Subject Centre C&IT Supplement

June 2002

Contents

Introduction – Janet Bartle (Editor)

The supplement accompanying this issue of the Subject Centre's newsletter, *Liaison*, is devoted to C&IT - Communications and Information Technology. It features a collection of articles from a number of people working in our discipline areas who have to some extent or other incorporated C&IT into the teaching and learning environment.

We begin with an update from **Roel Vismans** on the Subject Centre's Learning Technology Special Interest Group, the recent creation of which reflects the Subject Centre's desire to enhance its activity in this area.

World-renowned CALL writer, researcher and practitioner, **Graham Davies** gives an account of the wealth of learning opportunities afforded by ICT for students of languages but warns of the sometimes underestimated training needs associated with using ICT. He suggests that *"E-learning is more suited to training rather than education"*.

In an adaptation of her keynote speech to the EUROCALL 2001 conference, **Gabrielle Hogan-Brun** discusses *Communities and Contexts of E-learning in a Global Age: A Plurilingual Approach*, asserting that *"Reflective and adaptive approaches to teaching and learning will continue to be required to carefully integrate and counterbalance virtual with social learning"*.

There are case studies from practitioners. Firstly, **Rhian Davies**, who as a result of her work with electronic texts claims that IT may help students to *"develop new ways of reading"*. Secondly, **Katherine Fenton** whose development of a web-based version of a teaching program has led to, among other things, an exploration of *"the pedagogic value of multimedia electronic editions of humanities texts"*. Finally, **Adela Gánem Gutiérrez**, whose study aims to *"contribute to a better understanding of computer technology and materials design within the context of dyadic peer collaboration in the modern languages classroom"*.

Henry Rogers provides an overview article on the educational use of computers in linguistics. He states that *"Although some linguists still rely on 'classic' techniques of data analysis -- pencil and file card -- increasingly, linguistic field work has been moving towards greater use of computers"*

We end with a report from **Fred Riley** on the recent workshop on computer assisted assessment, (CAA). The high attendance at this event reflects the growing interest in CAA and particularly in the related issue of interoperability.

It is perhaps interesting to note the different terms used in this publication alone – *ICT, C&IT, Learning Technology, e-Learning, IT, Electronic Resources, CALL (Computer Assisted Language Learning), computer mediated learning, CAA (Computer Assisted Assessment)*. Regardless of the terminology the important message that emerges from each article is the importance of pedagogy. Technology should be seen as a tool for learning, communication, and collaboration. Teachers and learners don't just need access to *innovative technology*. They need access to people doing *innovative things* with technology. We hope to show some of that innovation in this publication.

Launch of the Subject Centre's Learning Technology Special Interest Group

Roel Vismans (University of Hull)

The work of the Subject Centre's C&IT Centre focuses on pedagogic issues surrounding the use of communication and information technology in languages, linguistics and area studies. The term learning technology is more appropriate in this role than C&IT.

At its January meeting, the Subject Centre's Management Group decided to launch a Special Interest Group for Learning Technology to support and inform its work. The Learning Technology SIG met for the first time on 15 April 2002.

The remit of the Learning Technology SIG has been agreed as follows:

- **Advising** the Subject Centre on the level and nature of support needed by the Subject Centre's academic community, including technical support and the annual programme of events (workshops, seminars and visits to institution);
- **Mapping the sector** in order to gauge use of learning technologies, hardware, training, and to identify expertise and needs, with as the likely outcome a database of expertise;
- **Identifying wider audiences** and their needs, abilities and skills: the mapping exercise is likely to result in the identification of academics with different levels of knowledge and expertise in using learning technology, ranging from those with little knowledge and a need to catch up, to those at the forefront of new initiatives in the use of learning technology. Managers and decision makers, i.e. those people who influence allocation of budgets will be an important audience too;
- **Providing realistic advice** on costing and funding; it is particularly important that the sector gets away from the notion that the use of learning technology saves money - in fact the opposite is true and expectations also increase with use of the web. The SIG can act as an umbrella group identifying sources of funding and generating ideas for bids, advise managers on behalf of the Subject Centre on funding proposals, liaise with funding bodies to highlight areas where funding is needed, and produce a fact sheet on applying for funding.

A way forward that the SIG is currently investigating is based on the idea of the New Opportunities Fund (NOF) in the secondary sector. It defines a base level of learning technology competence for staff and has identified a need for basic IT training which is being delivered in a subject specific context.

The Learning Technology SIG consists of:

- Janet Bartle, the Academic Co-ordinator of the Subject Centre's C&IT Centre, based in the Language Institute at the University of Hull.
- Sue Currell, Leverhulme Postdoctoral Research Fellow at Nottingham and also a member of the Subject Centre's Area Studies Specialist Advisory Group. Sue's research and teaching interests include the use and implementation of IT into humanities teaching.
- Graham Davies, former president of EUROCALL. Graham has edited and contributed to a wide range of publications on research into computer-assisted language learning.
- William Haworth, Lecturer in Spanish at Liverpool John Moores University. William has been Director of FDTL project WELL (Web Enhanced Language Learning). William is also a member of the Subject Centre's Languages Specialist Advisory Group.
- Marie-Noëlle Lamy, Lecturer at the Open University where she helped create their first ever French courses. Marie-Noëlle is a specialist in Open and Distance learning and in C&IT and is also a member of the Subject Centre's Languages Specialist Advisory Group.
- Tony Mcenery, Head of Department of Linguistics at Lancaster University. Tony's research and teaching interest is in the field of corpus linguistics.
- Jim Milton, Director of the Centre for Applied Language Studies at Swansea. Jim has a background in linguistics and TEFL and is involved in a number of computer and internet-related projects.
- Marina Orsini-Jones, Head of Italian at Coventry University. Marina is a member of the team that produced *La neve nel bicchiere*, a multimedia CD-ROM for students of Italian and has carried out a lot of work in using VLEs for language learning.
- Roel Vismans (Chair), Director of the Language Institute at the University of Hull. Roel has been director of FDTL project SMILE and directed the development of Lagelands, a beginners course in Dutch offered through the Merlin electronic learning environment.

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"…ICT offers a wealth of learning opportunities for students of languages, and the discrete use of computers in the classroom can undoubtedly enhance a language teacher's performance, but educational administrators and business training managers often have a blinkered view of computer technology, perceiving it as a way of automating the learning process and saving money on staffing…"

ICT and modern foreign languages: learning opportunities and training needs

Graham Davies

(Adapted from an article to be published in 2002 in Cuadernos de Filología Inglesa 11, 1: Monograph Issue, New Trends in Computer Assisted Language Teaching/ Learning, Servicio de Publicaciones Universidad de Murcia, Spain.)

The computer: panacea or delusion?

Language teachers have been using Information and Communications Technology (ICT) in the modern languages classroom for over 20 years. The boom period began in the early1980s with the advent of the microcomputer, which opened up an exciting new range of learning opportunities for students of languages. The computer was hailed by enthusiasts as the panacea, but after the initial period of euphoria many teachers became disappointed with what the computer appeared to offer. This is a fairly typical sequence of events whenever a new technology becomes available to teachers. Oppenheimer (1997) writes:

The cycle began with big promises backed by the technology developers' research. In the classroom, however, teachers never really embraced the new tools, and no significant academic improvement occurred. (Oppenheimer 1997:45)

Why do new technologies fail to live up to their expectations?

The remainder of Oppenheimer's article, which is significantly entitled "The Computer Delusion", points out that few lessons have been learned from past mistakes - a view that I have expressed myself in an article entitled "Lessons from the past, lessons for the future" (Davies 1997). The key question that needs to be asked is: Why do new technologies fail to live up to their expectations? There are a number of factors that Oppenheimer mentions in his article, but one of the main reasons is the failure to allocate a substantial budget for teacher training after the initial purchases of computer hardware and software have been made. This is rather like buying a car without setting aside a budget for driving lessons. It is not the hardware that is at fault, nor the software that runs on it; it is the failure to train teachers to make the best use of the hardware and software.

The need for training

Training, unfortunately, is one of the budget areas that administrators perceive as non-essential, and it is therefore often the subject of financial cuts in times of economic restraint. Continuing the analogy of the driving test, some administrators perceive ICT training as a one-off event: once you have learned to "drive" a computer you don't need any further training. But computer technology changes so rapidly that constant and regular training is essential - and this is a major cost implication that is all too frequently overlooked. As for the budget, the crucial question is not the size of the budget but how it is divided up. My personal recommendation - and one that I used to follow as a language centre director is:

30% hardware
30% software
30% staff training and materials development
10% contingency (unforeseeable costs)

Training may take a variety of different forms, e.g. staff may take time off to follow an intensive course, or they may be funded to attend a conference in order to update their knowledge. Above all, training for language teachers has to address their specific needs. A little and often is recommended.

The dream - or nightmare?

ICT offers a wealth of learning opportunities for students of languages, and the discrete use of computers in the classroom can undoubtedly enhance a language teacher's performance, but educational administrators and business training managers often have a blinkered view of computer technology, perceiving it as a way of automating the learning process and saving money on staffing.

In 1992 I wrote a description of an imaginary scenario as an illustration of how business training managers perceived computer assisted language learning (CALL) in the early 1990s. This fully-automated, programmed-learning approach was in vogue for a number of years. It derived to a large extent from the dreaded three-phase language lab drills: Stimulus - Response - Feedback

To some people this was a dream; to others a nightmare.

The considerable learning opportunities that computers offer were not fully exploited in the early days. It was therefore easy to dismiss computers as "drill-and-kill" machines.

"It's not so much the program: more what you do with it: the importance of methodology in CALL"

Thankfully new ideas were forthcoming. Computers could do more than offer automated gap-filling and multiple-choices exercises. The following list is by no means exhaustive:

- Reordering exercises - e.g. line and paragraph reordering
- Text manipulation - including the innovative total deletion exercise
- Word games
- Action mazes
- Simulations
- Adventures
- Discovery and exploratory programs
- Guided writing programs
- Reading comprehension exercises - including timed reading
- Listening exercises
- Building a personal database, e.g. vocabulary, grammar
- Email activities

In addition, there was a move away from the behaviouristic, teacher-independent learning scenario. As long ago as 1986, Chris Jones wrote an article with a title that says it all: "It's not so much the program: more what you do with it: the importance of methodology in CALL" (Jones 1986). Computer programs, he pointed out, have to be integrated into the classroom in just the same way as other materials. His message is clear: Don't try to remove the teacher from the language learning process.

Jones's advice is just as valid today as it was in the mid-1980s:

- Try it and see what happens. Don't pre-judge.
- Don't expect the program to do all the work.
- If things don't work out, don't automatically blame the program.

The problem may lie elsewhere. Above all, use your imagination. (Jones 1986:178)

The dream revisited

Warschauer (1996) distinguishes three main phases of CALL:

i. Behaviouristic
ii. Communicative
iii. Integrative:
  a. Multimedia
  b. Internet

At the time of writing this article, we are well into phase three. We have progressed beyond the behaviouristic phase, which began with the first CALL programs in the 1960s and extended into the early 1980s. Since the late 1970s we have dabbled in various ways with the communicative approach - and will probably continue to do so for some time.

Multimedia - a pedagogical step backwards?

Multimedia CALL, which became widely available towards the end of the 1980s, was a breakthrough insofar as it offered high-quality sound and video that could be integrated with the well-established combinations of text and graphics. Initially, multimedia was only made possible via interactive videodiscs, which required expensive and cumbersome equipment. These were supplanted by CD-ROMs, which ran on much less expensive and more compact equipment, but the video quality they offered was pitiful compared to that offered by the earlier 12-inch videodiscs. This forced CALL software developers to take a major leap backwards. Pedagogy was sacrificed at the expense of technology, and few imaginative, language-oriented simulations were produced for many years. It is only recently, with the advent of DVDs, that video quality has caught up with that offered by older technology.

More recently, we have seen programs incorporating speech technology - formerly the preserve of institutions with huge R&D budgets - and it is now possible to interact with a computer using one's voice as well as the keyboard and mouse.

The Internet - another step backwards?

There is no doubt that the Internet - especially the World Wide Web, which is a subset of the Internet - has made an enormous impact on many people's lives. When the first Web browser was released in 1993 it became possible for the layperson to access information that previously only computer scientists had been able to retrieve using more complex tools.

It did not take long for teachers to realise what a valuable source of information they now had at their fingertips - information that they could download and exploit in the classroom. Later on, the Web was used to store and present interactive exercises. But then pedagogy took another leap backwards, as most of the earlier Web-based exercises were just sets of multiple-choice or gap-filling drills of the "point-and-click-let's-move-on-quick" variety. Web-based interactive materials have undoubtedly improved but they have a long way to go before they catch up with the pedagogy and functionality offered by CALL programs delivered on CD-ROM or DVD. Only the delivery medium has improved, as Web-based activities can be accessed anytime and anywhere - at least in theory.

New Learning Environments

The Web has initiated a veritable revolution in education, especially in the areas in distance learning and New Learning Environments (NLE). NLE has become closely associated with the Web. I say "associated with" because NLE is a difficult term to define precisely. Originally, NLE was associated with a wide range of technologies and their applications to learning. It embraces a vision of learning that encourages learner independence (learner autonomy), and offers opportunities for distance learning and life-long learning, with the teacher becoming more of a facilitator than instructor. In recent years, however, the focus in NLE appears to be on the Web as the main delivery medium. My personal view is that this focus is far too narrow, as it overlooks the benefits of other tried and tested technologies. But educational institutions are rushing headlong into putting all their learning materials on the Web, in spite of the fact that there are many aspects of CALL that cannot (yet) be executed properly on the Web. CD-ROMs and DVDs - and even the interactive videodiscs of the 1980s - are far superior at handling sound and video, for example, which is why a hybrid approach is necessary. Furthermore, the role of the teacher in the language learning process is crucial to success.

The Web is undoubtedly a remarkable invention. Felix (2001) presents a comprehensive survey: a wealth of information on websites that learners and teachers of languages may find useful, as well as a number of detailed case studies and reports on research into students' and teachers' attitudes to learning languages via the Web. At the beginning of her work Felix makes the following statement - which should be heeded by all

Web enthusiasts:

…it takes a very special person to learn and, especially, speak a language without face-to-face communication. (Felix 2001:8)

In her survey of available Web materials, it becomes clear (thankfully) that relatively few websites attempt to take the teacher out of the language learning process:

…what is freely accessible on the Web is often only part of a larger package that also invariably includes face-to-face teaching. It is likely that the most exciting learning takes place off-line in the creative processes negotiated between teachers and learners, sometimes across continents, in which the Web features as a tool rather than instructor. (Felix 2001:190-191)

Do we really want to deliver whole courses via the Web?

The potential is there, the learning opportunities are there, but are the "customers" there? Evidence is already emerging from North America that e-learning courses do not recruit well:

In 1997, facing a projected 50 percent increase in the state's student population over the next decade, Utah governor Mike Leavitt announced the formation of Western Governors University, a cyber-college backed by governors from 19 states that now offers online courses from 40 schools (…) By January 2000, Western Governors University had enrolled a mere 200 degree-seeking students. (Press & Washburn 2001)

There is no question that the Web is impressive as a collection of reference materials and as a delivery medium. It's a huge library that is accessible from your home, and it contains an increasing wealth of resources for language teachers. But do we really want to deliver whole courses via the Web? Do we really want to deprive young people of the valuable experience of leaving home, studying and socialising with their peers, joining societies, going to clubs and parties, travelling, and falling in love? Do we really want to breed a generation of screen-gazing zombies? I fear that as e-learning expands we are losing sight of the essential difference between education, the growth of the self for one's own lifelong purposes, and training, the shaping of an individual for others' short-term purposes. E-learning is more suited to training rather than education. And who is going to employ someone who has obtained an e-languages degree? Most employers expect a languages graduate to have had many hours of face-to-face contact with native speakers and, preferably, to have spent a substantial period of residence abroad. Assessment is another issue: I would expect a languages graduate to have passed written and oral examinations that had taken place in a properly controlled environment.

The web offers considerable opportunities for the delivery of training materials

Learning languages via the Web is a controversial matter, but there is no question that the Web does offer considerable opportunities for the delivery of training materials. In the following sections I focus on the ICT4LT website as an example of a collection of ICT training materials for language teachers. I examine the aims behind the site as a whole and the pattern of visits to the site, discussing the key issues and drawing conclusions based on an analysis of the pattern of visits.

ICT4LT: background

The ICT4LT website is the outcome of a project funded under the Socrates Programme of the European Commission and is located at http://www.ict4lt.org. It is the result of over two years' intensive work by an international team of experts during the period September 1998 to December 2000. The website offers 15 training modules in ICT for language teachers at three different levels in English, Italian, Swedish and Finnish, and it is continually updated.

ICT4LT: analysis

Is the Web really interactive?

A key question that has arisen as a result of piloting ICT4LT is: To what extent do people perceive the Web as an interactive learning environment? The evidence from the ICT4LT statistics is revealing:

The ICT4LT website received around 40 000 "hits" in the three-month period September to November 2001. This is an impressive indication that the site is regarded as a valuable bank of materials. In the same three months, feedback from visitors to the ICT4LT discussion list was zero. No one, apart from myself and one other member of the ICT4LT management team, contributed a single email to the discussion list, and I received no more than six personal emails from visitors to the site, all of which requested rather than offered information. This is in spite of the fact that the ICT4LT site contains numerous discussion topics to which site visitors are invited to contribute. This trend appears to be typical of the Web as a whole, i.e.

- Web people are habitual "lurkers".
- Web traffic is predominantly one-way, i.e. from the Web to the user.

Some means must therefore be found to stimulate feedback and debate among Web users. It is likely that this will require more intensive online tutoring.

Where do visitors to ICT4LT come from?

A high proportion of visitors are based in educational institutions. Exact figures are difficult to come by, as often the visitor only leaves a numerical trace. The geographical pattern of visits to the ICT4LT site as a whole in the six-month period June-November 2001 is, however, revealing, and the figures reflect what is already known about the Web in general:

- The Web is not World Wide.
- Access to the Web is restricted to the richer, liberal countries of the world, i.e.
  (i) those that can afford connectivity
  (ii) those that allow people free access to information.

We have a long way to go before the dream of access to information anytime and anywhere on the Web is realised.

So what do ICT4LT visitors want?

Basically, they want information. An overwhelming number of visitors enter the ICT4LT site via the Index page and the language-specific Homepage. They start with an overview of what the site is all about. They then progress to the Contents page, which contains a list of the 15 ICT4LT modules.

The Glossary of Terminology and the Resource Centre are visited more than any of the ICT4LT modules, except Module 2.2 (Introduction to multimedia CALL), which is marginally

ahead of the Glossary in terms of numbers of visits. This seems to indicate that a high proportion of visitors are just looking up information. In addition, people regularly navigate from links in the main modules to the Glossary and the Resource Centre.

A fuller and more recent analysis is available on the English language homepage of the ICT4LT site: http://www.ict4lt.org

A high proportion of visitors to the ICT4LT site appear to be novices.

The two modules that offer a general introduction to new technologies and language learning and teaching have remained for a long time near the top of the list of the most visited modules. Does this indicate that there are still a lot of newcomers to CALL out there? The answer is probably "Yes, there will always be beginners".

Generic text tools in the MFL classroom

Module 1.3, which focuses on the use of generic text tools in the languages classroom, declined sharply in popularity a few months ago, but it is now creeping up the list again, possibly as a result of the new information we have provided on PowerPoint and how to incorporate sound and pictures into word-processed documents and PowerPoint presentations. Language teachers in the UK are strongly encouraged to make use of generic software tools, including word-processors, database software, desk-top publishing packages, and even spreadsheets. This makes sense, as the tools are available in most educational institutions, so additional software purchases are not necessary. On the other hand, the preparation time that is required to make good use of such tools is often discounted. Furthermore, some educational administrators simply wish to avoid setting aside a reasonable budget for the purchase of dedicated CALL materials, so there may be an ulterior motive in encouraging the use of generic packages: i.e. save money on software and make the teachers work harder.

Multimedia CALL

Module 2.2, Introduction to multimedia CALL, has remained consistently the most popular module for many months. The module begins by defining multimedia and looking back at earlier developments in interactive video. Technical aspects are briefly covered, and a representative selection of CD-ROMs/DVD-ROMs is described, giving the reader an overview of the wide range of learning opportunities the medium offers.

Concordancers

Module 2.4, which deals with the use of concordance programs in the languages classroom, has climbed steadily from a very low position and has maintained its present position at No. 5 for several months. This seems to indicate a shift in methodology. Concordancers are useful in the following ways:

- The teacher can use a concordancer to find examples of authentic usage to demonstrate a point of grammar, typical collocations, etc.
- The teacher can generate exercises based on examples drawn from a variety of corpora.
- Students can work out rules of grammar and usage for themselves by searching for key words in context.
- Students are encouraged to be sceptical about explicit rules by drawing on the data provided by authentic texts.

Using a concordancer, teachers can quickly produce handouts and exercises based on authentic materials but, more importantly, a concordancer turns the student into a researcher who can establish rules of grammar and usage for him/herself. In other words, concordancers have a key role to play in autonomous learning. It is in the EFL world that concordancers have made their biggest impact, but it is clear from visits to the ICT4LT site that MFL teachers are also beginning to see their value.

A hybrid approach to online language learning

Felix (2001) is enthusiastic about the usefulness of the Web in language learning and teaching, but she is also realistic and does not hesitate to mention its shortcomings compared to other delivery media, e.g. the problems associated with bandwidth and plug-ins, and the lack of universal standards for accessing the Web. CD-ROMs are still more reliable for delivering graphics, sound and video. This is why the designer of online language learning materials is advised to adopt

… hybrid approaches designed to avoid potential technical problems, such as downloading activities from the Web on to a self-contained Intranet, integrating CD-ROMs and the Web, or running audio conferencing or videoconferencing with Web activities. (Felix 2001:190)

Do-it-yourself CALL?

Module 2.5, which deals with authoring programs, has slipped down the list to position No. 13. This is the lowest position of the three modules that provide information for teachers interested in authoring their own materials. The other two modules in this category - 3.3 (Creating a WWW site) and 3.2 (CALL software design and implementation) - have dropped respectively to positions No. 8 and No. 9.

Why has the do-it-yourself approach to CALL declined in popularity? Perhaps I was right when I made the following statement in an article written five years ago:

The do-it-yourself approach to CALL software creation has rarely worked. Only those with hours of dedication at their disposal have made a success of it. The past is littered with dead authoring packages. (Davies 1997:41)

It's a question of time - which most language teachers do not have. Teachers are mainly interested in buying off-the-shelf materials or a simple authoring tool, e.g. Camsoft's Fun with Texts or Wida Software's Storyboard, which generate a lot of work for the student with the minimum effort on the part of the teacher. Both of these packages continue to be bestsellers. It is significant that Module 3.3, Creating a WWW site, occupies the highest position of the do-it-yourself modules. This may be due to the availability of easy-to-use HTML authoring tools such as Front Page and Dreamweaver, and exercise generators such as Hot Potatoes. Or perhaps it has more to do with the Web as a convenient delivery medium - or an Intranet, which is becoming more common in educational institutions.

Integrating CALL

Module 2.1 of ICT4LT is concerned with CALL methodology and ways of integrating CALL into study programmes. One would have expected this module to be a popular choice. Curiously, however, it has remained consistently the second

least popular module for a period of many months. The module addresses both learners' and teachers' needs, but for some reason or other this does not have much appeal. Could it be that teachers are not interested in integration and that they would rather let the computer do all the work?

Managing a multimedia language centre

Module 3.1, Managing a multimedia language centre, was conceived as a module for the advanced trainee. Its popularity at position No. 3 seems to indicate that everyone wants to manage a multimedia centre rather than teach! The module contains a number of case studies, which probably accounts for its appeal, and there is a strong emphasis on management of the learning environment, especially ways of encouraging learner autonomy.

ICT4LT: the future

At present access to the ICT4LT website is free of charge. For the time being the site will consist of a bank of materials that can be accessed and downloaded. There will be no online tuition, but visitors may continue to address questions to the management team and to members of the discussion list.

A final message to educational administrators

- Computers offer a wealth of learning opportunities to language learners.
- Computers don't work without software.
- Computers are tools for teachers - not replacements.
- Training staff to use computers takes time and costs lot of money - but it's worth it in the end!

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"…online learning environments have challenged traditional approaches to teaching. The development of new methodologies, risks being technology-led... Reflective and adaptive approaches to teaching and learning will continue to be required to carefully integrate and counterbalance virtual with social learning…"

Communities and Contexts of E-learning in a Global Age: A Plurilingual Perspective

Gabrielle Hogan-Brun, University of Bristol

(Adapted from a keynote speech presented at EUROCALL 2001, Nijmegen)

The emergence of the information era with its rapidly and continuously expanding communication technology seems to have propelled the industrial society into a virtual community within a global village, transforming economies worldwide, the media and education. The ensuing social change is characterised by an exponential growth in the instant availability of information across all time zones. As a result, our relationship with knowledge and our approach to learning, not only in science and technology, but also in the arts, has been profoundly transformed. At the press of a button we can become witnesses of other cultures and their languages through satellite TV, and ever increasing amounts of materials in many languages are available to us a mouse click away. Such developments are poised to make a great impact on language learning across all sectors of education to cater for ever growing language needs within an increasingly mobile society.

The pedagogical context

Foreign language teaching methodology has been linked to the effects of a 'variety of social phenomena' which, along with their changing economic and political imperatives, can become a 'powerful catalyst for growth and change' in this field (Carter: forthcoming). This top-down movement depicts a

teaching methodology whose purpose it is to 'provide solutions for problems which originate outside the language classroom' (ibid.).Thus the rapid adoption of the internet in society at large is affecting the nature of teaching and learning, providing more open learning environments.

New Media

The new media have duly been embraced for the creation of many innovative programs, either as product applications (e.g. CD-Roms or videos) or more open process ones (involving, e.g. TV or the internet; U. Jung 1999a: 21). Their use has been advocated as a means to:

- enhance motivation through multi-dimensional
- authenticity and up-to-dateness;
- improve the effectiveness of learning;
- cater for differences in learning;
- accelerate the learning process.

The effects of product media on language learning have been exhaustively surveyed and analysed (Montero-Fleta 1997; Hogan-Brun & Whittle 1998; Kenning 1999; see also Laurillard 1993). On an institution-wide level, where learning effectiveness has to be counter-balanced by cost effectiveness and efficiency (Kenning 1999: 1), the web has become an ever more powerful learning resource . Its advantages, according to WELL, are:

- vast scale - users + information + tools
- authentic language
- user/learner-centredness
- multimedia
- interactivity

However, crude search tools, the relative instability of this medium as well as the real danger of telematics generally to pave the way for a 'commoditization' of education (ibid.) call for some caution and careful planning of appropriate learning tasks in the use of the web as a learning environment.

Teaching and learning implications

In a learning environment where teaching is to be supported not replaced by IT, one of the main challenges is to 'devise learning tasks which treat technology as an integral part of an activity' (Kohn 1994: 37). Such tasks should treat on-line work as an extension rather than the main focus of classroom work and have to be selected to demand an 'appropriate level of cognitive (and linguistic) effort' (Kenning 1999: 3).

'Classrooms without walls and borders'

Given appropriate support, evolving IT-enhanced learning modes have the potential to enrich the learning experience considerably in 'classrooms without walls and borders' (Carter: forthcoming), allowing for:

- **Cultural immersion**:
  With its multidimensional authenticity, multimedia can offer an intensive and contextual learning environment, mirroring real life situations.
  One such example is the interactive delivery and use of news in German on the TV website www.tagesthemen.de/, with features which facilitate comprehension in a way daily newspapers and videorecordings could not do.

- **Communicative settings**:
  Communication with native speakers in the target language becomes a reality through online arrangements such as the International Tandem Network www.slf.ruhr-uni-bochum.de/email/idxeng00.html where foreign language skills can be used outside the classroom in a truly communicative act.

- **Situative learning:**
  Facilities such as e.g. specialist discussion groups can provide students with an opportunity to practise their target language by carrying out authentic tasks which are of use to them in their own (professional) lives. An example is www.medizin forum.de/php/frameset.php3?menue=Foren (appendix), where medical students can deal with (patient) queries and act as medical advisers.

  In such contexts, students engage with others on subject matters which they consider inherently interesting and where language learning is to a considerable extent 'incidental to practical use of the target language in a truly communicative setting' (Klapper 1996:1). Without loosing sight of the goal of mastering the traditional aspects of foreign language proficiency they must place language learning into a ' larger context...and explore other aspects related to international discourse and human interaction' (Froehlich 1999: 151).

Learner needs

It has been shown that, regarding the use of the web, students tend to value relevance and an opportunity to engage in activities related to their goals and personal needs as ultimately more powerful dimensions (Hogan-Brun & Laux 2001: 259). What makes net use attractive in the context of learning seems to be needs-driven aspects such as (in descending order):

- local accessibility of internationally available material in the target language;
- authenticity and up-to-dateness of sources - in the specialised context too;
- combination of text, pictures, graphics and audio text;
- relative ease and speed of information retrieval.

As learners are increasingly expected to assume responsibility for their own learning, a methodological approach is needed that makes them aware of changing learning processes and to provide scaffolding (ibid.: 261).

Supporting the learner

Thus, whilst web-enhanced language work can constitute an overall positive experience for students, the supportive role of the trainer remains indispensible to help learners develop appropriate strategies to search for and deal with the wealth of retrievable information. Students need to be equipped with appropriate study skills (Hogan-Brun & Whittle 1999: 95; Piper & Wright 1999: 105) and helped to evolve relevant electronic literacy skills (Warschauer 1999). This involves reading (active reading, skimming, scanning) and speaking/writing skills (discussing online, emailing effectively etc.). Psychological aspects require attention too as some students are less predisposed to being able to adjust to language learning in a less 'conventional' context; they may be dependent on an

external locus of control (White 1999: 456) and require support and guidance to be able to function well in an environment of increasing learner-centredness.

Evolving learning dynamics

In an IT-supported learning environment the social interactions between students and their trainer can take on a whole set of new dimensions (Hogan-Brun & Whittle 1998: 455), enabling students to work independently and authoritatively (Roe 1999) in the target language. Under promotion of suitable learning techniques, such learning environments can become a 'site for experimentation and discovery...where students are introduced to the benefits of working in teams on collaborative projects' (Froehlich 1999: 151).

The following observations can be made about evolving learning dynamics:

- **Learning partnership**
  A learning context where work is done in consultation can result in a changing 'power structure' within a classroom. In this new 'balance of power', both students and tutor become information providers and experts, thus levelling a 'top-bottom' approach.

- **Features of communication**
  An atmosphere where information is being drawn and exchanged from various sources can engender much informal discussion, thus favouring a multi-channel network of interaction with increased individual participation.

- **Learner focus**
  IT-integrated teaching can lead to a more student-centred approach with flexible and open ended learning patterns.

- **Learner attitudes**
  An integrated approach can result in changing learner expectancies (work attitudes, motivation and performance).

The relevance of e-learning

E-learning for languages affects users both in an educational setting (of which there are many examples, some of which can be read in the current publication), and in the wider context - for example, it has been observed that the internet can serve as a medium to revive endangered languages. In addition, numerous sites have been created for their protection, preservation and promotion. One such site is Limba e curtura de sa Sardigna ("Sardinian language and culture" http://www.spinfo.uni-koeln.de/mensch/sardengl.htmln) Such sites have the potential to raise language awareness at grassroots level, which may in turn impact on ecological approaches to language planning.

Virtual methodology

We have seen that online learning environments have challenged traditional approaches to teaching. The development of new methodologies, however, risks being technology-led. It has been argued that, in social studies of science, 'methodology (…) is actually about muddling through' (Hine 2000: 42) . But to what extent can real world methods be applied to the virtual world? Common sense shows that the virtual cannot replace the real. '(…) it is not a matter of substituting. The new technologies tend only rarely to substitute real activities (…). Much more commonly, the virtual ends up sitting alongside the real' (ibid.). Reflective and adaptive approaches to teaching and learning will therefore continue to be required to carefully integrate and counterbalance virtual with social learning.

...and the real learner

Methodologies that arise in a virtual learning environment will always need to take account of student expectations and the reality of the changing nature of learning (Hogan-Brun & Whittle 1990: 90ff). With the spread of the IT-enhanced student-context interface, self-instructed study has increasingly come into prominence. However, the presence of modern day technologies does not necessarily mean that independent learning is going to take place. In fact, we have seen that 'going solo' can present considerable challenges to many learners (see also Hogan-Brun & Laux 2001: 260ff). We must therefore ensure that appropriate methodologies are applied, and provide contexts with a suitable level of cognitive and intellectual input. In order to avoid 'tissue rejection', students too have to be made aware of their changing role in a more dynamic learning context.

To conclude, in the face of ICT's relative immaturity, an informed degree of scepticism is called for to underpin a well-measured approach to teaching and learning. We must maintain a critical distance to make sure that the obvious benefits which we reap in the information era are maximised as new communication and information systems are integrated in a learning context where learning strategies are made apparent form the onset.

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"…in the case of a book, students are likely to view the editor as an expert who controls their reading process, but since the editor of an electronic edition takes a back seat and acts as a prompter rather than a direct guide, they are encouraged to navigate themselves around the text, to select the information according to their own needs and to develop new ways of reading…"

Teaching Students How to Read: The Uses of IT in Studying the Novels of Benito Pérez Galdós

Rhian Davies, University of Sheffield

There is little doubt that the majority of students who come to Sheffield nowadays experience problems when dealing with Spanish literature. In order to overcome these difficulties, we need to ask ourselves why?

The Problems

These problems can be largely attributed to the fact that, when they begin their first year at university, students seem to be conditioned to expect everything to be black and white, right or wrong. Perhaps this is partly due to the structure of some parts of the A level assessment eg. in Unit 2 (Reading and Writing) of the Edexcel exam, students are asked to tick whether statements pertaining to the source text are true/false/or do not appear in the text, and also to fill-in the gaps. In such exercises, the answer is quite simply either correct or incorrect.

Many lecturers, then, are faced with the challenge of encouraging students to recognise that this is not always the case, particularly with regard to literary texts, and endeavour to encourage them to not only put aside the expectation that everything is black and white but to read the text concerned in detail and, from that reading, develop their own interpretations of the work.

However, this is far easier said than done, particularly when there is a notable lack of literary study required to obtain an A level qualification in Spanish. The A level exam board, Edexcel, proposes a special pathway for literary-minded students but this seems to be a half-hearted suggestion and it is unlikely that many A level teachers would opt for it. Moreover, teachers are discouraged from attempting the literary-based 'Topics and Texts' option.

The result is that, this year, out of a group of about sixty first-year Spanish students at Sheffield, only about fifteen were able to report that they had studied Spanish literature at A level.
The majority of our students are not accustomed to reading on a regular basis, let alone to reading literary works. In fact, if students are reading subjects such as Spanish with Business Studies, it is even possible that their first year at university might be the first time in their lives that they are faced with studying a piece of literature. Imagine the enormity of the challenge if students are not only confronted with literature for the first time, but also confronted with a literary text written in Spanish!

Another problem is that the texts the A level exam boards recommend are predominantly contemporary. Apart from Blasco Ibáñez's La barraca (1898), all the texts recommended by AQA are taken from the twentieth century, whilst Edexcel's proposal of Lazarillo de Tormes (taken from the sixteenth century) seems totally out of place and, again, one suspects that a significant minority of students actually study this work. All fifteen of this year's first-year students whom I mentioned previously had solely studied nineteenth-century texts. It is hardly surprising, then, that some of our students have the impression that all literature written before the twentieth century is so distant that it is irrelevant and not worth studying.

The result is that a large number of our students opt for modules based on subjects that are close to the present or that they have probably studied at A level. Last year, out of group of about seventy second-year post-A level students at Sheffield, fifty-five chose to study the module on 'Franco's Spain' and it is possible that one of the reasons that they were attracted to this module was that they had studied the topic at A level.

Given these problems, it would be very easy to criticise A level courses and bemoan declining standards but this will not solve the problems for us or our students. Thus it is worth considering the advantages that are available to us and, in so doing, aim to not only expose students to literature but also teach them how to read and enjoy it.

There are a number of advantages associated with lecturing at a place like Sheffield. Firstly, the majority of students are bright and enthusiastic. As such, we are fortunate to be dealing with young people with potential, who should be sufficiently open-minded to regard literature as a challenge and not something that is irrelevant or uninteresting.

Secondly, it is a well-known fact that today's students are much more electronically minded than ever. The majority have access to a computer and probably have done so for years, and, rather than fearing technology, view it as an exciting prospect. They respond particularly well to visual material and their interest in Spanish cinema is encouraged by the options provided by current A level courses.

Nevertheless, it was, undoubtedly, a somewhat courageous move to introduce as a compulsory text for first-year (post A level) study a nineteenth-century work, Torquemada en la hoguera, which was written in 1889 by Benito Pérez Galdós, since this is a novel which many would regard as a challenging work, requiring an understanding of the historical, ideological, social and cultural background and an appreciation of narrative techniques. However, we hoped to take advantage of the students' potential and their favourable attitude towards IT, coupled with the fact that Galdós's work naturally invites an interdisciplinary response. By incorporating the use of the Galdós Project's electronic edition of Torquemada en la hoguera, which was set up for research-purposes but has also proved to be a useful teaching tool, we aimed to bridge the gap between the nineteenth-century work and today's students and also to facilitate the reading process and encourage students to develop new ways of reading the novels.

Confronting The Problems

One of the main reasons that students are afraid of approaching a text like Torquemada en la hoguera is that they feel overwhelmed and alienated.
The novel is strongly rooted within the nineteenth-century. The novel's setting (Madrid), its language and the references made, would have been perfectly familiar and intelligible to the nineteenth-century reader but the modern reader is likely to feel at odds. Thus the editor is likely to regard the inclusion of maps, information about streets, illustrations, notes, references, explanations and so forth as a necessity to ensure that today's reader will fully understand this background. In a book this information could quickly come to constitute a huge number of footnotes, which would probably take over the page, with the result that students would either disregard them or be overwhelmed and find any creative thoughts stifled.

In an electronic edition, however, this information can be displayed in such a way that it will not interfere with the general readability of the text but serve the purpose of constructing a bridge between the nineteenth-century work and students. Students are encouraged to engage in a process of self-teaching since it is left for them to decide which information they wish to consult. If, for instance, they feel they already know enough about the Revolution of 1868, they will not click on the relevant highlighted text and the appropriate note-box will not be opened on the screen.

We are likely to note students developing new attitudes and taking on new roles. The fact that they are making the crucial decisions can encourage them to proceed further, to look for, and to find, information. In this way the electronic edition serves as a springboard for their studies. In the case of a book, students are likely to view the editor as an expert who controls their reading process, but since the editor of an electronic edition takes a back seat and acts as a prompter rather than a direct guide, they are encouraged to navigate themselves around the text, to select the information according to their own needs and to develop new ways of reading.

Students immensely enjoy this ability to control what they consult and the possibility of skimming the text, not necessarily in a logical order, is something that appeals to them and encourages them to engage in this process of self-teaching. Freedom leads to a sense of ease and enjoyment and is accompanied by self-stimulation and inquiry. The electronic edition of Torquemada en la hoguera provides students with a simple and rapid search facility, enabling them to extract relevant information whenever necessary. They can search for and analyse the use of individual words or phrases within a particular version or all versions of the novel, to search for part of a word, two words, a textual variant, a person, a place, a date or a page number. In this way the opportunity of scholarly research is open to them.

Students are made to recognise the significance of the location of the novel and Galdós's fictional world as a whole through their consultation of the indexes of places and characters. The index of the places is accompanied by visual mapping and photographs of nineteenth-century Madrid to provide the student with not only detailed knowledge of the visual reality of the growing city but also of the implications of particular areas.

The process of linking the individual novel and Galdós's fictional world as a whole is also facilitated through the use of a character index. This index provides students with information on the recurring characters, including brief biographies, relevant notes and links to the text, thus highlighting the contexts in which a particular character appears. This can not only make individual character studies considerably easier but also encourage students to think about Galdós's mode of characterisation, to examine any inconsistencies in presentation and analyse the interaction between the different characters.

The electronic edition can also open students' eyes to the issue of textualisation. Unlike in a book, which tends to present one version of a novel, the electronic edition of Torquemada en la hoguera enables students to access all the early surviving versions of the work, including the draft proofs, the serialised version and the first edition, material which would not normally be made available to them. From this material they must then decide which version will serve as their copy-text. This not only encourages them to reflect on the creative processes at work in Galdós's novels but also invites them to question the notions of authorial control and a definitive 'best' edition of a work. Since

they are given the opportunity to choose their copy-text, they are not bound to choose the last version revised by the author but encouraged to examine the differences between the versions and to ask themselves whether Galdós improved or corrupted his work when revising it. They come to appreciate that Galdós was an experimenter and note that he tried out a variety of styles and different ideas throughout his literary career. At the same time, the fact that they are not compelled to confine their reading to one particular version of a novel, but can alternate between the different versions, promotes the idea that the novels were not static products but complex, dynamic, ever-changing entities. Students are also encouraged to look beyond the work and note the significance of the background to this Torquemada en la hoguera, which was first written for and published for a cultural review, a method of publication which affected the way in which it was written. They are also encouraged to move a step further and consider the possibility that he might have been influenced by external parties, for instance his publisher, friends or the general reading-public.

As in the case of the ancillary notes, students are able to decide what they wish to view on the screen. For instance, they can view the entire page of a transcribed manuscript or solely what the author imagined to be his final version of a page and consider the nature of the variants between the different versions of the text. In this way, they can gain an insight into Galdós's working mind, wonder about the author's intentions and attain a greater understanding of the complexity of the novel. Our first-year students tackled the task of considering why Galdós introduced changes in the first paragraph with enthusiasm and quickly concluded that, in changing 'patíbulo' (gallows, TH1.1) to 'quemadero' (stake), (Voy á contar cómo fué al patíbulo/quemadero el inhumano que tantas vidas infelices consumió en llamas) 'I am going to tell the story of how that man without mercy [...] himself went to the gallows/stake'), Galdós develops a more powerful image of torture (- they were quick to note that, if they had to die, they would rather be hanged than burnt).

Conclusion

When considering curriculum innovation, we are undoubtedly considering not only the needs of the present generation but also those of the future. As I noted previously, today's students are much more favourably disposed towards technology than ever. A large number will have been exposed to IT from a very young age and the age at which they sit in front of a computer is getting increasingly younger.

It is an extreme suggestion but nevertheless a possibility that the only reading students will be prepared to undertake in 15, 20 years time will be via the Web or CD-Roms. Although we might view this prospect with a degree of trepidation, it is, nevertheless, important that we anticipate such possibilities and seek to develop electronic editions that are elaborated in such a way that students do not come to regard reading as a meaningless and passive activity but one that can provide them with the incentive to move away from the concepts of the omniscient editor and the all-knowing, confident author, and, in the case of Galdós, interact with his novel, the real world of the nineteenth century and his fictional world as a whole. These electronic editions encourage students to be active, imaginative and thoughtful readers and compel them to read the novels with a detailed and enhanced awareness of their successive and independent states. In this way, students can discover that reading literature, even at its most basic level, is a much less formidable and a much more meaningful experience.

"…The development of a web version of MedFrench is not simply a conversion of a standalone collection of texts to hypertext markup language, but also an exploration of generic issues relating to literary and linguistic data modeling, student access and interactivity and the pedagogic value of multimedia electronic editions of humanities texts…"

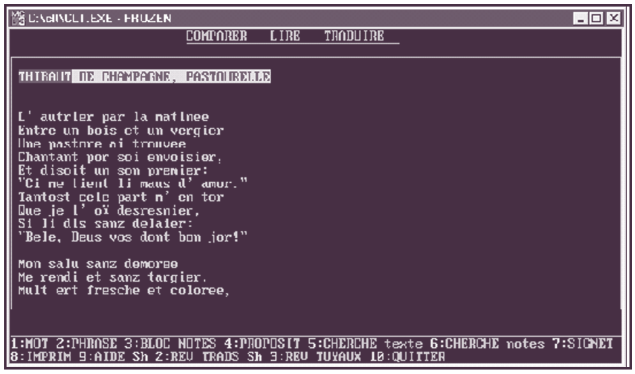
Producing electronic resources for teaching languages and literature

Katherine Fenton (University of Northumbria)

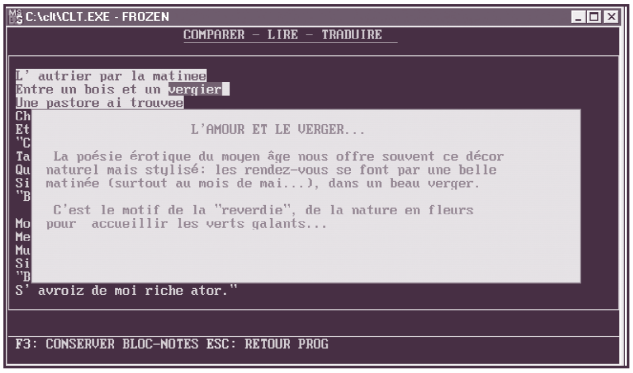
I am not a teacher of literature but I am aware that the study of old texts written in old languages requires easy access to associated materials so that not only can the linguistic issues be addressed but also so that the literary, historic and cultural aspects can be explored.
How can the recent developments in computing in the humanities and electronic publishing be of benefit to the undergraduate who has yet to gain a basic background knowledge of old texts especially texts that present linguistic barriers?

I am going to answer this question by talking about MedFrench, a project which over the last ten years has been affected by both the changes in technology and by the changing needs of students and teachers of literature.

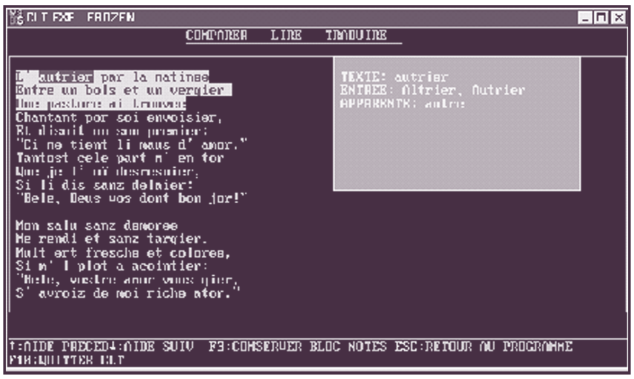
MedFrench is a computer based teaching system produced in 1991 by Brian Levy and Alan Hindley at the University of Hull to deal with an urgent local need to cut student contact hours. Since then it has been widely used in universities in Europe and North America.



Cognate Language Teacher (CLT) which was developed at Queen Mary and Westfield College London to teach one language using another related language, for example, it could be used to teach Catalan with Spanish as the cognate. CLT was used to develop MedFrench which teaches medieval French using modern French as part of the interface. The hyperlinking facilities of CLT were exploited to incorporate not only linguistic and stylistic information but also literary and cultural annotations.



Students were presented with a series of short texts and accompanying notes containing grammatical and commentary type information, lexical information and translations of selected passages. There was detailed sentence structure analysis and a glossary function containing part-of-speech information, root forms and modern French equivalents.



It was designed specifically with the idea of guiding the reader through the materials in a linear way. The student shouldn't have to go through time-consuming processes of "looking things up" that are involved in using printed editions. Instead the annotations of a selected word or phrase were available at the click of a button, or would pop up automatically. Interactivity was also an important aim: the students had a notepad facility so that they could save some of this information and make their own comments about the text.

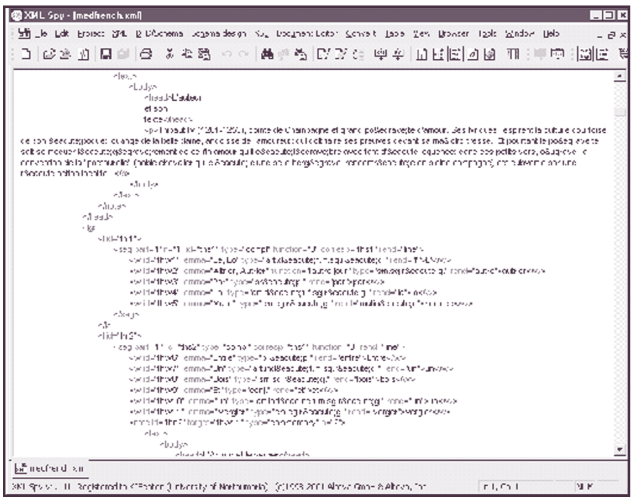
There was a lot of information in the original MedFrench, making a variety of exercises possible for the teacher of medieval French language and literature. Hindley and Levy had five key points of pedagogy in mind when they developed it: firstly they wanted a crash course that would enable their students to gain a rapid yet satisfactory reading competence in Old French; secondly, they wanted something that could both constitute a structured module which could replace formal lectures and yet also something that could be available for later reference and revision. They wanted their students to be able to take notes and discuss the materials online, and they wanted to increase the students' awareness that Old French was not something totally separate and distinct from Modern French. Above all, they wanted to make the study of Old French interesting.

However, MedFrench now appears rather difficult to use. The navigational methods were not intuitive: you had to know obscure key combinations (e.g. shift+F1), you had to move linearly through the text, it was difficult to move back up. It was difficult to redisplay some of the "perles de sagesse" (as the annotations were called): because of the linearity of the navigation system, you saw them once, but you did not not get a chance to have a reread. In a networked version of this program it was difficult for the students to save their notepad comments or print them out. The students who could really benefit from using such a tool were put off by the efforts involved. Also, students are now used to the point-and-click technologies and the easy-on-the-eye fonts of the web browsers; and coloured text on a black or grey background looks a bit dated now. The Cognate Language Teacher system with which MedFrench was created sometimes was restrictive in the type of annotation that it allowed: it was frustrating to the editors who wanted to annotate annotations (such as to discuss an unusual point of syntax) but were unable to work at that level of extensibility.

A program such as this containing highly annotated, highly structured text with a clear pedagogical rationale behind its design, seemed an excellent basis for creating a new teaching application - one which retains not only the richness of the original in terms of content but increases it in terms of multimedia materials and incorporates a more comprehensive range of functionalities than was possible ten years ago. The developments in electronic publishing, corpus linguistics, online learning and internet connectivity have suggested a variety of possible solutions to the problems of translating MedFrench to a web environment.

A pilot web version of MedFrench has been developed which shows what kinds of functionality are possible and how the problems of translating the materials can be overcome by using the latest versions of electronic text production systems. The

earlier DOS version stored the text in some impenetrable encoding scheme which meant that the documents were not exportable into other software systems. In the web prototype, the texts and all the associated information have been marked up in one of the most important text encoding technologies ever to have been developed, eXtensible Markup Language (XML), using tag sets recommended by the Text Encoding Initiative Guidelines.



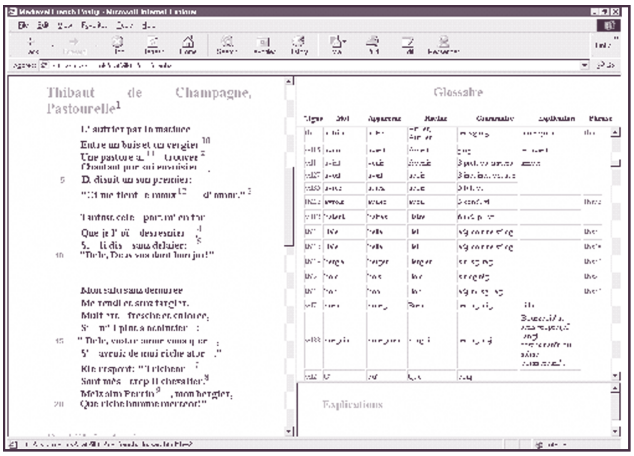
A collection of XSLT stylesheets was developed to extract the data and convert it into various HTML files that offer the user rich possibilities in terms of text retrieval and cross-linking. These style sheets were originally created by Sebastian Rahtz at the University of Oxford and were developed further by Michael Beddow, a freelance consultant then working at the University of Leeds. For the specific purposes of MedFrench, I have developed them still further to achieve some of the functionality that was thought to be lacking in the original DOS version of the program.

Some of the advantages of using XML are essentially that we can encode the base texts at different levels in different ways, for different needs, we can transfer the encoded texts from one hardware or software platform to another without loss or damage to the data, and we can easily transform the XML encoded data into particular formats with specific views of the texts for specific circumstances.

Because the DOS version contains more or less consistent information about every single word in the corpus, we are able to store that information as attribute values to word elements in the XML markup. So every word is marked up with its root form, its modern French equivalent, and its part-of-speech; for example,

<w lemma="Altrier, Autrier" function="autre jour" type="sm.sg.rég."> autrier </w>

With every single word marked up in a consistent way I was able to develop the stylesheets not simply to extract all the information relevant to a particular word, but to build up a glossary of all words and their associated attribute values. In my previous experiences developing concordances, I had learnt how a variety of word indexes can open up to the reader different ways of accessing the text. So the glossary can be reorganised so that the words are displayed in order of the modern French equivalent or in order of the root form. Every single word has been marked up with a unique identifier and this has been carried through to the HTML to provide cross-linking between the main text and the glossary.



Another area of the original program that allows for rich possibilities in terms of XML markup and XSLT manipulation is the storage, retrieval and display of syntactic information. In the DOS version, if you pressed "Shift F", you got a breakdown of that particular phrase's syntactic structure.

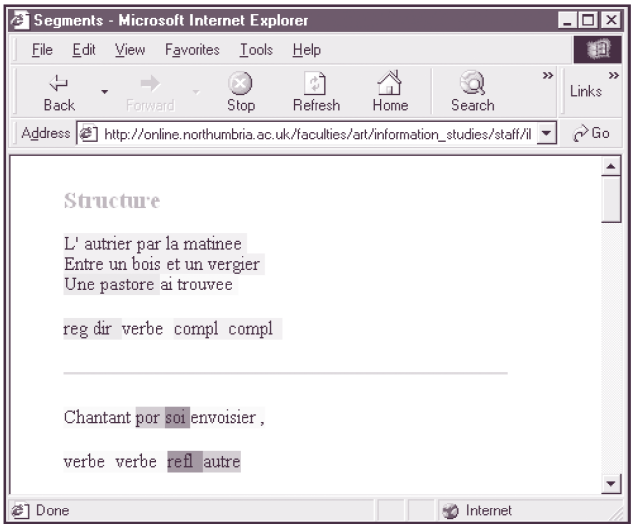
This syntactic information has also been included in the XML version: every syntactic section is marked up as a segment with attributes describing its syntactic type and its relationship to other segments:

<l id="thl3"><seg id="ths3" corresp="ths1" type="reg dir" function="1"><w id="thw12" lemma="Un" type="art.indéf.f.sg.rég.">Une</w> <w id="thw13" lemma="Pastor Pastre" function="bergère" type="sf.sg.rég.">pastore</w></seg><seg id="ths4" type="verbe" corresp="ths1" function="2"><w id="thw14" lemma="Avoir Aveir" function="employé comme vb. aux.:'avoir'" type="1 ind.pr.vt">ai</w><w id="thw15" lemma="Trover" function="Note l'accord au féminin avec le mot-régime précédent." type="pp.f.sg.vt">trouvee</w></seg></l>

In terms of the retrieval and display of this syntactic information, we have reproduced this exactly as it was in the original program, with the same colours and terminology and the same positioning of the syntactic terms.

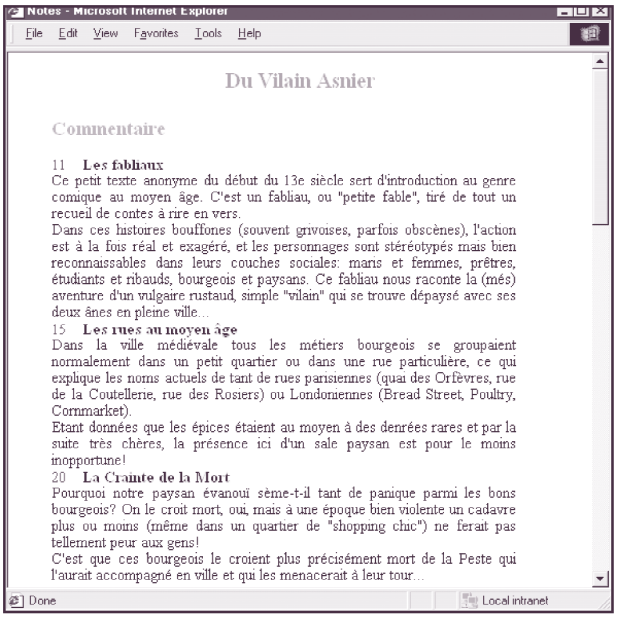
At the moment we are at an early stage and this is still a pilot project so it is interesting to see what problems and possibilities the incorporation of syntactic and part-of-speech information in this way brings. There is a lot of repetition in the markup making the editing process extremely slow. Maybe this can be reduced by having single instances of syntax

information saved externally and then using linking and pointing methods to retrieve it.

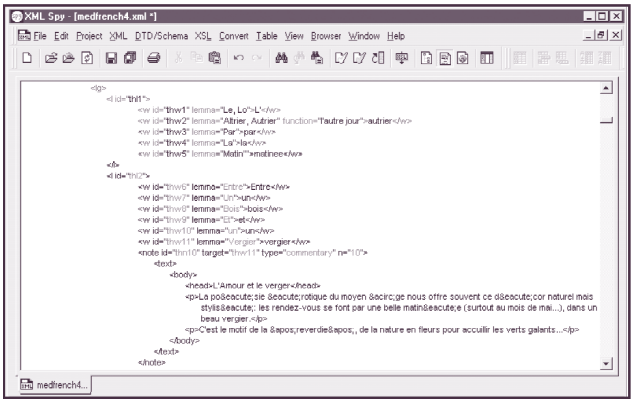


Because we are storing the texts and the associated information in a way that separates structure from display, we can be extremely flexible and experimental in the ways in which we process the materials. For example, instead of the texts being presented in order of difficulty, as they were in the original DOS version, the display could be switched to chronological order, for a more historical approach to the study of the texts. Or the texts could be grouped by genre such as fabliau, romance, chronicle, epic. The associated information could also be made accessible using various querying and hyperlinking mechanisms so that the student is not forced to read the annotations via the text but can travel across the annotations to investigate a particular literary theme, historical detail or linguistic feature.

Future plans include storing the XML files on a web server to allow for on-the-fly server-side conversion from XML to HTML and dynamic linking to internal content and external materials. Also there are possibilities for those interested in researching into, say, particular phrasal structures to have the XML retrieved and converted according to specific parameters provided by the user. A similar approach could be taken with storage of the footnote type information.



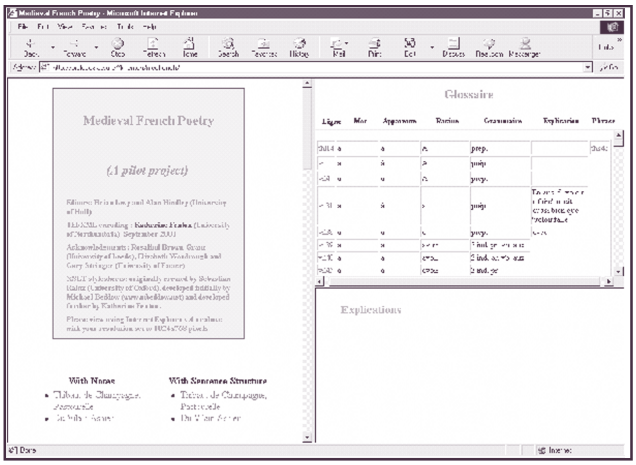
Much of this information could be stored separately for searching and linking to and the relevant chunks only converted to HTML at the user's request. A further plan is to incorporate a greater variety of materials that constitute the annotations for each text such as pictures and sound recordings. With the client-server architecture of the internet and integration with distance learning platforms such as Blackboardä there are also a range of possibilities for student-teacher interaction. One idea is that students themselves should learn about the process of creating electronic editions of the texts. This isn't a new idea: programs such as the Poetry Shell provided a friendly interface and easy-to-learn tools for the students to perform their own linguistic and literary analyses of a text and add their own textual and graphic materials. But this program, based as it was on proprietary software, shielded the students from grappling with some important issues relating to text encoding and the ontology of text. In a later future incarnation of MedFrench, students could study XML and the TEI Guidelines, and then mark up copies of the texts themselves. This might present the student with a difficult learning process but it should also expose the student to textual issues that he or she might never have had to think about before.



The markup of words, phrases, sentences together with cross-references to notes containing more discursive analysis of the underlying themes, can then constitute a sort of electronic version of the classic exercise of commentary or explication de texte, encapsulating the student's understanding at a variety of levels. XSLT stylesheets will be developed which, when applied to all the collected documents marked up by all the students, will extract and display different facts of the encoding of the collection as a whole. For example, you could retrieve all the material that students have identified and marked up as being motifs of courtly love. Or you could compare the way in which different students approach the process of marking up and interpreting the same text.

Our plan for now is to coordinate the general upgrade of MedFrench so that while these encoding, transformation and access systems are developed, the range of texts and supplementary materials is also expanded. However, it is important that the texts can be accessed independently from the system and are not encrypted into a proprietary format as the original MedFrench was. So a further goal is to produce an interactive multimedia teaching system that is generic; that is, one that can be ported to a variety of different academic situations involving other types of texts such as modern literature or historical documents, and texts in other languages. One area that I would like to investigate is the markup of versification of later French poetry to see how aspects of rhyme and metre can be represented in XML and displayed in a

dynamic way. It also offers us an exciting opportunity to explore the possibilities that the new XML-related technologies offer, in particular with regard to the enriched hypertext-linking offered by Xlink.



The development of a web version of MedFrench is therefore, not simply a conversion of a standalone collection of texts to hypertext markup language, but also an exploration of generic issues relating to literary and linguistic data modeling, student access and interactivity and the pedagogic value of multimedia electronic editions of humanities texts.

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"…studies of this kind are needed in order to make the best use of the computer and its specific applications with a clearer knowledge of the kind of interaction learners will be likely to engage in during task completion, and the kind of language outcome to be expected from specific problem-solving tasks….The ultimate goal of the study is to provide theoretical blueprints for the better application of computer technology and materials design within the context of dyadic peer collaboration in the language classroom…"

CALL in the Modern Languages Classroom: The processes of collaborative activity in computer mediated tasks

Adela Gánem Gutiérrez (University of Southampton)

Although computers in the foreign language environment have been present for about four decades, we are just beginning to appreciate and understand some of the implications that the computer embodies, and it is essential that we work towards a serious analysis of potential beyond the realms of novelty and practicality. Collaboration among second language teachers, software designers, and researchers, implies a cyclical process of constant research, design, implementation, and evaluation of CALL materials. This process should have its conceptual roots in sound second language acquisition theories and research, and should eventually also throw light upon those theories in order to gain a deeper understanding of language, its acquisition, and how language learning can be optimised in the classroom.

The present study aims to contribute to a better understanding of computer technology and materials design within the context of dyadic peer collaboration in the modern languages classroom.

My study: The processes of collaborative activity in computer mediated tasks: in search of microgenesis.

At the core of this study lies the necessity to find effective ways in which computers can be used to aid second language learning. A Sociocultural framework provides the theoretical basis to study the computer's potential as a tool of mediation for collaborative work in the language classroom.

Roots and Challenges

My study builds on work carried out in three areas: Second Language Acquisition (SLA) research, task-based learning, and Computer-Assisted Instruction in Education. I will very briefly describe the kind of work that has influenced and helped focus my research paradigm.

In the area of SLA, and seminal to my study is the kind of work developed, on the one hand by Richard Donato (1994), and on the other, by Merrill Swain and Sharon Lapkin (2001). These researchers have studied SLA from a Sociocultural perspective and some of their work addresses specifically the issue of collaborative activity. In a paper entitled "Collective Scaffolding in Language Learning", Donato illustrates the effects of collaborative activity in the co-construction of language knowledge and argues that peer collaboration empowers learners who are, individually,

"novices", to become, collectively, "experts". That is to say, working collaboratively on a problem-solving activity, learners are able to focus on form and co-construct linguistic meaning by building on individual knowledge to achieve, together, language accuracy.

Swain and Lapkin have specifically worked on pedagogical task comparisons to search for language learning instances during task completion. The tasks used for their studies involve collaborative problem-solving, for example 'dictogloss' (text reconstruction) and 'jigsaw' (story construction in a two-way information gap activity). Swain and Lapkin have concentrated on tracing and analysing language learning instances in relation to the differences in task format.

In the area of Computer-Assisted Language Learning (CALL), the work of Carol Chapelle (1997, 1998, 1999, 2001) has been of particular interest to my study. In general terms, her work has urged and inspired CALL researchers and designers to integrate sound SLA theory into their work. Her stance is mainly Interactionist, and from this perspective, she has studied CALL tasks and their role in providing learners with opportunities to notice the characteristics of the target language input; opportunities to produce target language output; and engage in interaction for negotiation of meaning.

Finally, within a general educational perspective, Charles Crook (1994) has advocated the use of computers as tools for mediation in the social context of classroom activity. Collaboration is seen as the means to promote socially-shared cognitive development, and he also emphasises the importance of researching how computer-based tasks might aid such mediated, collaborative activity. The use of the computer as a mediational tool in the language classroom is not only related to language learning and use as the ultimate goal to be achieved; as a complex machine, it requires from the student specific skills to be developed and acquired and, therefore, those new skills have to be taken into account when researching the CALL classroom.

My work builds on the above by concentrating on the relationship among Language Related Episodes (LREs)(Swain and Lapkin, 1995), microgenesis, and dyadic collaboration while carrying out computer-based tasks in the language classroom.

Microgenesis

In the Sociocultural approach to Second Language Learning, "microgenesis" is understood as the observable "…local, contextualized learning process" (Mitchell and Myles, 1998).

I think a Sociocultural perspective allows for deep exploration of the processes that take place during peer collaborative interaction, by analysing learners' linguistic interaction beyond information exchange issues in order to complete a task. Inter-mental activity is about socially enhancing individual knowledge by "borrowing", temporarily, the knowledge of others and building on it to achieve a further stage of development (see Donato, 1994). How, in this social structure, computer-based tasks might provide opportunities for learners to engage in this kind of collaboration is a core issue in the study.

Sociocultural Principles:

1. Learners should engage in problem-solving activities.
2. Activity should comprise goal-oriented actions.
3. Activity has to take place within the ZPD.
4. Scaffolding should be available throughout the different activity stages.
5. Learners need to engage in Inter-mental activity.
6. Inter-mental activity should lead to Intra-mental activity in order for learners to achieve internalisation and automatization of the target language.

The aim of my research is to investigate different computer-based tasks that might be associated with the promotion of collaborative work in the Spanish language classroom, and how collaboration in the completion of these problem-solving tasks might lead to changes in learners' interlanguage. In other words, the purpose of the study is to trace microgenesis in relation to specific task designs in order to establish the relationship between dyadic collaboration during the completion of linguistic problem-solving tasks and second language learning, and the specificity of the computer as a mediating tool.

Methodological considerations

The three questions that provide the foundations for the study are:

1. To what degree do different tasks support collaborative work in the classroom?
2. Are there any observable instances of microgenesis during collaborative task completion? If so,
3. What is the relationship between the instances of microgenesis and the collaborative computer-based tasks?

Specific problems to be investigated within the context of Sociocultural Theory.

Task Qualities	Research Questions	Research Methods
Focus on collaboration	● What evidence suggests that learners are collaborating to complete the task? ● Which task features invite learners to collaborate for its completion?	● Task Analysis ● Qualitative content analysis of discourse produced during task- completion. ● Post-task questionnaires seeking learners' perception of tasks and work with their partners.
Language learning potential	● Are there any instances of microgenesis during task completion? ● What evidence suggests that the learners have internalised the target language forms focused on during the task? ● What evidence suggests that collaboration throughout task completion has aided internalisation?	● Qualitative content analysis of Language Related Episodes. ● Analysis of pre and post language tests. ● Analysis of correlation between LREs, microgenesis, and tests results in relation to target language forms that were the focus of the tasks.
The computer as a mediational tool	● What is the importance of the computer as a mediational tool in the processes of collaborative activity?	● Qualitative content analysis of discourse produced during task-completion.

Context and Participants in the Study

The data collection took place during an academic semester in the School of Modern Languages at the University of Southampton. The participants were 28 university students of Spanish as a Foreign Language at an Intermediate level of Spanish

Methods and Instrumentation

The Tasks

The main instrument for data collection in the study is the "task" which, for our purposes will be defined as:

…a focused, well-defined activity, relatable to pedagogic decision making [and learning processes], which requires learners to use language, with emphasis on meaning, to attain an objective, and which elicits data which may be the basis for research. (Bygate, Skehan and Swain, 2001) (My parenthesis).

Observation and analysis of the nuances arising from and within students' interaction at the computer are of foremost importance in our study in order to establish correlations between task types and their characteristics, and learners' roles, for instance. Is there an "expert" and a "novice" in the dyad or do they both, as a dyad, become an "expert" (see Donato, 1994); and what role do they adopt in relation to the computer, do they see the machine as the "expert", do these roles change throughout task development, and if so, what could role shifts be attributed to. To what extent do the data collected enlighten us in relation to the role of the computer as a mediating tool within the processes of inter-mental activity, and the role of mediated interaction in language learning processes. Pursuing answers to these kind of questions by studying students while they are working together at the computer will help us gain a better understanding of the learning process and the role of the computer in collaborative activity.

Final remarks and expected contributions

Going back to our foundation questions in relation to the methodological framework proposed it is possible to see that the data analysis is expected to throw light upon the two main foci in the study. On the one hand, the Task Analyses, which comprise qualitative content analysis of discourse, and task analysis in terms of design and specific task features will allow for data analysis in terms of evidence of collaboration. This kind of analysis will also lead to establish a correlation between instances of collaboration and specific task features. On the other hand, the qualitative analysis of Language Related Episodes to search for evidence of microgenesis will be looked at against the pre and post language tests in relation to microgenesis to obtain information about the process of internalisation.

From a Sociocultural approach to language learning, this information is needed to assess the benefits and contributions of inter-mental collaboration as an enabling mechanism in the process of language learning. It is also necessary to identify the degree to which computer-based tasks and task features mediate and facilitate both collaborative work and the production of LREs that might lead to microgenesis.

Finally, studies of this kind are needed in order to make the best use of the computer and its specific applications with a clearer knowledge of the kind of interaction learners will be likely to engage in during task completion, and the kind of language outcome to be expected from specific problem-solving tasks.

The ultimate goal of the study is to provide theoretical blueprints for the better application of computer technology and materials design within the context of dyadic peer collaboration in the language classroom. This research will, hopefully, contribute pertinent information for:

a) materials designers to produce computer software aimed at facilitating collaborative interaction;

b) SLA researchers to evaluate the information presented throughout the study and set patterns for future research; and

c) Language teachers to be able to make informed decisions when selecting computer-based materials for collaborative language work.

The tasks as a tool for data collection

Task	Goals	Expected Intermental Activity
1. Profesionales de hoy. Interview reconstruction.	To practise personal pronouns. To discuss and express their views on the task topics. To create a document in order to synthesise their discussion.	Communication for meaning. Metalinguistic work. Metacognitive activity (e.g. planning)
2. Problem-solving task: variation on a trail quiz. To solve a problem.	To solve a problem. To practise personal pronouns, and the infinitive.	Metacogntive talk leading to the solution of the problem (e.g. planning, and negotiation) Metalinguistic talk.
3. La Ciudad de México: Text reconstruction, a variation on Dictogloss	To work on "Ser" y "Estar" by reconstructing a text in which these verbs are essential. To create a document that will reflect their personal perceptions about the city of London. To negotiate the kind of information to be included in their text.	Metacognitive talk: planning how to tackle the task. Metalinguistic talk. Communication for meaning.

Note: the tasks were implemented using the authoring program HotPotatoes.

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"…For teachers, using computers in teaching offers several advantages. Visual and sound presentations in lectures can be improved. More class time can be spent on difficult or interesting issues, and less on repetitive drill. Complex data, large corpora, and sophisticated analytical techniques can be introduced earlier or more easily than with traditional methods…"

Computers in Linguistics

Henry Rogers (University of Toronto)

For the last few centuries, printed books and blackboards have been the most important tool in a teacher's repertoire. For the past two decades, computers have become commonplace in many parts of our lives. The technological side of our lives has been changing so fast that the role of computers in linguistics is difficult to predict. Who would have foretold only 30 years ago the enormous change in personal communication and sharing of information that the internet would bring.

In many cases, linguistics is no different from other disciplines in using computers. Most instructors today use computers for word processing and keeping mark records. The more adventurous may prepare PowerPoint presentations or digitise text using an optical character recognition program. But it is only in a few areas of linguistics, such as phonetics, statistical analysis, and field methods that specialised programs are commonly used. Databases of material can be easily shared.

Phonetics and statistics are unthinkable today without the computational tools now available. A variety of acoustical analysis and synthesis programs are available; some more powerful and better suited for research, others more basic and appropriate for teaching. What has not appeared to any degree are "cook books" which would introduce the novice to a variety of reliable analytic techniques. The fields of phonetics, sociolinguistics, and psycholinguistics often rely on statistical analysis of data. Without computers, this sort of analysis would be impossible.

Although some linguists still rely on 'classic' techniques of data analysis -- pencil and file card -- increasingly, linguistic field work has been moving towards greater use of computers. Data storage, manipulation, and analysis are facilitated by computers. Concordance programs are quite useful. A computerised database can also be more easily shared with colleagues. With acoustic analysis more easily done on the computer, we are now seeing an increased examination of phonetic problems as part of basic field data analysis.

For general theoretical research, computers have not yet played a significant role for most of linguistics, except as text editors. Clearly some disciplines use computer modelling of theories to great advantage: the computer is programmed to produce the same results as those which the theory predicts, given the same input. In linguistics, we have seen rather little of this. Quite likely, the effort of creating a computer model outweighs the advantage. The rapidly changing nature of linguistic theory is also likely a factor. However, optimality theory has used programs to evaluate alternative solutions.

One pressing need at the moment is to find a standardized way to transmit text containing phonetic symbols reliably. Undoubtedly, the UNICODE standard will ultimately provide a solution, but for now, internet messages frequently use work-arounds such as E for epsilon, etc. Documents can be e-mailed, but symbols go awry unless both ends have the same computer font.

Apart from research, computers have also affected instruction. They have added new techniques to a linguist's pedagogical repertoire. Computers can be used to help instructors in presenting new information and to help students in practising new techniques. They can allow students to combine and examine more information in a greater variety of ways and in less time than was previously feasible.

For teachers, using computers in teaching offers several advantages. Visual and sound presentations in lectures can be improved. More class time can be spent on difficult or interesting issues, and less on repetitive drill. Complex data, large corpora, and sophisticated analytical techniques can be introduced earlier or more easily than with traditional methods.

Computers can be quite useful in teaching specific skills. I have used a program Phthong for years to teach phonemic transcription. A side benefit is that by assigning this work on the web, time is freed up tutorial hours for other work. More complete courses on the computer, such as 'Computerised Introduction to Linguistics', have been less popular, likely because of their inherent lack of flexibility. Theories change, instructors change, instructors change their minds and their approach.

From the students' point of view, computers allow them to work at their own pace receiving immediate feedback without academic penalty- in short, they can 'play' with the data. For some students, using a computer means that they can master the basics, rather than merely survive the course. In other cases, students are able to make a better analysis of a problem than they could have done using traditional methods.
Most students find educational programs on the computer enjoyable, even if they are not previously familiar with computers.

First-year students arrive at university expecting to do all their research on the web, sometimes considering libraries to be distinctly passé. With printed material, we warn our students not to believe everything they read; with material on the web, the problem of evaluating sources is much greater. At the same time, access to information via the web can be much more fruitful than by traditional methods. For graduate supervision, the involvement of external scholars is greatly facilitated.

Long-term predictions about how computers will change our lives are unreliable. We are still waiting for the paperless office. Predicting how computers will affect research and teaching is no easier. The investigation and presentation of information will remain as much of a skilled craft - or art form, if you prefer - as it is today with books. We should not yet throw out our scratchpads, pencils, blackboards, and textbooks.

For more information, readers may wish to consult:
Lawler, John and Helen Aristar Dry, eds. 1998 Using Computers in Linguistics: A Practical Guide. New York: Routledge.
or the accompanying web site:
www.routledge.com/linguistics/using-comp.html

"…the increasing use of CAA for online testing in educational, commercial, and even military sectors, driven by pedagogical, logistical, and economic factors, is providing a strong impetus towards re-use of tests and interoperability…to allow teachers and other users to create online tests which can be taken by students using web browsers, without the need for proprietary software…."

Workshop: Assessment Tools and Interoperability

Tuesday 19th March 2002, University of Hull

Workshop report by Fred Riley

As e-learning proliferates, the use of CAA (Computer-assisted assessment) increasingly relies on third-party, question-and-test items which are useful only if they can be re-used, edited and delivered on different CAA systems and platforms. In this workshop the participants learnt about current CAA solutions from commercial vendors and research projects. The workshop covered the IMS Question and Test Interoperability (QTI) Specification, which is being developed by an international consortium aiming to provide a consensus for representing and implementing CAA.

Organisers

The event was organised and run jointly with the LTSN Subject Centre for Physical Sciences (dbweb.liv.ac.uk/ltsnpsc/), the headquarters of which is at the University of Hull in the same building as the C&IT Centre, and whose staff - in particular Tina Overton and Jean Quantrill - provided significant and invaluable logistical support to the C&IT Centre in the organisation of the event.

Presenters

The main presenters at the workshop were Niall Sclater and Boon Low, of the CETIS (Centre for Educational Technology Interoperability Standards) Assessment Special Interest Group (www.cetis.ac.uk/assessment/). Niall Sclater led the SHEFC-funded Scottish Computer Assisted Assessment Network between 1999 and 2001 and is currently managing the SIG. He sits on the IMS QTI Working Group and is a member of the panel drafting BS7988, "Using information technology in delivering assessment". Boon Low is coordinating the SIG and is currently involved in the research and development of IMS QTI Specification at the University of Strathclyde. Both Niall and Boon work in the Learning Services Department (www.learningservices.strath.ac.uk) at the University of Strathclyde, Glasgow.

The two other presenters were Che Osborne and Graham Smith. Che is a salesperson for Question Mark UK (www.questionmark.com/uk/), long-established developers of test

authoring software. Graham is an IT consultant currently engaged with the University of Leeds.

Audience

The workshop was attended by 49 participants, including the four presenters, of whom 23 were University of Hull staff, 23 were from other UKHE institutions, and 3 from commercial companies. The participants represented a wide range of subject disciplines in UK Higher Education across the sciences, the humanities, and IT.

Sessions

The event kicked off with an introduction to IMS QTI by Niall, in which he described the underlying concepts of CAA and interoperability, and the problem of sharing CAA resources created in various proprietary formats. Tests created in test authoring software, and the test results, are stored in a specific, proprietary format defined by the software developer. This means that only users with that authoring software can view, run, and edit tests created in it, and are unable to share their work with users without the software, or who are using a different test authoring package. However, the increasing use of CAA for online testing in educational, commercial, and even military sectors, driven by pedagogical, logistical, and economic factors, is providing a strong impetus towards re-use of tests and interoperability - small-scale proprietary solutions are not appropriate to large-scale testing over wide areas (e.g. widely-dispersed universities in Scotland). The purpose of QTI is to allow teachers and other users to create online tests which can be taken by students using web browsers, without the need for proprietary software.

Following Niall's comprehensive introduction, his colleague Boon Low demonstrated some practical, live examples of how teachers can re-use content.

The pre-lunch session was rounded off by a presentation and demonstration by Che Osborne. Che spoke of how the company's main product - Perception - is compliant with QTI, and of how QM are actively involved in the development of interoperability standards. He said that, although interoperability could be seen as acting towards reducing QM's user base, the company felt that it was in their and their industry sector's, long-term interest to promote re-use and interoperability.
After lunch, Graham Smith demonstrated his online QTI rendering tool. The tool is currently under test and not publicly available, but he has used it to create online test examples in a range of test formats and subjects, and these he demonstrated to the audience.

Following Graham's talk, there was a long question and answer session in which the audience quizzed the four presenters, with most of the questions being directed to Che Osborne, there being considerable interest from teachers in the audience as to the practicalities of creating and running online tests. Niall fielded most of the remaining questions, relating to the technicalities of QTI.

CETIS Assessment SIG

The CETIS Assessment Special Interest Group (www.cetis.ac.uk/assessment/) has been set up to monitor CAA-based interoperability initiatives for Further and Higher Education in the UK. The Hull workshop was part of the 'CETIS Assessment Roadshow', intended to raise awareness of CAA and interoperability via events held across the country. The workshop was also given at the Psychology Learning and Teaching conference (PLAT 2002) on 20th March, at the ALT eContent conference on 4th April, and at Oxford Brookes University on 1st May.

Further information and links

A shortened version of this report is on the Subject Centre website at http://www.lang.ltsn.ac.uk/events/reports/caa_wkshop.html. From this page you can download Niall's presentation, and the useful "IMS Question and Test Interoperability: An Idiot's Guide" written by Niall and Boon. The page also has links to CAA, QTI, and XML resources, for those wishing to delve further into these subjects.