



New Technologies and Genre Variation. Printed and Electronic Documents in Tertiary Education ESP' Courses

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ABSTRACT

New technologies are as present nowadays in university as they are in society in general, influencing all aspects of the teaching-learning dynamics. Within this electronic environment new genre types have arisen which should be as familiar to students as computers themselves. In this chapter the impact of technologies on genre variation is discussed, especially in relation to authentic material as teaching support. This influence is shown in a specific ESP area, that of English for Library and Information Science (LIS), examining the possibilities, based on the relationship between older and newer genres, that are brought into the classroom. An example of changes brought about by Information Technologies on a classroom project is given: this now involves using web sites as a resource for the construction of leaflets. Following this, some advantages derived from its implementation during two academic years are discussed. The conclusions point to the benefit that new genre exploration in the ESP classroom offers for the building of academic literacy at tertiary level.

KEYWORDS: Genres, new technologies, ESP methodology, tertiary education, English for Library and Information Science (LIS).

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I. NEW TECHNOLOGIES AND CHANGING GENRES

This paper focuses on the possibilities that the combination of genre approaches and new technologies brings into the classroom..

The concept of genre is not new, although it has been used in many areas and with many senses. Here genre is located at a discourse level, and related to the concepts of *discourse community* and *communicative purpose* (Swales, 1990; Bhatia, 1993), *socio-cultural context* (Berkenkotter & Huckin 1995; Huckin, 1997) *cognitive context* (Paltridge, 1994; 1995; 1997) and *conventions* (Bazerman, 2000). What differentiates genre from text type is the inclusion of parameters *external* to the text itself, but strongly determining it (Biber, 1988; 1989). The most immediate parameters are the sender, the receiver or addressee, the channel, and the purpose of communication. In other words, in order to be regarded as a genre instance, a text may not be studied without locating it in the actual context in which it is used.

On the other hand, the dynamic nature of genre, subject to changes like contexts themselves, leads Trosborg (2000: viii) to state: “Genres and genre knowledge can be more sharply and richly defined to the extent that they are localised (in both time and space)”. She also points to the fact of new genres arising as a result of new technologies (*ibid.*). Some of the contributions included in Trosborg (2000) are aimed at showing the dynamic nature of genres, as reflected in genre variation, and a vivid example is the one provided in Myers’ paper about the changes taking place in the genre *academic lecture*, with the introduction of *Powerpoint* in the classroom (Myers, 2000). These changes affect the structuring of presentations—which, rather than appearing in a sequential order, now appear as hierarchies—and the proper interaction audience-lecturer, as the text partially substitutes the lecturer’s voice, diverting the audience’s attention away from the lecturer. This way, instead of being transmitted via an authoritarian monologue, knowledge is transmitted through a finer rhetoric of persuasion. Having said that, Myers nevertheless observes that, even if *Powerpoint* brings substantial changes into classroom dynamics, and into the lecture genre itself, it is still the lecturer who decides how deeply it will be used, and for what purposes: “Things seem to have power—the computer, the lecture room, the notebooks. But they do not act apart from human strategies”. (*ibid.*: 187)

It is this idea of genres changing and even being replaced by others, but also depending on the use that is made of them, that guides the present paper. As Myers points out later “We both use genres and are channelled by them; that is the tension that must guide any of our analyses, whether of corporate annual reports, handbooks, e-mail, newspapers, or leaflets. Change comes, not from the inside or outside, but in that tension”. (*ibid.*: 188)

The rest of this article is aimed at describing how new technologies have influenced the appearance of new genres or the changes in existing ones, especially in the ESP classroom (if there exists any EFL² classroom where purposes are not specific, as Alcaraz 2000 argues). As an illustration of this, a project carried out in English for Information Science is presented; this

project involves the use of leaflets and web pages as two related genres, which represent somehow this tension between the conventional, printed message and the new, emerging, electronic one, which may replace or just complement it—we still do not know. What we do know is that every time our students have the chance to choose between an electronic document and a traditional one in order to carry out the same task, they are increasingly inclined to use the former, being more familiar with this type of support than many of us have ever been. Taking this into account, the usefulness of the tasks presented is evaluated through the comparison of some of the outcomes from this and previous years, when a more traditional approach, implying real visits to information centres instead of virtual ones, was used.

II. NEW TECHNOLOGIES AND ESP/ EAP TEACHING

The number of descriptions of ESP/ English for Academic Purposes (EAP) classroom approaches involving new technologies has steadily grown in the different EFL conferences and journals over the last few decades. In the Spanish Association of Applied Linguistics (AESLA) Conference held in 1987 on the topic of *English for Specific Purposes*, Civera Coloma and Pastor Abellán (1987) made claims about the benefits of introducing computers into language teaching, and on the interdisciplinary role they play. Of course, there is nowadays an area of research standing on its own—Computer Assisted Language Learning, CALL for short—which has developed specifically around the use of computers in language learning in general, and especially in English language teaching (see Chapelle, 2001). This is a weak CALL approach, in the sense that technology is considered mainly as a *tool* to facilitate learning, providing authentic material on which to work, rather than as the environment through which the whole learning process takes place, as it is often done in computer assisted instruction.

The first works written in Spain about the use of technologies in tertiary level English language teaching, especially in English for Science and Technology (EST), tend to give general ideas to be developed by using applications present in certain programmes, although the Internet in general, and all of its possibilities, is replacing older, specifically designed software. Bolaños Medina (1996), for instance, considers the Internet as a means for EST students to establish connections and exchange results. Pérez-Llantada Auría and Pío Alastrué (1998) analyse some outstanding features of emerging genres used in the academic world and framed within the Internet, namely *Discussion Lists*, *Electronic Bulletin Boards*, *Electronic mail (or e-mail)*, and *web pages* or *CVCW*. Needless to say, these genres are not exclusive to the academic world, although they are increasingly present in it, replacing little by little related genres in traditional support used for communication, or for information searches and exchanges.

Some of the aforementioned features are facilitated by the use of a different channel, such as the occurrence of specific rhetorical patterns; most ones, such as syntactic simplification and

the creation of a new language, are due to the fact that this language is closer to oral one, which means a relaxation in terms of formality or rigidity: “[...] the language used in this particular context becomes so distended, friendly and relaxed that it resembles to a great extent the patterns of oral conversation” (ibid.: 84). The clearest example of this relaxation can probably be found in postings to professional discussion lists, whose features as a new electronic genre, or *cybergenre*, are described in Luzón Marco (2001a).

Seiz Ortiz and Carrió Pastor (2001) examine the advantages the Internet provides for communicative, learner-centred, task-based approaches, and stress its role as a learning environment which favours holistic approaches, resembling the natural methods of learning. The *WWW*, as a learning environment, is characterised through five variables —student, instructor, content, channel and context— and the conditions and advantages for each variable are enumerated. Two key words or phrases in this and other works are *flexibility* and *freedom to choose*. The students' level of autonomy is enhanced, and the teacher's role becomes less salient with the presence of other “*learning supports*”. The authors also stress the fact that language is learnt as it is used, and on the centrality of ‘learning to learn’ through the fulfilling of tasks, performed in a significant, natural or *authentic* environment.

Many recent works provide ideas or experiences with different digital genres in Spanish tertiary education CALL applications. For instance, Giniénez (2000) focuses on e-mail in business communication for Business Studies, Luzón Marco (2001b) explores the usefulness of *OWLs* (Online Writing Labs) in the teaching of Technical English for Engineering, and in Bolaños Medina and Máñez Rodríguez (2001) different Internet tools are combined for group work in translation activities, reproducing the current translator's information searching procedures for the translation of web pages. Similarly, Barahona i Fuentes and Arnó (2001) describe a virtual EAP course within the *Intercampus* virtual learning programme settled in Catalan universities. The course involves working with web pages as raw material, and this contribution includes some very useful URLs³, especially for the teaching of writing. In the same volume, Sanz Gil and Serra Escorihuela (2001) show how to use hypermedia in learning to read scientific genres, and Coll García and Campoy Cubillo (2001) deal with possible interactive Internet applications in the classroom, developed in the context of EAP for Chemical Engineering. They also make suggestions for using archival applications and designing web sites with chemistry links, with varying degrees of autonomy. The instructor's role is still invaluable, nevertheless, for determining the match between task difficulty and student proficiency level: “It will be the task of the instructor to bridge the gap between the raw material and the aim of the activity through the adequate design of problem-solving tasks that challenge students intellectually and provide meaningful opportunities for language reception and production” (ibid.: 248).

After having revised some of the potentialities that Information Technologies (IT) offer for higher education foreign language instruction, some caveats are still present: to which point

can all this change classroom dynamics? Are we facing a new learning paradigm? Seiz Ortiz and Carrió Pastor (2001) pose a similar question: "does this resource provide any actual pedagogical innovation?" They leave the question open-ended, but they suggest that having lots of data available through the Internet does not necessarily mean a methodological revolution. WWW is, as they suggest, a *powerful tool* to enhance some aspects which are present in already existing theories: it allows us to put into practice in a quick and relatively easy way some of the principles inherent to communicative methodology and task-oriented approaches.

A further and related issue is that of autonomy: Sanz Gil and Serra Escorihuela (2001: 357-358) make a distinction between real tool manipulation and learning autonomy, as the former does not imply the latter: "Freedom to move within the hypermedia system does not necessarily mean being able to use it appropriately" (translated). If this is something not to forget when teaching English in general, in the case of *English for LIS*, students may be more familiarised with new technologies — sometimes even more than the instructor — so they can achieve a good level of autonomy in the use of these resources, generally feeling highly motivated to do so. Nevertheless, there is a danger, namely that of forgetting they are still learners, so we may overvalue their capabilities, especially when they have to guide themselves through the English language.

In the study described below, most students are considered as beginners, or false beginners, in many senses. As they are in the first semester of the first year, they are beginning to live a university life, and thus becoming autonomous in some respects; they are becoming immersed in higher education, a world that, in many cases, was completely unknown to them some months before, not only with respect to the topics studied, but even to the general academic dynamics; many of them — although this 'many' is little by little turning into 'some' — are not familiar enough with IT, even if they will specialise in it in a very short time and show a positive attitude towards it, as previously said. With respect to the English language, most of them are not so competent as could be expected after an average of eight years of instruction, being in general at a low-intermediate level, with certain heterogeneity with respect to skills and abilities.

It is therefore advisable to take a gradual approach, which helps students to depart from familiar practices and develop their abilities in the aforementioned respects. A useful way to accomplish this is by relating more traditional topics and practices to newer, computer-assisted ones, traditional genre types to digital ones, and general English language to a specific one, concerning particular topics and environments. The comparison of printed and related digital genres as described here, also brings up an awareness of genre dynamics, and a students' competence in genre recognition and understanding or genre *readiness* (Swales, 2001), something essential for the building of their academic literacy.

III. COMMUNITY INFORMATION SERVICES WEB PAGES AND PRINTED LEAFLETS AS RELATED GENRES

In the field of Information Science some attempts have been made to analyse new genres, commonly used for carrying out LIS tasks. Dillon and Gushrowski (2000) for instance, establish the characteristics of what they consider as the first uniquely digital genre, the personal home page. Their work shows that genre conventions are something which exist, and in this particular case, have been adopted very rapidly among the discourse community that uses them.

In Johnsen (2000) there is also an attempt to analyse online technical documentation, focusing on the role played by textual arrangement as a means of achieving perceptual cohesion, and in relation to the rhetorical clustering typical of the genre.

These are examples of a growing interest among discourse analysts on the one hand, and information specialists on the other, to obtain systematic descriptions of the emerging genres used in the IT field, as both poles of the information process — document producers and document addressees or users — need to share these standardised conventions for better mutual understanding. Similar concern has arisen among public document designers, especially since electronic publications have started to replace printed ones, with a need to ensure these documents are effective as a communication bridge between governments and society: see Janssen & Neutelings (2001), for instance, for linguistic descriptions of several types of Dutch public writing, such as brochures or parliamentary papers.

The genre instances used in the present description are *information services web pages* and *printed leaflets*. Below is a brief description of both genres according to their situational and contextual parameters, or genre defining characteristics, partly following Paltridge (1995; 1997): *Audience*: both genres are addressed to potential information services users, *i.e.* the community where the service — library, museum, etc. — is located; this can be the general population living in the area, or a given subgroup, for specific sections or services. There is a difference, though, in the case of web pages, as their digital nature makes them available to the whole world, so we can affirm that the number of potential visitors, and virtual ones in many cases, has been extended to anyone interested in the service, which may affect both linguistic style and content selection.

Writer: it has been often the central staff, depending on its level of importance, that has chosen the design and content of the leaflet, although in most cases it has been manufactured by printers or editors paid by the government or institution in charge. In the case of web pages, the decisions on content arrangement and style are increasingly taken by web designers, as this requires even more sophisticated and technical knowledge.

Channel: in the case of leaflets, the channel is the printed one, while web pages are digital. A big difference is that the digital channel permits, in many cases, to actually visit —

virtually — the centre as you enter the page, so the 'invitation to go or to make a better use of the services' turns into an 'invitation to read and move down the cursor'.

Setting: leaflets are designed and distributed mainly in the centres to which they refer, as small guides. They can also be found in information or administrative points or offices belonging to the same area of influence, depending on the type of centre. In the case of web pages, the way to get to them is as varied as the reasons users may have for viewing them. It may be the case that they come across them by chance, when looking for something else, etc. An interesting difference in relation to the setting is the possibility of moving around related links in the case of web pages, so the information can be contrasted or complemented instantly. The role played by staff in physical centres, as providers of further guiding and information, is passed via the sometimes unlimited link possibilities, with the added fact that most times staff or experts' e-mails are also provided. In case the 'visitor' wants to address them personally.

Communicative purpose: the main aim of both genres is to inform potential users about the centre's services, contents, arrangements, location, etc., and, in most cases, to persuade/invite them to make full use of its resources. This persuasive function is present in varying degrees, and possibly more in the case of museums and leisure centres, where visits are optional and depend on personal arbitrary decisions. In specialised centres, where more factual or technical information is offered, they are usually means to guide users so they can obtain the information required. It may be easier, nonetheless, to entice users who come across these pages when navigating on the web, to enter, via an attractive, appealing design. The communicative purpose in the case of web pages can range from providing information about the centre's content to, as was said before, actually slowing it (virtually), so the user can immediately access the stock, or, at least, the stock's most relevant data.

The main situational features just described will determine the textual and linguistic characteristics conforming both genre prototypes. Presentation, description and evaluation of discursive elements are to be expected, together with rhetorical functions of information and persuasion, as well as specific language connected to the centres and their reality. Stylistic features will tend to evoke in an attractive way some of the resources offered, and the devices used will vary depending on the channel. Accompanying the text, leaflets usually include photographs or drawings allusive to the most salient stock, or even maps with the centre's location. In the case of web pages, the visitor may find a comprehensive, virtual walk through the existing stock in two dimensions, or, at least, the possibility of all types of input — animations, sounds, etc. — besides the main information in HTML⁴ or similar languages. Figure 1 summarises the situational parameters, related to their communicative function, differences ranging mainly from the change from printed to digital form.

	LEAFLET	WEB PAGE
Audience	Direct users, potential consumers living in the info. Service area	People living in the area; web site "visitors"
Writer	Institution staff + editors, printers	Institution staff + web site designers
Channel	Printed document, conventional format (two-fold)	Digital
Setting	Area where the centre is located, centre itself	Digital context, connections to other links with related services or topics
Purpose	To inform users about the services (to invite users to make full use of them, or to contact them)	To inform users about the services and related ones, to <i>show</i> the services (virtual visits), or the stock's most relevant data.

Fig. 1. Situational parameters of Information services leaflets and web pages.

IV. DESCRIPTION OF A CLASSROOM PROJECT IN ENGLISH FOR INFORMATION SCIENCE WHICH INVOLVES THE USE OF LEAFLETS AND WEB PAGES OR, HOW THE PRESENCE OF NEW TECHNOLOGIES CAN AFFECT METHODOLOGICAL DECISIONS

Although other projects have been carried out in English for Information Science at the University of Murcia using specific genre types⁵, digital genres had not been used so much until now in the English classroom, as students already spend a good percentage of workshops in other subjects in the computer labs, especially from the second year on. The students' growing tendency to refer to the Internet indeed triggered the changes in the methodological design that will be described next.

IV.1. The Previous 'Traditional' Project: Visiting an Information Centre

In previous LIS curricula, students used to have at least one writing project in the English subjects, which in the first year was organised in the following way:

- After being introduced in other subjects to the concept of *Information chain*, i.e., information gathering, selection, processing, spreading, and use, during the first ninth of the academic year, students were given a set of instructions in order to write a description of an Information Centre.
- Groups of up to four had to be decided — although they were given the chance to work individually— and they had to choose an Information Centre, among the types provided in a list. The centre types to choose were changed from year to year, in order to have some variation over time, some of them being libraries, museums, archives and different

information centres present in social institutions, such as health centres, mass media, governments, youth information centres, etc.

- Once students had decided which centre to visit — by the middle of November — they had to prepare a checklist about what they expected to find in the centre in relation to the whole, or to a part, of the information chain.
- Students went to the centre and tried to complete this checklist or else complement it by *observing* every aspect in it. talking to the staff, etc.
- Once they had this information, they had to write a report describing the centre and making conclusions about what this task had meant to them. in terms of knowledge acquired. etc.. the deadline for the written work submission was the week before the Easter holidays.

For the evaluation, Hamp-Lyons' formative feedback profile for writing assignments was used — in Hamp-Lyons and Heasley (1987: 146) — adjusting it to the desirable competence level, and the specific area of Information Science, especially in terms of vocabulary. This way, the degree of competence at every discourse level, from successful communication of ideas and their arrangement. to spelling and orthography, was evaluated.

At the same time, this task had as its main purpose to ensure that students could properly use the English language to complete a project directly related to their speciality, so they also had the chance to apply knowledge acquired in other subjects, namely *Document Analysis, General Information Science -systems, networks and centres-* and *General Librarianship*. Some of them even dared to evaluate the centres as information units. although this was not required at this stage.

For a number of years, especially when English was implemented annually, this task worked well, and students felt at ease upon its completion, generally admitting, in their conclusions and other feedback, that it had been a rewarding experience, and a good way to learn English in a holistic way, though analytical procedures were used in the classroom as well. It seemed especially motivating for them to be able to choose a centre and visit it on their own, after having made other guided visits within other subject programmes. In addition, time constraints were not too narrow, so they could normally complete and submit their output within the deadline. The whole process took place over a period of six months, approximately between October and March.

IV.2. The Need for Change

Usually, changes are accompanied by further changes, and something of this kind happened in our centre. As many circumstances were different after several years. Technologies that used to represent a niche for students, with few laboratories to use and just *Word Perfect* and a few databases to practice on, became more sophisticated and user-friendly, and the possibility to access the Internet was more and more real. Having a building for the first time just for LIS and related degrees meant more facilities, a bigger number of computer terminals, and more time available to use computers freely, either in the labs or in the *ALAs*⁶ (free access computer rooms).

At the same time, there were changes in the curriculum, which meant a shortening in the length of courses, so many of those which had been implemented annually now lasted just one semester (15 weeks). Added to that, the English subjects, which before had been assigned 30 total compulsory credits, now had just 16 of optional nature for the whole degree, which meant that the content had to be more superficial. An immediate consequence of these changes was that students did not have as much time to carry out the writing assignment over time, as in the previous scheme they normally completed it by Easter. The writing project as such was abandoned, and shorter activities were developed instead.

During the academic year 2000-2001, the curricula had some minor changes again, and English subjects recovered some credits, the first year course being compulsory again, and having 7 credits. The writing assignment based on the visit to an Information Centre was reintroduced in the syllabus, but this time the outcomes were very different; possibly because of time pressure, students did not pay as much attention to the message form, and the projects did not reach the same standards as before.

Students showed a tendency to choose, whenever it was possible, the centres they had already been to during other subjects' visits; this would not have been so bad had it not been for the fact that they also tended to download those centres' web pages (that had not previously existed) and in some cases, when they happened to find the information in English, even to print it as such without altering a comma! Of course, they were so proud of their success in finding URLs and even of collaborating on their diffusion, that they were not really aware that in some cases their work was expected to be as original as possible. It became clear that there was not either enough time to properly develop the project, or enough motivation, which was moving towards making good use of the new technological resources and potentials available.

IV.3. The Current Situation

During the first semester of the academic year 2000-2001 a new project, based on the previous one, but within a CALL environment, was started. It has been implemented again during the academic year 2001-2002. Its ultimate goal is the elaboration of a leaflet about information centre services, and the procedure is the following:

- *Analysis of leaflets about library services:* Students are firstly exposed to different types of leaflets about different library services in a British library network: Devon County Council Libraries. Having already worked on and read one of these leaflets in a normal class, they analyse in one of the workshops or practice sessions at least four of these leaflets as genre instances, paying attention to the relation between pragmatic purpose (*for what* the text has been produced), audience (*to whom* it is directed), content (*what* it is about, *what types of information* it contains), and the language (*how* it has been designed and written, including verbal and non verbal language). A group discussion follows in which these relations are commented on and further highlighted. The teacher's role in this session is mainly that of a moderator, checking that every ten minutes a different leaflet is being analysed in each group, assuring that all of them examine a variety of samples, and helping to collect group conclusions in a final, general conclusion. This takes place at the end of October / beginning of November.
- *Visiting a virtual information centre:* in another practice session, this time at the computer lab, students, either in pairs or alone, select a web site belonging to a given type of information centre (this and last year they have been museums) in any English speaking country, with the help of a search engine. Once the page has been chosen their work consists on selecting the information they will use, having completed the necessary changes, to design a leaflet on the same services. The instructor's role is mainly that of an advisor, helping firstly to choose the adequate search engine and searching terms, and secondly ensuring that the page selected has enough information to work on. This is done in the first week of December, before starting a section devoted to Museums, so it serves as an introduction to this topic area.
- *Designing of the leaflet with selected information:* lastly, for the production of the leaflet, students combine their knowledge of desktop-publishing with their target-language linguistic skills to produce a leaflet which contains the conventional genre features already highlighted. It is mainly, but not entirely, a rewriting exercise, in which summarising and information rearrangement can be complemented with design and document production techniques with the help of computer applications, and in which creativity also plays an important role. The deadline for handing in these leaflets is the week before the Christmas holidays.

IV.4. Discussion

Some differences must necessarily result from the contrast between the prior projects and the current one, and other positive points can simply be inferred in relation to the new curriculum.

- From a comparative angle, the *time spent* visiting the centre before was more than the time required to find and visit a site, which is important taking into account that time constraints in the new curriculum are higher. All steps can now be fulfilled without leaving the centre, and within the hours established for the English subject.
- With respect to the tasks' *design*, there is a change from emphasis on writing from scratch to selecting and summarising information—or rewriting—which may be also more realistic for a senior subject, and for mixed-ability groups, as group negotiations are to be done in relation to already-existing material.
- A further advantage in relation to students' performance is the elimination of risks and temptations of either writing in Spanish and then translating into the target language—something occasionally done in the case of the first project—or else downloading the whole content in English and printing it.
- Higher attention is paid to document design, idea arrangement and appropriate language use, and the result is a more genre-oriented activity. Connections between linguistic form, communicative function, and other contextual parameters are explicitly present during the whole process, apart from the benefit of relating and manipulating different genre types in order to achieve discourse competence which, in turn, constitutes a key element for professional expertise (Bhatia, 2001).
- The current project shows a higher level of integration within the syllabus, acting as a link between previous units, with respect to genre conventions, and subsequent ones, concerning the topics dealt with, so the whole presents a more complete appearance.
- As for the current project itself, the combination of tasks seems to be motivating in general, as it allows students to practise a number of different skills even more akin to their specialisation: finding information online, selecting adequate sources, extracting relevant information and preparing a "secondary" or "tertiary" document for a given addressee, are all practices required of an information manager. Even if the previous project was linked to the documentary claim, mainly by observing and describing, in this case students immerse themselves in this claim, with the help of technology.
- A glance at the real or virtual visits carried out and listed in the appendix for the last three academic years, allows us to form further conclusions about the benefits of this change:
 - Even if it is good for students to apply their specialised incipient knowledge in observing the immediate context, mostly in the regions of Murcia and Alicante, by using the "here and now" principle, this can be done even unconsciously when doing some other activity in daily life or as part of other subjects' requirements.

But what the Internet really provides is a much more flexible concept of the "here and now", and the possibility of visiting far away centres should indeed help students to develop a more flexible attitude towards other cultures and realities, and to be aware of other library and information practices.

- The possibility of choosing from a nearly unlimited number of target centres adds interest to the tasks, which students can adjust to their particular interests or tastes to a certain degree.
- The work's external conditions have served to improve it, and the use of computer support seems to influence the number of members per group, as reflected in the appendix. This decrease might finally result in higher effort and involvement by each of the group's or pair's components.

V. CONCLUSIONS

This article has attempted to demonstrate the benefits of CALL approaches for ESP tasks design, and the advantages that can be brought up through the contrast between older and newer genres, or, to put it in a more appropriate way, between printed support informative documents and digital ones.

The projects carried out before and the last two years cannot be compared in terms of linguistic output, as they do not require the fulfilment of same tasks, nor do they have the same constraints; but both share the idea of using the English language as a vehicle for communication (Williams, 1994), in a rather authentic way, possibly more so in the second case.

The growing pervasiveness of digital genres has been exposed through an example of how syllabus design can be altered in order to adjust to new curricular and social demands. Helping students to attain digital literacy is becoming a must in digital societies, but especially in Information Science (Bawden, 2001: 242).

On the other hand, in the project described here, the Internet is no more and no less than a powerful provider of updated *materials*, which students themselves have to find, select and exploit in order to carry out their tasks. It can replace much of the printed material needed before as classroom material, on which students have to apply their knowledge. Likewise, material provision, previously pertaining to the teacher's realm, is now part of the procedure which can also be *evaluated*.

The advantages of using project approaches like the one described, which bring digital genres into the ESP classroom and relate them to printed ones, can be summarised as follows:

- Computer/ Internet literacy is enhanced among students in the first year;

- Traditional and newer supports are linked, and through this contrast students are also sensitised towards genre characteristics and genre variations (relationship between form and content);
- Motivation is increased by introducing authenticity into materials and tasks, giving students the chance to practice some of the skills required in their future professions;
- Projects like this, and CALL approaches in general, allow the integration of some of the skills practised in the English classroom and in content subjects. In this particular case, the 'information chain' is recreated in the classroom, using computers as a tool, and English as the medium.

NOTES

1. English for Specific Purposes
2. English as a Foreign Language
3. Universal Resource Locators, or "addresses"
4. HyperText Markup Language
5. In Fernández Toledo (1997) a project involving writing book reviews is described.
6. Aulas de Libre Acceso.

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APPENDIX: Museunis visited in the academic year 1999-2000, and virtual visits to museum pages carried out in the years 2000-2001, 2001-2002

Academic year 1999-2000 "real" visits

TITLES / CENTRES	GROUPS	Number of components
Murcia Regional Library	6	5 groups: 4 comp. 1 individual
Simancas General Archives (Valladolid)	1	4
"Museo de la Ciudad de Murcia"	1	4
The public libraries in Alicante	1	4
Fernando de Louces library (Alicante)	1	2
Lorca Council Archives (Murcia)	1	1
Cieza public library (Murcia)	1	2
Luis Vives university library (Univ. of Murcia)	1	4
Puente Tocinos Public library (Murcia)	1	4
<i>La Opinión</i> (regional newspaper inf. centre)	1	2
<i>Pilar Barnés</i> Public Library (Lorca-Murcia)	1	4
"Visit to the new university library of Alicante"	1	3
"Visit to the periodicals library at the Economics Faculty" (Murcia University)	1	4
Central Archive at Alicante University	1	3
<i>Bellas Artes Museum</i> (Murcia)	1	4
<i>Informajoven</i> (Murcia)	1	4
<i>Sal-zillo</i> Museum (Murcia)	1	4
<i>Sivasa</i> Museum (Cieza- Murcia)	1	3
<i>Science and Water Museum</i> (Murcia)	1	2
"Biblioteca Nacional" (Madrid)	1	3
University Library: Education (Murcia)	1	4

Acsceniic year 2000-2001 virtual visits

TITLES	GROUPS	Number of components
The British Museum (London)	5	1 person in 4 of them, 3 people in one
Whitby Museum (Britain)	1	1
<i>Snite</i> Museum of Art (USA)	1	2
Museum of Advertising and Packaging (Gloucester- Britain)	1	4
The Natural History Museum (London)	1	2
Leonardo Museum (Museum of Science- Boston- USA)	1	1
Franklin Museum (USA)	1	1
The National Gallery — London	1	4
MLA La Jolla (California)	1	2
The Auckland Art Gallery (New Zealand)	1	2
Museum of London services	1	1
Beckford's Tower and Museum (Britain)	1	1
Yorkshire: What to do guide (Britain)	1	1
Sheffield Bus Museum (Britain)	1	3
Bramah Tea and Coffee Museum (Britain)	1	4
Geffryce Museum (Britain)	1	2
The Toy and Miniature Museum of Kansas City	1	1

Academic year 2001-2002 virtual visits

TITLES	GROUPS	Number of components
MoMA (Metropolitan Museum of Arts- N.Y.)	4	2, 2, 3, 3
The Natural History Museum (London)	4	2, 3, 2, 1
Leeds Art Collection Fund (Leeds)	1	2
National Museum of Women in the Arts (Washington- US)	1	3
The Scientific Museum (Spain)	1	1
the Museum of Science (Boston. US)	1	2
Manchester Museum of Science and Industry	1	2
Guggenheim Museum in New York	1	3
American Sport Museum and Archives	1	3
Beatles Museum (Germany)	1	2
National Building Museum (Washington D.C.)	1	3
Maritime Museum of British Columbia (G.B.)	1	2
The Museum of Fine Arts (Boston)	1	1
The Discovery Museum (Mass., US)	1	1
National Gallery of London	1	3
LACMA (Los Angeles Metropolitan Museum)	1	2