to respond to the questions by referring to other pages like google.es”, “the task was fairly complex”, “perhaps the problem was that the answers didn’t appear as such, but we had to read various pages and then put our answer together”.

Indeed, this final comment perfectly describes the purpose of the task; this however was perceived negatively by the students.
5. Discussion and partial conclusions

In this chapter we give a foretaste of some elements for discussion that will subsequently be examined in relation to the results of tasks on other languages presented in this monograph, and with later studies:

a) Both help resources and interactivity options are underused (e.g.: logiciel Alexandria to clear up vocabulary doubts in the case of Automates Intelligents). Of the websites the students consulted, 70% offered interactive resources such as blogs, forums, chats, e-mail, etc.; yet only 20% made use of these “often” and 10% used other interactive resources on their own initiative (personal e-mail, virtual classroom, etc.) to resolve doubts or exchange information.

b) The students who reported not knowing “how to spell the search words correctly” did not take advantage of the text on the webpage and in the task to write their keywords correctly in the “recherche” option. Some students noted the absence in Automates Intelligents of a Google-type space to search for keywords as a negative aspect in performing the task: “not knowing how to formulate the exact expression and have recherche look for it was a problem for me”. (In fact, Automates Intelligents does have a “recherche” tool).

c) Learning styles and ways of navigating are related. For example, in field dependent styles, the information is perceived as a whole (field dependence) and not as consisting of aspects from which those of interest to the specific task can be selected.

d) The students’ perception of the types of navigation and their actual navigation styles do not always correspond in the learning task performance situation. This may be related to the results of the students’ evaluation of Internet use. They value its role to obtain information but this appreciation is lower when learning and using a foreign language is concerned (cf. Figure 10). Evaluation of the Internet to resolve the task was low or medium.

e) There is a preference for visually attractive and simple pages that present direct information: “I thought robopolis.com was interesting because of the different types of robots I saw”.

f) Students find it difficult to recontextualise information and integrate it in new contexts, namely the new text or unit of meaning they had to construct to carry out the task. Half the students claimed that the links dissipated their search, while only 20% reported that they had helped them to understand.

g) The use of webpages in other languages to obtain information is not a hurdle. Eighty percent of the students handled information from documents in different languages.

The above statements can be completed and formed with other partial data from the case studies, which will be presented in greater detail in a later publication together with an analysis of the students’ navigation maps of the website. We now present some examples that help to illustrate the discussion of the results:

a) The style with which the student identifies him or herself as an Internet user may not correspond to that which he or she applies when undertaking a learning cybertask:

Case study example: E.B: A2. Synthetic, inductive, visual. She would like to improve her capacity to search unknown sites. The foreign language did not represent an added difficulty in
undertaking the task, she regards French language as easy to understand because of its similarity with Spanish, and she frequently uses Internet in other languages. However this student stayed within the context of the page, and did not use the secondary external links offered.

b) Language level (B1 and B2) facilitates the exploration of pages in active, verbal, synthetic, field independence styles and with a positive tendency towards ICTs:

**Case study example:** A.A: B1. The student inspected the main page for more than two minutes (127’’) for an idea of what she would find. Like most of the students, she entered the first section of the menu, the news section, and remained there for 19’. She then searched the site map to gain an overall picture. From there she went straight to the “arts imaginaires” section where she spent more than one minute before leaving the site and consulting the external page “artbots”. She then went back to the original site and after reviewing various sections for a couple of minutes, she then left the site again and spent 580” reading two dossiers (182’’ and 231’’) on the “SVM Le mag.fr” journal webpage.

This student used the *Automates Intelligents* site as a springboard to search further afield, using the links provided on the page to find out more by consulting eight additional pages (secondary links).

This student’s level of comprehension of the language helped her explore the pages in a few seconds, only spending more time when she wanted to read in depth.

c) Command of the language is a secondary factor in the degree of satisfaction with the performance and completion of the task among students with low degrees of autonomy who are dependent on external evaluation. Difficulties associated with cognitive, emotional and learning-culture aspects appear to predominate:

**Case study examples:** P.M B1: Not very autonomous, dependent on external evaluation and emotional, she prefers “the text to be brief and simple so as to avoid eye fatigue”;

S.F. B1: reflective, visual, emotional, and indecisive in her attitude to ICTs, deductive, not very autonomous, dependent on the teacher. She was not happy with pages containing a lot of information and that are not visually attractive. She states that her biggest difficulty was not due to the language, but to a mental block caused by excess information: “Really I felt a bit incapable because I couldn’t see clearly where to find the information. I found a lot of associations, research groups and conferences. Like Marta said, there were too many links and I got a bit lost. But anyway I tried to do the best I could”

d) For those with autonomous, active and inductive styles, and with a positive attitude to ICTs, language level (A2) is not a hurdle to navigation:

**Case study example:** MF: A2. Autonomous, emotional, positive attitude to ICTs, active and inductive: “I feel fine! The only drawback I have seen is that the homepage had so many links and it was a little complicated to find the answers.” He visited some 15 external pages, consulted pages in other languages and chose other ways of accessing information (videos).

e) Synthetic, inductive and field independent styles with a positive tendency toward ICTs perform the task by moving from browsing mode (5” to 50”’) to reading mode in long texts of greater interest to the task:

**Case study example:** A.A: B1. Looks for the site map where she can get an overall picture of the site and tends to globalise the information and place it in context with other information
f) In a complex task, the navigating and browsing mode coincides with searches in the page for exact responses to the questions by students with low levels of autonomy and dependent on external evaluation.

g) Students with an inductive, synthetic, and visual profile, with a certain degree of autonomy, may adopt strategic behaviours to solve the task quickly through emotional reactions and a representation of the task and of the resources, for example a question for which a word-for-word answer must be found in the web resource. In these cases, the navigation style prevails and students express feelings of frustration. Although they manage to answer the questions, their perception of the process is negative:

Case study example: **E.B: A2.** Synthetic, inductive, visual. Satisfactory solution of the task but reports “it was frustrating not being able to find the exact answers to the questions”

In the chapter on the conclusions of this CIBERTAAAL experience, we discuss and compare the results in the various languages and propose some lines for future research.
Abstract. This paper presents a cybertask designed to be performed by students of journalism within the subject “English for Journalists”. As a departure point, students were provided with a website which gives access to all the British newspapers and magazines. In the paper, we also present the structure of that site and the results obtained through a self-assessment questionnaire completed by the students. Finally, we offer an overview of the potential future results that can be obtained after the analysis of all the data collected.

Keywords. EFL, cybertask, online directory, digital newspaper, reading competence, autonomy.

1. Introduction

This chapter deals with the description of a cybertask related to the use of the English language mentioned in the introduction to this issue, and developed under the CIBERTAAAL R+D project framework. The task presented here is Un acercamiento a la prensa digital en lengua inglesa (an approach to the digital press in English) which can be accessed at http://www.giapel.uji.es/cibertareas/ctprensadigital/index.htm and was designed for its implementation in a degree on Journalism at Universidad Católica San Antonio, in Murcia, Spain.

In the first place, we will account for the criteria followed in the selection of the web page used for the design and implementation of the cybertask, and then we will provide a description of different aspects of the website like, for example, its contents, structure, link organisation, specific target audience, etc. Next, we will offer a detailed description of the cybertask and point out the specific objectives it pursues and how they relate to the CIBERTAAL project as a whole. The description of the task will include a reflection on the role played by each of the activities integrated in the task, including a methodological justification for their design and implementation. In the last section, we will show and discuss some relevant results obtained in a self-assessment test which students carried out after completing the activities of the cybertasks. This test, together with our own observation during the implementation of the tasks will be very helpful to learn about students’ reactions and attitudes towards the cybertask they were presented with. In future publications, all this will also be contrasted with significant data extracted from the learning styles of different students and their behaviour when navigating through the web pages (i.e. specific navigation modes employed in order to fulfil particular task objectives).

2. Cyberjournalism through a new digital genre: the on-line directory

At the beginning of the academic year 2007-2008, the students of the subject ‘English for journalists’ were asked about their previous use of newspapers written in English and about their knowledge of them in order to know the origin of the papers they were more familiar

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1 This research has been financed by project HUM2005-05548/FILO of the Spanish “Ministerio de Educación y Ciencia” and by a UJI grant: Ajuda UJI per a la continuïtat de la activitat investigadora (Res. 24/09/2007).

with. Most students indicated that, although they had not really made use of newspapers written in a foreign language, they were quite familiar with the format and names of some British newspapers. This is one of the reasons why we decided to use as a departure point the web page British Newspapers Online (http://www.britishpapers.co.uk) which – as can be seen in Figure 1 – contains several categories leading to any newspaper, magazine, or mass media publication in Great Britain. Another reason for this choice is related to the fact that this page can be said to represent a new type of digital genre which could be referred to as ‘online directory’\(^3\). Such directories contain features resembling both a newspaper library and a ‘hypersite’, that is, a site which does not allocate newspapers or publications, but that provides a complete battery of links to access them.

![Figure 1. Initial Web page for the cybertask on cyberjournalism](image)

These directories are made up of millions of pages. This was found to be a problem for our computer equipment and graph software in that such a vast amount of information could not possibly be gathered in a graphic representation, and often led to a system collapse (for more details see Navarro, Aguado and Silvestre, this issue). It is for this very reason – and, unlike in the analyses of other web pages presented in this monograph – that we are not presenting a graph derived from this web page. As suggested in previous chapters, the graph serves to illustrate the architecture of a page, and in this case we are not dealing with a “regular page”, but with one that homes links to thousands or millions of them. Nevertheless, it might be interesting to point out that the graphs of pages related to the world of news often present a similar structure: one big and dense “ball” that may be connected to smaller ones, yet always indicating that the reader has entered a closed world, a world where everything (as far as information is concerned) is provided and therefore there is no need to access other pages. As an example, Figure 2 shows the graph of the page Sky News (http://news.sky.com/skynews/):

\[^3\] Other examples of online directories for mass media publications can be accessed at http://www.wrx.zen.co.uk/britnews.htm and http://www.londondirectory.co.uk/sites/7384.
When talking about a directory it is easy to imagine a resource which has been designed with informative purposes exclusively. However this is not the case of the directory we are concerned with; a closer and more in-depth examination of the site reveals that it is devised for and intended to reach a very specific target group: British expats (see Figure 3).

Thus, the site evaluates, categorises, and selects the information because there is a very clear profile of the group it is intended for. British expats are expected to be able to find in the site not only news, but everything they might be interested in; for example, through the menu “links” they may access a whole variety of topics, from “mortgages in Spain” to “Travel A-Z”. Nonetheless, this is not so until the fourth navigation level is reached. Thus, the home page offers everything the target audience might be interested in, but in the fourth navigation level, the reader abandons this particular world and moves to a completely different one: the real world of digital newspapers and magazines. In fact, from this navigation level on, there are no internal links to let the reader return to the original site.

Instead of including a C-map, we consider it more representative for this page to show the different steps to be taken in order to reach that ‘real world’ of information and abandon the mini-world of the online directory. With that purpose in mind we are showing as an example the possible path that could be followed by a user who is interested in reaching the international section of a national newspaper. Figure 4 shows again the initial website of British Newspapers Online where this user would probably choose to click on the link ‘National-heavyweights’.
Then, in Figure 5 we can see the result of that move, namely, a page where we get a brief explanation of what is meant by the term ‘heavyweight’, followed by a list of some of those newspapers also offering a brief description of each. Within this site, our user can choose among nine different newspapers.
Figure 5: Example of second navigation level of British Newspaper Online

Given the case the user decides to click on ‘The Independent’, the next screen (Figure 6) will offer a brief history as well as a description of this paper which includes comments on its ideology, format (mainly of the printed version) and contents.
Figure 6: Example of the third navigation level in British papers online

At the end of this description, the user finds the URL that gives access to the newspaper ‘The Independent’ (Figure 7) and therefore leaves the online directory to enter the ‘real world’ referred to previously.
British Newspapers Online has served us to make a pedagogical use of a new concept, a new genre. We are aware that students of journalism are not the target audience of this site but the clarity it presents in the classification and structure made us select it for our own purposes. Apart from pedagogical reasons, the decision to use this site obeys as well further research criteria: in order to navigate in this site learners need to have a capacity to select and identify the links because this is broadly what the site contains: links which have been perfectly categorised. Indeed, and as far as mass media publications are concerned, the right side of the page offers a very clear classification according to different criteria such as the type of publication (heavyweight, mid-market, red-top) or its geographical location (England-North West, England-North East, Scotland, N. Ireland, etc.).

Furthermore, the page presents all the characteristics that had been considered necessary within the framework of the research project (CIBERTAAAL) to be included as part of our bank of web pages, namely hypertextuality, interactivity, and multimodality (see Villanueva, Luzón and Ruiz-Madrid 2008). These, moreover, have often been signalled as three of the most outstanding characteristics of journalistic language in cyberspace (Salaverría 2005). On the one hand, the great amount of links that the page contains shows a highly hypertextual page which in fact contains very little information and makes navigation essential. On the other hand, the page is also very interactive as the reader is given the opportunity to contact the authors of the page, to advertise with them and / or carry out other searches with the Google Search Engine throughout the World Wide Web or more specifically within the site ‘British Newspapers Online’. Multimodality, however, is not a feature that can be expected from this type of pages, not at least from their first navigation level, but it is true that they give readers access to a whole world of digital media publications containing text, pictures, videos, and much more in just four clicks.

3. Cyberjournalism: the cybertask

3.1. Aims of the task

The task Un acercamiento a la prensa digital en lengua inglesa was designed for students in their third year of journalism who had had therefore previous contact with the world of the mass media. More specifically, these students have a compulsory subject in this third year called “English for journalists”. The subject offers students the possibility to become familiar with the printed press in English by having a look at some vocabulary related to the mass media as well as at headlines, leads, bodies of news, etc.

Needless to say, the digital press has become a far more popular genre among students as compared to the printed one. Indeed it is not very common to find students who still read printed newspapers and this is one of the rationales behind the design and implementation of a task like the one under discussion, namely, to offer students the possibility to learn about the main features of the digital press and to compare them with the one they are more familiar with (i.e. the printed press). The different activities the task contains are a helpful tool to attain this objective and help students to collect and manage the information they need to write the final report demanded by the task.

Another objective of this task is to let students practice the language in a context which can be of use and interest for them because, as Navarro-Coy and Villanueva (2009) state:

Learning ESP involves making students sensitive to this kind of changes (new genres) because, otherwise we are promoting an instrumental and narrow view which assumes that learning English is completely separated from the rest of their studies.
Moreover, as mentioned before, cyberjournalism is nowadays more popular than the traditional genre, but the panorama it offers is completely different from the one readers have been familiar with for decades. In this sense, we can point out the fact that in digital newspapers, information is generally fragmented in brief texts, summaries, and links, which can make readers lose the global perspective. Furthermore, the lack of hierarchical organisation is obvious in this kind of media, something which is promoted by the use of frames, internal links, and redundant paths to reach the same story.

Students are very likely to use this kind of media in a spontaneous way without taking into consideration any of the aspects mentioned above. It is therefore of great importance, as well as one of our main objectives, to have a knowledge of the way students approach and make use of digital papers in order to provide them with the necessary skills to make an efficient and effective use of cybergenres in general, and of digital newspapers in particular. Indeed, it is one of the aims of the CIBERTAAAL project to study the strategies used by students when dealing with web documents which, as Askehave and Nielsen (2005) indicate, not only act as text but also as medium when the navigation mode is activated. Moreover, the development of these skills is a key factor for the promotion of an autonomising reading competence among learners, so much demanded in this new context.

3.2. Description of the task

The task *Un acercamiento a la prensa digital en lengua inglesa* contains five activities which place students in different situations which require of them different behaviours regarding their navigation modes. In general, the type of work they are required to do “forces” them to carry out non-linear reading as well as to navigate with different objectives. Furthermore, the final report they have to write constitutes an exercise of information management where learners have to select, gather and/or relate all the information they collected while navigating in order to do the task.

Thus, activities 1, 2, and 3\(^4\) require a quick navigation through the web looking for different ‘answers’. In these three activities, students must find certain information by accessing the web pages of different newspapers (for an example see Figure 8). Such information includes the way British newspapers can be classified or the most frequent sections of digital papers among others. Looking for similarities or differences is also a common practice in these activities. For all that, the navigation mode for these three activities is expected to be quick and fluid. On the other hand, and from a more pedagogical point of view, we can say that the search for information students carry out in activities 1, 2, and 3 intends to provide them with a global view of British newspapers in general, and of British digital newspapers in particular. In fact, by completing these activities, students can become acquainted with the different types of newspapers regarding content, origin, etc. as well as with the way they are organised, i.e. the sections they are divided into.

ACTIVIDAD 2

- ¿Cuáles son las secciones más frecuentes en que se dividen estos periódicos digitales? Da al menos un ejemplo de una sección cuyo nombre no te resulte familiar y explica qué tipo de noticias contiene.

- ¿Existen diferencias significativas entre las secciones de la prensa sensacionalista y la no sensacionalista? En caso afirmativo, da algunos ejemplos.

Figure 8: Activity 2 of the cybertask

Activities 4 and 5 also involve students in an exercise of information management through the comparison of different language registers (activity 4) and the different ways quality and popular press present the same news story (see Figures 9 and 10). Students need to gain insight into text itself, which requires a slower navigating mode because they have to engage in deeper reading processes. In activity 4, students are asked to analyse headlines belonging to the different types of press (quality and popular) in order to check the existing differences among them. This exercise tries to familiarise students with the headlines written in English and to let them discover the features that make this particular type of texts difficult to understand in a foreign language.

Activity 5 goes a bit further and engages students in the comparison of complete articles taking into account their different parts: headline, lead paragraph, and news body. Thus, apart from being a highly meaningful reading activity for them, in it they are required to carry out a more careful and in-depth reading that is intended to let them discover how differently popular press and quality press may handle the same piece of information.

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ACTIVIDAD 4

Generalmente, el tipo de lenguaje que utilizan los periódicos sensacionalistas es diferente y nos crea más dificultad que el utilizado por la prensa no sensacionalista. Selecciona tres titulares de cada tipo (sensacionalista / no sensacionalista) que reflejen tales diferencias e indica mediante ejemplos qué es lo que los hace diferentes.

Figure 9: Activity 4 of the cybertask

ACTIVIDAD 5

Busca la misma noticia en un periódico sensacionalista y en otro no sensacionalista. Tras su lectura, haz una comparación entre ambas atendiendo a todas sus partes: titular, entradilla y cuerpo de la noticia. Será interesante que incluyas esta comparación en el informe a modo de ejemplo.

Figure 10: Activity 5 of the cybertask

4. Results and discussion

The cybertask Un acercamiento a la prensa digital en lengua inglesa was completed by twenty-seven students with an average English level of A2-B1, according to the proficiency levels established by the Common European Framework of Reference for Languages.

The amounts of data gathered throughout the completion of the task (i.e. proficiency level, learning styles, navigation modes, researchers’ observation) as well as with the previous analysis of the Web pages allow us to approach the potential results from different perspectives. As has already been said, the aim of this monographic issue is not to present an analysis of all the results obtained in all the cybertasks included in the project. Our intention is rather to show readers some relevant outcomes which can be derived from this kind of approach given the popularity of digital texts in general and of digital newspapers in particular.
4.1. Self-assessment questionnaire

The self-assessment questionnaire (see Annex 3) gives us a unique opportunity to learn about students’ opinions and reactions on the following aspects:

A) **Technical skills**: except for one student who admitted having very basic skills, most of them indicated that they master the search for information using the Internet and usually make a good use of links and key words:

- “las búsquedas, suelo poner las palabras clave adecuadas para obtener la información que deseo”
- “la búsqueda de información en diferentes páginas”
- “la navegación por la red; el uso de diferentes enlaces que apoyan mis búsquedas”

When they were asked about the technical skills they would like to improve there were four aspects which most commonly seemed to worry students: the language, the speed to find information, the efficiency to carry out searches and a better use of key words. In sum, they want to find what they are looking for in the shortest time possible, although most of them indicated that their command of the English language was an important handicap:

- “saber llegar a la página adecuada en un tiempo inferior al utilizado”
- “escoger mejor las palabras fundamentales de la búsqueda”
- “claramente, el idioma. Me ha costado bastante obtener la información que me pedían porque estaba en otro idioma.”

However, this question of efficacy somehow seems to suggest that students might be looking for a ‘right answer’ which cannot be obtained as such in any Web page and, of course, they want to be taught ‘infallible’ methods to find the answer to any question by searching the Web. If this is not so, the Web can be perceived as an ‘enemy’ instead of as a useful tool. Indeed, the lack of a clear objective can give students a sense of confusion, disorientation and cognitive overload. The following comments, still answers to the second part of question I of the questionnaire, clearly reflect that feeling:

- “El dominio de la navegación, conocer buscadores diferentes y que me propusieran algún método distinto para buscar información, así como saber a veces en las páginas que realmente estoy, ya que muchas veces al buscar información nos perdemos un poco por la red y encontramos cosas que ni siquiera buscamos.”

- “No dar tantas vueltas a la hora de encontrar lo que quiero, saber dónde me tengo que dirigir directamente.”

In a sense, students seem to expect what they have usually expected from teachers: clear directions to find specific answers instead of guidance to be helped to manage information and construct meaning from the possibilities offered by a limitless resource as the Internet.
**B) Criteria used to select information:** Table 1 shows the importance students give to certain criteria when they have to select information from the Internet. In the questionnaire, they were given four possible answers for each criterion, but here we only include the last two as they indicate that the criterion itself is of certain relevance for the person answering the questionnaire.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Important criterion</th>
<th>Key criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key words</td>
<td>42.4%</td>
<td>48.5%</td>
</tr>
<tr>
<td>Site reliability</td>
<td>45.4%</td>
<td>42.42%</td>
</tr>
<tr>
<td>Importance of contents and information</td>
<td>48.5%</td>
<td>48.5%</td>
</tr>
<tr>
<td>Easy to read (language)</td>
<td>51.52%</td>
<td>21.2%</td>
</tr>
</tbody>
</table>

Criteria included in the questionnaire but not in Table 1 are those whose percentages did not reach 50% of the total. From that, we might conclude that these four are the most relevant ones for the students who completed the questionnaire. Next we offer some comments on them:

- “es importante saber utilizar adecuadamente las palabras clave, sobre todo en los buscadores porque así es más sencillo acercarse lo máximo posible a lo que estamos buscando en la red.”
- “el criterio es fijarme en la objetividad y en las fuentes utilizadas, al igual que en la fama del mismo.”
- “la importancia de los contenidos la determina quien los consulta. Mientras sean importantes para mí, es un criterio que tengo muy en cuenta.
- “es mucho más cómodo enfrentarse a un texto que se puede leer con fluidez, pero que el texto sea un poco más complicado no es razón para desecharlo, sino que hay que dedicarle un poco más de tiempo.

The fact that both in sections A and B students often talk about the relevance and use of key words seems to suggest that they have not made a great use of the numerous links offered by the Website and may have resorted to the search through a search engine like Google which is included on the site.

We have the possibility to verify this information by having a look at the tool used to analyse the students’ navigation modes.

**C) Information management:** Table 2 shows the results obtained in the question related to the use students made of the resources available as well as their perception of such usage:
Table 2. Use of resources for information management

<table>
<thead>
<tr>
<th>Resource use</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 texts</td>
<td>45%</td>
</tr>
<tr>
<td>3 texts</td>
<td>58%</td>
</tr>
<tr>
<td>4 or more texts</td>
<td>36%</td>
</tr>
<tr>
<td>multimodality</td>
<td>61%</td>
</tr>
<tr>
<td>Different languages</td>
<td>42%</td>
</tr>
<tr>
<td>Online dictionaries</td>
<td>64%</td>
</tr>
<tr>
<td>Own searches</td>
<td>61%</td>
</tr>
<tr>
<td>Random searches</td>
<td>12%</td>
</tr>
<tr>
<td>Selected links</td>
<td>64%</td>
</tr>
<tr>
<td>Random+selected links</td>
<td>36%</td>
</tr>
<tr>
<td>All links</td>
<td>6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resource perception</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Links=dispersion</td>
<td>12%</td>
</tr>
<tr>
<td>Links=comprehension</td>
<td>76%</td>
</tr>
</tbody>
</table>

The figures in Table 2 offer some interesting results as, for example, the fact that a significant number of students were able to manage information from three texts and in different languages. It is also worth noticing that many students reported to have taken advantage of the multimodality of the pages and to have been able to make their own searches and use resources from the web which had not been suggested by the teacher. However, we have highlighted two of the figures related to the use and perception of the use of links. As has been already mentioned, an analysis of the page British Papers Online, an online directory, lets us see its special structure which is mainly made up of links. This way, we may presuppose that such an organised structure can be of great help for students who only have to choose among very clearly defined categories of links. The results obtained seem to confirm this because, as we can see in Table 2, 64% of the students selected the links and only 12% used them at random. Furthermore, 76% indicated that the links aided their comprehension while, again, only 12% felt that links had dispersed their search (for a comparison of results, see Sanz and Villanueva, this volume).

D) Interactivity: the graph in Figure 11 shows students’ perception of the interactivity of the pages visited and the use they made of these or other resources. The figures in the graph represent the sum of the answers ‘often’ and ‘almost always’:

![Figure 11 interactivity of websites](image)

As can be seen in the graph, most of the pages used by students (82%) contained interactive resources such as blogs, e-mail, chats, etc. However the 51% who reported to have...
used such resources mainly did it on other pages (30%) and only 21% used the ones offered on the pages used to complete the task.

**E) Students’ perception on Web pages:** in general, students who participated in the project found very useful the initial page they were provided with, mainly because its structure facilitated the navigation and therefore the access to pages that could be used to answer the questions of the different activities:

- "la web que se ofrecía como punto de partida para realizar la actividad ha sido sin duda mi mayor descubrimiento en esta tarea, pues en ella se ofrece una visión global de toda la prensa británica, muy importante para quienes no la conocemos."

- "los enlaces que daban en la página principal me han sido de mucha ayuda ya que no conocía muchos periódicos de la prensa británica."

**F) Understanding the foreign language** did not seem to be a big problem to carry out the task, although we have to say that many students admitted to have difficulties in understanding newspapers articles in English, mainly the ones in sensationalist press. However, they indicated that this difficulty was only a disadvantage regarding the time needed to complete the task:

- "al ser en inglés me resulta más difícil ya que la comprensión es más inexacta y tardo más tiempo en responder a las actividades..."

**G) Other comments:** Only nine students made further comments on this section of the questionnaire. Most of them found the cybertask an interesting and practical activity although some talked about the difficulties it presented. In this sense it is interesting to bring up here the comment made by a student who considered the activity a difficult one not because of the language but because of the high a mount of information available:

- "la dificultad de la tarea reside, en mi caso, más en la abundancia de información que en el idioma. Conseguir una visión global y seleccionar lo más pertinente ha sido el reto más importante."

In the rest of the questionnaire, students had to assess issues related to the results of the task:

**H) Level of satisfaction:** the graph in Figure 12 aims to show students’ level of satisfaction on different aspects related to the task. This time, the figures represent the sum of the options ‘high’ and ‘very high’:
In this sense.

50%. Only 33% of the students showed a high (21%) or very high (12%) level of satisfaction in the aspect related to the use of the foreign language which was the only one to obtain less than ‘useful’ to refer to it.

Some students included in their comments adjectives such as ‘interesting’, ‘dynamic’ or useful’ to refer to it.

However, there is a general positive feeling about the task and with the difficulty to work with information in English and with the fact that they had to deal with too much information. However, there is a general positive feeling about the task and some students included in their comments adjectives such as ‘interesting’, ‘dynamic’ or ‘useful’ to refer to it.

I) Further comments: the comments made by students were more or less repetitions of the ones they had made in other parts of the questionnaire. Thus, they were mostly concerned with the difficulty to work with information in English and with the fact that they had to deal with too much information. However, there is a general positive feeling about the task and some students included in their comments adjectives such as ‘interesting’, ‘dynamic’ or ‘useful’ to refer to it.

J) In spite of the facts that all the students participating in the project made comments about their own strengths and weaknesses when performing the task, it is very easy to summarise the content of such comments. Except for five students who did not specify those strengths and weaknesses the rest coincided in pointing out the easiness to find information on the Internet as a strength and their command of the English language as weakness.

K) Students were also asked to assess the strengths and weaknesses of the task itself. Some of the comments obtained did not really refer to the issue they were asked to assess and even in two cases students indicated that the strengths and weaknesses of the task coincide with the ones they indicated in the last section. However there are some interesting comments we would like to highlight. Some students appreciated the task as an exercise to learn English and more specifically to know about the press written in English. Here are some of the comments which reflect that feeling:

`punto fuerte: aprender más cosas sobre los diarios ingleses viéndolos directamente, porque si no hubiéramos hecho esta tarea lo más probable es que casi ninguno de nosotros`
viera por su cuenta estos diarios para conocer por ejemplo los tipos de secciones que contienen o las diferencias entre un diario sensacionalista y otro no sensacionalista.”

“el punto fuerte es que me ha servido para aprender.”

“la tarea me ha parecido muy buena para conocer la prensa inglesa en Internet y las diferencias entre los distintos tipos de lengua inglesa.”

“me parece una buena iniciativa en general.”

“servir para obtener una visión completa de la prensa británica para quienes no la conocemos.”

On the other hand it was also common to find students who considered the link provided in the introduction to the task very advantageous to carry it out.

Even though it is not quantitatively representative, there is one comment we consider worth highlighting because the student considered that the strength of the task has to do with the fact that it allowed them to manage information from different sources:

“el punto fuerte es que hay que comparar y obtener información de varios sitios.”

In sum, this self-assessment questionnaire can be considered a helpful tool not only for researchers but also for students in that it allows them to become aware of and “reflect upon their own learning preferences, the demands of the language task and the strategies that they will need to complete the task” (Luzón and Ruiz-Madrid, this issue).

4.2 Further data analysis

A huge amount of data has been gathered from the experiments carried out using the different cybertasks included in the research project and we are now in the process of analysing information, and extracting quantitative and qualitative results.

Thus, at this stage we can not yet provide any conclusive pieces of information, however a thorough analysis of the data is to come and it is intended to allow us to find out mainly how students manage complexity and how they construct meaning in a hypertextual environment. This may be achieved for example by establishing relationships between navigation maps and learning styles or by establishing relationships between web page architecture (complexity, hypertextuality, links, etc) and how all this may influence navigation patterns.

These results will let us establish a difference between the three patterns under analysis, namely: browsing, navigating, and reading.

5. Final remarks

In this paper we have suggested a functional approach to multiliteracy through the description of a cybertask carried out by EFL students of journalism. On the one hand, as far students are concerned, this tasks allowed them to learn about the digital press in English by managing information on their own so as to fulfil specific task objectives. On the other hand, the observation of their “cybertask performance” and the use of a series of tools allowed us to
collect information about the way students tackle specific kinds of digital documents. Thus we intended to assess their rreading competence, to uncover specific sets of strategies needed to deal with these documents (digital newspapers) and to identify those which still need further development on the part of students so as to be able to eventually provide them with the necessary tools to achieve this goal and help them become more autonomous learners.

Each activity of the cybertask involved students in different navigating and information management processes (e.g. quick navigation to spot specific information, browsing, reading, or comparing information from different sources and text types). The self-assessment questionnaire allowed us to get an overall impression of the students’ attitudes towards the task. Outstanding overall findings derived from the questionnaire suggest that, on the one hand, students display positive attitudes towards ICTs, perceiving themselves as capable of managing information efficiently – e.g. by quickly searching and efficiently selecting information bits, by discriminating reliable sites, or by ascertaining the importance of their contents and information as related to the fulfilment of specific objectives. On the other hand, however, they identified two main difficulties. The first one is related to the use of the English language in that, even if it was not a great hindrance, it seemed to slow down their task performance. As for the second one, even though their overall impression regarding the online directory was positive – especially because it presented all resources in an orderly way –, the high amount of information they had to manage during the task led to a cognitive overload in certain students (see also Oster, this issue). This suggests that not only the students level of English, but also their particular learning styles determine the way they process information in digital environments (see Oster, this issue) and hence their overall performance during the cybertask. All in all, it seems that students tend to manage information rather quickly as far as specific and well-defined blocks are concerned. However, in spite of this skill some of them might need further practice in the holistic processing of information of those sites identified previously, in establishing connections between different sources and abstracting meaning out so as to eventually build up a coherent and comprehensive product.

6. References


Building Professional Awareness in the Cyberage: The World of Professional Translation and Interpreting in the German Speaking Countries

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Universitat Jaume I, Spain

1. Introduction and aims of the task

Within the overall framework of the Cibertaaal project, the task El mundo profesional de la traducción y la interpretación en Alemania was designed for second-year Translation students who learn German as a second foreign language. Their average level of proficiency in German, according to the European Frame of Reference at the time of completing the task, was A2/B1. Translating from German into their native Spanish or Catalan is the main objective of the curriculum for the second foreign language in a Translation degree, which turns reading comprehension into the most important aspect of the language courses that precede the actual training in translation. This focus on developing reading strategies as well as the pre-intermediate level of proficiency of this group of students makes them the ideal target group for a cybertask as outlined in the previous chapters.

It is obvious that reading can only be learnt through practice and that the internet is one of the sources of textual input that is most easily accessible to our students and that offers a wide range of possibilities. However, at this early stage of the acquisition process, many of our students still shy away from using web pages in German as a resource either for authentic information or for reading material. This is why the central idea behind this cybertask is helping students to overcome this difficulty and to access a variety of texts – even texts that may be beyond their linguistic abilities – in a way that is purposeful and leads them to establish a meaningful interaction with the texts. In order to achieve this, we take advantage of several factors that enhance the student’s ability to deal with complex foreign language texts:

- Above all, the selection of a topic both motivating and sufficiently familiar to learners. In this case, the task introduces students to the world of professional translating and interpreting in the German speaking countries. There is thus a direct link to students’ interests as well as the possibility of comparing with what they know about their profession and its market in their own country. This makes it likely for them to be genuinely interested in resolving the task.
- Student familiarity with many of the genres they will encounter during the task, either traditional or new digital genres.
- The pre-existence of web navigation strategies that students have already developed for their native language or for their first foreign language (English).
- The multilingual nature of the web. For many German pages, there is also an English version available (occasionally in other languages like French or Spanish too). Although it is desirable to have students use only the German version (from the point of view of developing their German language skills), we have found that resorting occasionally to the English or Spanish

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1 This research has been financed by project HUM2005-05548/FILO of the Spanish “Ministerio de Educación y Ciencia”.
2 There is also a German version of the same task: Übersetzen und Dolmetschen in den deutschsprachigen Ländern.
version can help weaker students complete the task and thus make the most of it rather than abandon it altogether due to linguistic difficulty.

Owing to the twofold nature of this first generation of cybertasks as language learning tasks and instruments for carrying out research in action, our task is designed to achieve both learning objectives and research aims. The most important learning objectives belong to the areas of developing language skills, professional awareness and learning autonomy:

- **Language skills**: Enhancing reading comprehension
  - Reading and analysing texts belonging to different text types and discourse genres
  - Practising different reading styles
  - Developing and using different reading strategies
  - Combining information from different sources
  - Developing a critical attitude in reading: evaluating source reliability

- **Professional awareness**: Getting to know the fundamentals of the translation and interpreting market, its mechanisms and requirements is an essential part of translator and interpreter training. This task gives the students an initial insight into this market in the German speaking countries.

- **Developing autonomy**: The task is designed to enhance student autonomy both in language learning and in their professional skills by improving their competence in seeking and processing information in the foreign language.

Our research aims, on the other hand, comprise analysis into the following aspects:

- The students’ reading and navigation modes in relationship to the nature of the task and the web sites
- The relationship between level of proficiency and navigation strategies
- The relationship between navigation strategies and cognitive and learning styles

2. **Description of the task**

Our task about the world of professional translation and interpreting in the German speaking countries can be found in: *El mundo profesional de la traducción y la interpretación en Alemania*. It has the format of a web-quest in the sense of Koenraad’s “talenquest” (Koenraad & Westhoff 2003; Koenraad 2006) or the web-task for language learning described by Luzón (2007). It is designed to give significant, attractive and authentic input, it is based on a natural need for information, and it tries to promote the use of learning strategies and the reflection on strategy development as well as on product and process. In this version of the task, designed for students with a level of A2/B1 in German, the main focus is on receptive strategies and processing meaning, the productive and meaning negotiation phases being carried out in the student’s mother tongue. However, the task could easily be adapted for more advanced learners by introducing more language production-oriented activities.

**Phase 1**: Professional associations

In the first step, the students quickly get to know the eight different web sites by classifying the associations geographically (Germany, Austria, Switzerland) and in terms of their scope (translation and interpreting in general, legal translation, conference interpreting, etc.). The following steps explore different aspects of the professional associations, for instance conditions and procedure for gaining membership, courses that are offered, finding a

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3 Another example of a web-quest for the same target group – which is described in Oster (in press) – can be found at: [http://www3.uji.es/~oster/plantilla2/index.htm](http://www3.uji.es/~oster/plantilla2/index.htm).
translator, and ethical codes. After the familiarisation phase, the tasks are set in a way that the learner has to do more than simply look for a piece of information on a particular web site and paste it in a worksheet. For example, the learners choose a web site according to their own interests; they have to find different ways of retrieving the information in different web sites. In Task 1C they define their own (hypothetical) translation need, locate the appropriate search engine (this one for translators or this one for interpreters, for example) and interact with the interface that allows them to find a suitable translator or interpreter. In Task 1D, which deals with ethical codes and is more advanced, students combine and evaluate information from different sources in order to establish their own list of ‘dos and don’ts’ in translation practice.

Phase 2: Interpreting agencies

In the last task, students work in teams in order to assess the sites of three interpreting agencies. They adopt the role of the organiser of a large multilingual conference and have to decide which of the agencies they would trust with the job. By browsing the sites, they identify criteria that can sustain their decision (for example, general information on interpreting, information on the experience and training of the interpreters, the existence of voice samples or recordings of previous interpreting jobs, etc.). This last task is the most demanding one, in the sense that it requires active processing of the information, combining information from various sources, evaluating and rating the importance of different criteria, contrasting the information with other members of the team, and negotiating the result.

3. The web sites

3.1 Characteristics of the web sites

The web sites that are offered to the students as resources for completing the tasks are of two types. In the first part of the task, they work with the pages of different translator and/or interpreter associations; the second part deals with the sites of three translation and/or interpreting agencies. The sites have been chosen according to the following criteria, which are shared by all the other cybertasks in this project.

- Multimodality: All sites contain text and images; many also offer videos and audio files.
- Interactivity: All pages offer several types of possible action by the reader or interaction with the “writer” of the page:
  - filling in a contact form
  - signing up to the association
  - offering oneself as a professional
  - seeking a professional translator or interpreter in a database
  - calculating the price of a professional translation
  - reading, watching or listening to information
- Multilingualism: Many of the pages offer an English version, with some offering as many as four additional languages.
- Genre: All the sites show a high degree of multigenericity and transgenericity as explained in Villanueva, Luzón & Ruiz (2008). We find a range of genres including informative ones (regulations, FAQs, fees), advertising texts, CVs, directories and link collections.
3.2 Site architecture

The eleven web sites the students use to complete the task are quite complex and different in structure. We have analysed them with the help of the y-Ed software, which enables us to represent the structure of the site and the internal links graphically (cf. chapter 4). As an example, figures 1 and 2 show the graphs of the three pages used for the second phase of the task. The blue image corresponds to a site called Syntax, the yellow one to simultanea, and the pink one to d-interp. Every rectangle represents a page, and the lines signify internal links.

In both types of layout (the organic and the circular) we can clearly see that Syntax is much more loosely structured and that there are much fewer links between different elements of the site. Simultanea and d-interp, on the other hand, are closely knitted structures in which every element is linked to a large number of others. This can be seen most clearly in the circular layout (Figure 2), where these two sites present a structure that Navarro and Villanueva (2008) call “radiolarian”, a term borrowed from biology. The organic layout shows that simultanea and d-interp are made up of clusters that are heavily connected internally and among each other. On closer examination, we find that each cluster corresponds to a different language version of the site: two languages in the case of simultanea, and four in the case of d-interp.

As explained in chapter 3, during the experimental phase of the project the students’ navigation and the time spent on each page have been recording. These data will hopefully enable us to draw conclusions on whether site architecture can influence the way students navigate in order to find information.

Figure 1: Organic layout
In accordance with our aims in designing this task, our evaluation of the results will take into account the way students dealt with the task in the classroom on the one hand and some tentative initial conclusions with respect to our research aims on the other. In order to reach these conclusions we rely on the students’ self-evaluation as well as our observations during the experience (two teachers took notes on the individual approaches of each student including their way of navigating and the kind of questions they asked).

4.1 Student self-evaluation

Generally speaking, the overall impression is that of a good acceptance of the task by the students. Most appreciate that the task offers them interesting information about their future profession and access to documents in German they would not even try to read otherwise. The negative aspects the students point out are related to technical problems (slow internet connections), the length of the task in relation to the available time, and problems with linguistic difficulty.

Most students are confident about their skills regarding the use of the internet as a source of information. However, many of them feel it could be useful to improve their search techniques. Furthermore, the foreign language is seen as more problematic. Many students report difficulties due to a lack of linguistic knowledge. However, in most cases this does not
prevent them from completing the exercise successfully, as is shown in their answers to question 6, where they explain what they did to overcome these difficulties.

The answers to question 3 also reflect student competence in managing internet resources:

- They do not find it problematic to combine information from different sources.
- Most of them are aware of having used and combined information of different types (image, text, audio or video).
- When they face linguistic problems, they resort to online dictionaries (96.43 %) and occasionally switch to a version of the web site in another language.
- Almost half the students (46.43%) declare that they have stepped outside the direction given in the task, carrying out relevant additional searches autonomously.
- More than 80% use the given links selectively, either before or after entering a web site.
- More than 60% find the links helpful, whereas a minority (17.86%) feels links can distract them while searching.

Student satisfaction with different aspects of the task, on the other hand, is generally high:

- More than 90% rate their handling of the internet for resolving the tasks, for gathering information, and for construction of meaning as “medium” or “good”.
- More than 70% rate their ability to use the foreign language to access new information as “medium” or “good”.
- More than 75% rate the influence of ICT and the learning task on their foreign language development as “medium” or “good”.

4.2 First impressions and observations

Although a thorough examination of the data resulting from observation, registration of the students’ navigation, the learning styles test and the student self-evaluation is still to come, we can advance some preliminary conclusions concerning some of the variables that influence task success:

- **Language proficiency**
  According to the language test completed by the students before doing the cybertask, their level of proficiency in German ranged from A1/A2 to B2. With the task being designed for level A2/B1, it is not surprising that lower-level students reported more problems and needed more help with the task, while the feedback of more proficient learners was more positive.

- **Learning styles / Ways of processing information**
  In contrast to the overall influence of the variable of language proficiency, we can also observe some interesting exceptions. Some students who usually do well in other types of classroom task showed signs of being overwhelmed by the amount of information offered by them and/or the linguistic complexity of the texts, which was well beyond the average classroom text. On the other hand, other students whose performance in other language tasks is not outstanding in any way did remarkably well in this task and did not find it difficult.
References


Annex 1: Level Test

Tests de nivel para experimentación CIBERTAAAL (HUM2005-05548FILO)

INFORMACIÓN PERSONAL

¿Cuánto tiempo llevas estudiando inglés? (específica detalladamente en qué condiciones: colegios, institutos, academias, Escuelas Oficiales, extranjero, etc.)

¿Tienes algún título o certificado de inglés?:
No ☐
Sí ☐

MÁS INFORMACIÓN

Especifica con sinceridad el nivel de inglés que crees que tienes:

1. Cuando escucho el inglés hablado:
   ☐ Reconozco palabras y expresiones muy básicas que se usan habitualmente, relativas a mí mismo, a mi familia y a mi entorno inmediato cuando se habla despacio y con claridad.
   ☐ Comprendo frases y el vocabulario más habitual sobre temas de interés personal (Información personal y familiar muy básica, compras, lugar de residencia, empleo).
   ☐ Soy capaz de captar la idea principal de avisos y mensajes breves, claros y sencillos.
   ☐ Comprendo las ideas principales cuando el discurso es claro y normal y se tratan asuntos cotidianos que tienen lugar en el trabajo, en la escuela, durante el tiempo.
   ☐ Comprendo casi todas las noticias de la televisión y los programas sobre temas actuales de ocio, etc.
   ☐ Comprendo la idea principal de muchos programas de radio o televisión que tratan temas actuales o asuntos de interés personal o profesional, cuando la articulación es relativamente lenta y clara.
   ☐ Comprendo discursos y conferencias extensos e incluso sigo líneas argumentales complejas siempre que el tema sea relativamente conocido.
   ☐ Comprendo la mayoría de las películas en las que se habla en un nivel de lengua estándar.
Comprendo casi todas las noticias de la televisión y los programas sobre temas actuales.

Comprendo discursos extensos incluso cuando no están estructurados con claridad y cuando las relaciones están sólo implícitas y no se señalan explícitamente.

Comprendo sin mucho esfuerzo los programas de televisión y las películas.

No tengo ninguna dificultad para comprender cualquier tipo de lengua hablada, tanto en conversaciones en vivo como en discursos retransmitidos, aunque se produzcan a una velocidad de hablante nativo, siempre que tenga tiempo para familiarizarme con el acento.

2. Cuando leo textos en Inglés:

Comprendo palabras y nombres conocidos y frases muy sencillas, por ejemplo las que hay en letreros, carteles y catálogos.

Soy capaz de leer textos muy breves y sencillos. Sé encontrar información específica y predecible en escritos sencillos y cotidianos como anuncios publicitarios, prospectos, menús y horarios y comprendo cartas personales breves y sencillas.

Comprendo textos redactados en una lengua de uso habitual y cotidiano o relacionada con el trabajo.

Comprendo la descripción de acontecimientos, sentimientos y deseos en cartas personales.

Soy capaz de leer artículos e informes relativos a problemas contemporáneos en los que los autores adoptan posturas o puntos de vista concretos.

Comprendo la prosa literaria contemporánea.

Comprendo textos largos y complejos de carácter literario o basados en hechos, apreciando distinciones de estilo.

Comprendo artículos especializados e instrucciones técnicas largas, aunque no se relacionen con mi especialidad.

Soy capaz de leer con facilidad prácticamente todas las formas de lengua escrita, incluyendo textos abstractos estructural o lingüísticamente complejos como, por ejemplo, manuales, artículos especializados y obras literarias.

3. Cuando participo en conversaciones en Inglés:

Puedo participar en una conversación de forma sencilla siempre que la otra persona esté dispuesta a repetir lo que ha dicho o a decírlo con otras palabras y a una velocidad más lenta y me ayude a formular lo que intento decir.

Planteo y controlo preguntas sencillas sobre temas de necesidad inmediata o asuntos muy habituales.

Puedo comunicarme en tareas sencillas y habituales que requieren un intercambio simple y directo de información sobre actividades y asuntos cotidianos.
Soy capaz de realizar intercambios sociales muy breves, aunque, por lo general, no puedo comprender lo suficiente como para mantener la conversación por mí mismo.

Sé desenvolverse en casi todas las situaciones que se me presentan cuando viajo donde se habla esa lengua.

Puedo participar espontáneamente en una conversación que trate temas cotidianos de interés personal o que sean pertinentes para la vida diaria (por ejemplo, familia, aficiones, trabajo, viajes y acontecimientos actuales).

Puedo participar en un conversación con cierta fluidez y espontaneidad, lo que posibilita la comunicación normal con hablantes nativos.

Puedo tomar parte activa en debates desarrollados en situaciones cotidianas explicando y defendiendo mis puntos de vista.

Me expreso con fluidez y espontaneidad sin tener que buscar de forma muy evidente las expresiones adecuadas.

Utilizo el lenguaje con flexibilidad y eficacia para fines sociales y profesionales.

Formulo ideas y opiniones con precisión y relaciono mis intervenciones hábilmente con las de otros hablantes.

Tomo parte sin esfuerzo en cualquier conversación o debate y conozco bien modismos, frases hechas y expresiones coloquiales.

Me expreso con fluidez y transmito matizaciones sutiles de sentido con precisión. Si tengo un problema, doy tanta cuenta como mis audaces se dan cuenta.

4. Cuando me expreso en inglés:

Utilizo expresiones y frases sencillas para describir el lugar donde vivo y las personas que conozco.

Utilizo una serie de expresiones y frases para describir con términos sencillos a mi familia y otras personas, mis condiciones de vida, mi origen educativo y mi trabajo actual o el último que tuve.

Sé enlazar frases de forma sencilla con el fin de describir experiencias y hechos, mis sueños, esperanzas y ambiciones.

Puedo explicar y justificar brevemente mis opiniones y proyectos.

Sé narrar una historia o relato, la trama de un libro o película y puedo describir mis reacciones.

Presento descripciones claras y detalladas de una amplia serie de temas relacionados con mi especialidad.

Sé explicar un punto de vista sobre un tema exponiendo las ventajas y los inconvenientes de varias opciones.
□ Presento descripciones claras y detalladas sobre temas complejos que incluyen otros temas, desarrollando ideas concretas y terminando con una conclusión apropiada.

□ Presento descripciones o argumentos de forma clara y fluida y con un estilo que es adecuado al contexto y con una estructura lógica y eficaz que ayuda al oyente a fijarse en las ideas importantes y a recordarlas.

5. Cuando escribo textos en inglés:

□ Soy capaz de escribir postales cortas y sencillas, por ejemplo para enviar felicitaciones.

□ Sé rellenar formularios con datos personales, por ejemplo, mi nombre, mi nacionalidad y mi dirección en el formulario del registro de un hotel.

□ Soy capaz de escribir notas y mensajes breves y sencillos relativos a mis necesidades inmediatas.

□ Puedo escribir cartas personales muy sencillas, por ejemplo agradeciendo algo a alguien.

□ Soy capaz de escribir textos sencillos y bien enlazados sobre temas que me son conocidos o de interés personal.

□ Puedo escribir cartas personales que describen experiencias e impresiones.

□ Soy capaz de escribir textos claros y detallados sobre una amplia serie de temas relacionados con mis intereses.

□ Puedo escribir redacciones o informes transmitiendo información o proponiendo motivos que apoyen o refuén un punto de vista concreto.

□ Sé escribir cartas que destacan la importancia que le doy a determinados hechos y experiencias.

□ Soy capaz de expresarme en textos claros y bien estructurados exponiendo puntos de vista con cierta extensión.

□ Puedo escribir sobre temas complejos en cartas, redacciones o informes resaltando lo que considero que son aspectos importantes.

□ Selecciono el estilo apropiado para los lectores a los que van dirigidos mis escritos.

□ Soy capaz de escribir textos claros y fluidos en un estilo apropiado.

□ Puedo escribir cartas, informes o artículos complejos que presentan argumentos con una estructura lógica y eficaz que ayuda al oyente a fijarse en las ideas importantes y a recordarlas.

□ Escrivo resúmenes y reseñas de obras profesionales o literarias.
Annex 2: Learning Style Questionnaire

Menú de navegación

☐ Test de Estilo

¿Según tu opinión, para aprender una lengua es necesario utilizarla?

☐ Prefieres lanzarte a la práctica y a la comunicación sin que se te pueda priorizar haber planificado y reflexionado sobre todos los detalles.

☐ Piensas que "se hace camino al andar".

☐ La reflexión puede venir después. Crees que la práctica hace maestros.

☐ Crees que antes de usar la lengua es necesario realizar actividades de aprendizaje suficientes y relacionadas con el uso que vaya a hacerse.

☐ Te gusta planificar y reflexionar antes de iniciar la comunicación.

☐ Te gusta pensar en los posibles caminos para resolver una tarea y enfocar con una cierta calma tus ideas antes de tomar decisiones. Crees que vale más pensar las cosas dos veces.

Continuar

Menú de navegación

☐ Test de Estilo

¿Es frecuente que asocies tus recuerdos a imágenes?

☐ Comprendes y retienes mejor las informaciones nuevas cuando te las presentan de forma gráfica, visual, con imágenes, cuadros, gráficos...

☐ Crees que una imagen vale más que mil palabras.

☐ Prefieres que los textos, si son largos, vayan acompañados de imágenes.

☐ Es frecuente que asocies tus recuerdos con palabras o frases.

☐ Prefieres tener las informaciones por escrito, en forma de texto, incluso cuando se trata de indicaciones orales.

☐ Escribes te ayuda a pensar. Para ti las palabras evocan y generan ideas.

☐ Crees que las palabras pueden expresar más que las imágenes.

Continuar
Menú de navegación

☐ Cuando abordas un trabajo, te haces una idea general del problema y del final a donde quieres llegar, aunque no tengas claros los detalles del recorrido. Avanza entonces por tanteo, basándote en distintas posibilidades hasta que las cosas parezcan irse organizando.

☐ Realizas mejor las ideas generales que los pequeños detalles. Puedes llegar a manejar distintas fuentes de información a la vez porque tomas de ellas aspectos generalizados que te sirven para tus objetivos.

☐ Puedes suceder que cuando estés en la fase de tanteo y de elaboración, te moleste (o incluso te críse) que te hagan observaciones de detalle que suelen parecerse secundarias.

☐ Te gusta avanzar paso a paso, sin pasar adelante si lo anterior no está claro, aun en el caso de que no tengas una representación de la estructura global.

☐ Preferirías no tener que manejar distintas fuentes o informaciones.

☐ Piensas que manejar informaciones sin conocer los detalles es como "pntear" y te crea inseguridad.

☐ No te gusta tener que hacer resúmenes pero tienes buena concentración para los detalles y los retienes bien.

☐ Piensas que con los esquemas se pierden detalles o información importante.

Continue

Menú de navegación

☐ Cuando aprendes te gusta descubrir las reglas por ti mismo, a partir de la observación y del análisis de distintos ejemplos.

☐ Crees que tienes capacidad de generalización, es decir, de llegar a la general desde lo particular.

☐ Cuando estoy aprendiendo una lengua me gusta hacer de "detectivo" para descubrir significados.

☐ La gramática podría ser diviertida como un juego de descubrimiento.

☐ Cuando aprendes te gusta tener primero la regla para aplicarla después a casos concretos.

☐ Tienes la impresión de que hacer lo contrario, es decir, infotir la regla general a partir de los casos particulares, es perder el tiempo.

☐ Prefiero aprender la gramática con oraciones sencillas que sean ejemplo de la regla.

☐ Si hay que hacer gramático, prefiero hacer ejercicios de aplicación de una regla.

Continue
Menú de navegación

- Cuando trabajas te gusta que alguien te controle un poco o asuma la responsabilidad de las decisiones.
- No sientes necesidad de que se te controle para organizar tu trabajo.
- Te gusta recibir una evaluación externa de tu trabajo. Que se te apruebe o se te critique.
- Te gusta evaluar tú mismo tu trabajo y superar tus dificultades y tus avances. Te importa sobre todo tu auto-evaluación.
- En general, crees que se obtienen mejores resultados en situaciones en las que se compite.
- Tu mejor estímulo es tu propio avance.

Menú de navegación

- Te gusta trabajar en equipo o con otra persona.
- Prefieres trabajar solo (-a), de manera independiente.
- Piensas que en el trabajo el intercambio de ideas y el debate son provechosos.
- La organización del trabajo en grupo te parece una pérdida de tiempo.
- Comunicar ayuda a clarificar las ideas. Tomar en cuenta otros puntos de vista y argumentar enriquece los resultados del trabajo.
- Cuando tienes que trabajar con más personas tienes la impresión de avanzar más despacio porque, ponerse de acuerdo lleva mucho tiempo.

Continuar...
Menú de navegación

- Aprendes mejor cuando el clima de aprendizaje es cálido y estableces relaciones de confianza y de empatía.
- Te interesan los aspectos culturales de la lengua y todo lo relacionado con las costumbres sociales.
- Te gustaría poder discutir algunas representaciones negativas o positivas sobre los nativos de la lengua que vas a estudiar porque te das cuenta de que esos "estereotipos" pueden influirte.
- No te basta con aprender un código. Comunicar con un extranjero es compartir e intercambiar, aunque no se domine su lengua.

- El problema que para tí tienen las lenguas es que no son siempre "lógicas". Prefieres los textos informativos a los textos de ficción.
- Los malentendidos podrían evitarse si las lenguas se utilizaran con lógica.
- En cuestión de conocimiento, quizás tienes la impresión de que las metáforas son recursos aproximativos que buscan compensar la insuficiencia de conocimientos científicos precisos, o bien revelan la incapacidad de expresarse de manera precisa.
- Te molesta encontrarte con excepciones cuando aprendes una regla.

Menú de navegación

- No podría vivir sin mi ordenador
- Internet es una herramienta importante para obtener información.
- Internet me ofrece muchos recursos para aprender lenguas

- En Internet hay demasiada información, me pierdo entre todo lo que puedo encontrar.
- Prefiero consultar un libro a consultar una pantalla.
- Los ordenadores y yo no nos llevamos bien.
### Tu perfil de estilos y estrategias de aprendizaje

<table>
<thead>
<tr>
<th>Activo: 0%</th>
<th>Reflexivo: 0%</th>
<th>Inductivo: 0%</th>
<th>Deductivo: 0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual: 0%</td>
<td>Verbal: 0%</td>
<td>Cooperativo: 0%</td>
<td>Individualista: 0%</td>
</tr>
<tr>
<td>Sintético: 0%</td>
<td>Analítico: 0%</td>
<td>Dependiente: 0%</td>
<td>Autónomo: 0%</td>
</tr>
<tr>
<td>Emocional: 0%</td>
<td>Racional: 0%</td>
<td>Positiva TIC: 0%</td>
<td>Negativa TIC: 0%</td>
</tr>
</tbody>
</table>

¡Enhorabuena por la reflexión que acabas de hacer! Tenlo presente en tu aventura por el aprendizaje de las lenguas. ¡Te será de gran ayuda!
Annex 3: Self-Assessment Test

Autoevaluación

Se trata ahora de que realices una autoevaluación de tu experiencia de navegación y lectura. Responderás a preguntas relacionadas con el proceso y resultados de la tarea.

1) El proceso de realización de la tarea
   1) Destrezas técnicas de uso de la informática
      - ¿Qué aspectos dominas mejor?

   2) ¿Cuáles te gustaría mejorar?

2) ¿Qué criterios sueles utilizar cuando navegas para seleccionar información? Señala la importancia que los distintos criterios tienen para ti según la siguiente escala (puedes incluir algún comentario si lo consideras conveniente):

<table>
<thead>
<tr>
<th></th>
<th>No lo tango en cuenta</th>
<th>Es un criterio pero no determinante en mis decisiones</th>
<th>Es un criterio que tengo muy en cuenta</th>
<th>Es el criterio fundamental para mí</th>
<th>Comentarios</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palabras clave según los objetivos</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atractivo del sitio: colores, diseño gráfico</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credibilidad del sitio (Indica algún criterio que utilices para establecer la credibilidad del sitio)</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3) Eficacia en los distintos aspectos implicados en la gestión de informaciones.
Señala las afirmaciones con las que te sientes identificado:
- He podido manejar informaciones de 2 textos.
- He podido manejar informaciones de 3 textos.
- He podido manejar informaciones de 4 o más textos.
- He podido establecer relaciones entre imágenes, documentos de texto, documentos audio y video, y complementar las informaciones de unos con las de los otros.
- He podido manejar informaciones provenientes de documentos en distintas lenguas.
- He utilizado diccionarios on-line.
- He sido capaz de hacer mis propias búsquedas, además de las direcciones http:// propuestas, y hacerlo de manera relevante para la tarea.
- He utilizado al azar los enlaces de los documentos.
- He utilizado de manera selectiva los enlaces de los documentos.
- He entrado al azar en los enlaces y luego efectuó una selección.
- He entrado en todos los enlaces que se propone un documento.
- Los enlaces han dispersado mi búsqueda.
- Los enlaces me han ayudado a comprender.

4) Estrategias de la interactividad y la cooperación
Señala tu uso y tu valoración de la interactividad según la siguiente escala.

<table>
<thead>
<tr>
<th></th>
<th>Raramente o nunca</th>
<th>Alguna vez</th>
<th>A menudo</th>
<th>Casi siempre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los sitios Web ofrecían recursos de la interactividad como blogs, foros, e-mail, y/o chats</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>En el caso de que lo ofrecieran, los he usado</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
5) ¿Cuáles de las direcciones http:// utilizadas te han parecido más interesantes y por qué?

6) La comprensión de la lengua me ha dificultado la realización de las tareas:
   O SI
   O NO
   Comentarios:

7) Señala una de las tres opciones siguientes para caracterizar tus conocimientos previos sobre el tema de la Cibertarea:
   O No tenía ningún conocimiento previo del tema
   O Tenía algunas nociones previas
   O Conocía bastante el tema

8) Otras observaciones, valoraciones y/o comentarios

II) El Resultado de la tarea
1) Valora los resultados de esta tarea utilizando la siguiente escala.

<table>
<thead>
<tr>
<th>Grado de satisfacción sobre tu uso de Internet para resolver las tareas propuestas.</th>
<th>bajo</th>
<th>regular</th>
<th>alto</th>
<th>muy alto</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>❌</td>
<td>❌</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>❌</td>
<td>❌</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>❌</td>
<td>❌</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

http://www.gaceta.es/internet-educacion/educacion-digitalec-(3-de-4) [26/03/2006 10:23:12]
2) Otras observaciones, valoraciones y/o comentarios sobre las mejoras, los problemas u otros aspectos relacionados con la realización de tareas y el uso de recursos de Internet en lengua extranjera

3) Puntos fuertes y débiles con respecto a la realización de tu propia tarea.

4) Puntos fuertes y débiles con respecto a la tarea propuesta.

Enviar cuestionario

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La orientación de esta CiberTarea y el presente cuestionario de autoevaluación son producto de la reflexión del GIAPEL en el marco del proyecto CIBERTAAAL.