

# ICT AND MODERN FOREIGN LANGUAGES: LEARNING OPPORTUNITIES AND TRAINING NEEDS

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## LESSONS FROM THE PAST

Language teachers have been using technological aids since the early 20th century. Looking back at my own experiences both as a learner and as a teacher, I recall having been exposed to or having used all of the following technological aids - more or less in chronological order - dating back to the 1950s:

radio broadcasts	computer
movie projector	audio
record player	CDs
slide/filmstrip projector	satellite television
tape recorder	videodisc player
television	CD-ROMs
overhead projector	the Internet
tape recorder	DVD-ROMs
language lab	DVD-Video player
videocassette recorder	interactive whiteboard

ut of this bewildering array of gadgets there is only one that I would consider as having made a significant impact on my life as a language learner and teacher: the tape recorder. I recall my French teacher bringing a tape recorder into the classroom in the 1950s and playing a recording of a speech by Charles De Gaulle concerning the crisis in Algeria. It was a revelation to me, as it was the first time that I had heard a speech by a real French politician. I immediately decided to acquire my own tape recorder, which I used to record radio broadcasts and to make recordings of my own voice in French, German and Russian, with the aim of improving my pronunciation.

A modified version of the tape recorder - the so-called AAC recorder - made it possible for the learner to record his/her own voice on the same tape as the voice of a native speaker model without erasing the original recording. Nowadays it is easier to do this with a multimedia computer. The AAC recorder gave birth to the language lab. The language lab was a remarkable invention but, due to lack of proper training for teachers in using it effectively, it failed to make a significant impact on language teaching and learning in most sectors of education (Davies 1997:28f).

Teachers have been using computers in the MFL classroom for over 20 years. The boom period began in the early 1980s with the advent of the microcomputer, which opened up an exciting new range of learning opportunities. The computer was hailed by enthusiasts as the panacea, but after the initial period of euphoria many teachers became disappointed with what ICT technology could offer. This is a fairly typical sequence of events. Oppenheimer (1997) writes:

In 1922 Thomas Edison predicted that 'the motion picture is destined to revolutionise our educational system and [...] in a few years it will supplant largely, if not entirely, the use of textbooks.' Twenty-three years later, in 1945, William Levenson, the director of the Cleveland public schools' radio station, claimed that 'the time may come when a portable radio receiver will be as common in the classroom as is the blackboard.' Forty years after that the noted psychologist B.F. Skinner, referring to the first days of his 'teaching machines,' in the late 1950s and early 1960s, wrote, 'I was soon saying that, with the help of teaching machines and programmed instruction, students could learn twice as much in the same time and with the same effort as in a standard classroom.' (Oppenheimer 1997:45)

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 (Davies 1997). 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 an adequate 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.

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.

### **LEARNING OPPORTUNITIES OFFERED BY ICT**

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 often have a blinkered view of computer technology, perceiving it as a way of automating the learning process and saving money on staffing.

When computers first appeared, a fully automated programmed-learning approach was in vogue. It derived to a large extent from the dreaded three-phase language lab drills:

1. Stimulus
2. Response
3. Feedback

The main difference between early computer programs and language lab drills was that *response analysis* and *branching* were introduced into the above sequence, thus making it possible for interaction to take place between the learner and machine without the intervention of the teacher. The novelty value of the interaction soon wore off, however, and software designers began to look around for more interesting ways of using the computer. 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.

But new ideas were forthcoming. Seminal works by Davies & Higgins (1982 & 1985), Higgins & Johns (1986), Jones & Fortescue (1987), Hardisty & Windeatt (1989) listed a growing variety of computer assisted language learning (CALL) programs. Computers could do more than offer automated gap filling and multiple-choices exercises. The following list - dating back to the 1980s - is by no means exhaustive: -

- Re-ordering 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 that I describe above. 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)

### **THREE PHASES OF CALL**

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 iii (b). 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**

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. Some interesting interactive videodisc products emerged: *Montevideo* (Schneider & Bennion 1984), *Expodisc* (Davies 1991), *A la rencontre de Philippe* (Fuerstenberg 1993). All of these fall into the category of *simulations*. Interactive videodiscs 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 - LPI's *Oscar Lake* series being a notable exception. 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. Popular programs such as Syracuse's *TriplePlay Plus* (now known as *Smart Start*) and Auralog's *Tell Me More Pro* have brought speech technology to the masses.

### **THE INTERNET**

There is no doubt that the Internet - especially the World Wide Web, which is a sub-set of the Internet - has made an enormous impact on many people's lives. The Web dates back to 1989, but it did not become public until 1993 (Berners-Lee 1998). When the first Web browser was released 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. 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.

The Web has initiated a veritable revolution in education, especially in the areas of open and distance learning, and the so-called New Learning Environment (NLE). NLE has become closely associated with the Web. I say "associated with" because NLE is a difficult term to define precisely. NLE's characteristics include openness and flexibility in terms of time, place, method and right to study. It embraces a vision of learning that encourages learner independence, with the teacher becoming more of a facilitator than instructor. NLE features prominently in open and distance learning programmes of study and encourages electronic communication between teacher and learners and between learners as a peer group. Originally, NLE was associated with the use of a wide range of technologies and their applications to learning. In recent years, however, the focus of NLE appears to have shifted almost exclusively on to the Web as the delivery medium. My personal view is that this focus is far too narrow, as it overlooks the benefits of other tried and tested technologies. Yet educational institutions are rushing headlong into putting all their open and distance learning materials on the Web, in spite of the fact that there are many aspects of CALL that cannot (yet) be executed properly in this environment. CD-ROMs and DVDs - and even the interactive video-discs of the 1980s - are far superior at handling sound and video, for example, which is why a hybrid approach is necessary. Furthermore, there is a danger that the crucial role of the language teacher in a face-to-face teaching environment will be forgotten.

The Web is undoubtedly a remarkable invention. Thanks to the Web I am now able to carry out research that would not have been possible in pre-Web times. But there is, as Claire Bradin puts it, a "Dark Side of the Web" (Bradin 1997). In spite of this negative sounding title, Bradin presents a realistic and balanced view of the pros and cons of the Web in language learning and teaching. 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)

Critics of the Web lament the disappearance of traditional educational environments, citing the dubious ethics of those who wish to turn our universities into "Digital Diploma Mills" - the title of a five-part series of articles by David Noble (Noble 1997-2001):

In his classic 1959 study of diploma mills for the American Council on Education, Robert Reid described the typical diploma mill as having the following characteristics: "no classrooms," "faculties are often untrained or non-existent," and "the officers are unethical self-seekers whose qualifications are no better than their offerings." It is an apt description of the digital diploma mills now in the making. Quality higher education will not disappear entirely, but it will soon become the exclusive preserve of the privileged, available only to children of the rich and the powerful. For the rest of us a dismal new era of higher education has dawned. In ten years, we will look upon the wired remains of our once great democratic higher education system and wonder how we let it happen. That is, unless we decide now not to let it happen. (Noble: op. cit. Part I)

Other critics include Press & Washburn. The preamble to their article entitled "Digital Diplomas" says it all: Welcome to the brave new world of higher education, where professors are "content experts", classes are "courseware", and students are customers. But just what is a dot-com degree worth?" (Press & Washburn 2001) Harsh words, but the above authors make some very important points that should not be overlooked in these times of technohype. The Web certainly has its "Dark Side", and evidence is already emerging from North America that online learning may go the same way as some of the early Web businesses that have crashed so spectacularly.

There is no question that the Web is impressive as a collection of reference materials and as a delivery medium. 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 electronic 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.

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. As I have already indicated, training teachers to make good use of technology is essential. One of the most extensive projects ever undertaken in the UK in the provision of in-service ICT training for teachers is the New Opportunities Fund (NOF) initiative. The NOF initiative was allocated £230 million pounds of National Lottery money, with a nominal sum of £450 available for training each full-time teacher in the state primary and secondary school sectors across all subject areas. The NOF training programme has been in operation since April 1999 and will come to an end in December 2003. Online training has featured in most of the individual programmes offered by approved training providers: <http://www.tta.gov.uk/teaching/ict>. The NOF initiative has not been entirely successful, however - an issue that I touch on later in this article.

In the second part of this article I focus on the ICT4LT website, as it can serve 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.

### **THE ICT4LT WEBSITE**

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 16 training modules in ICT for language teachers at three different levels in English, Italian, Swedish and Finnish, and it is continually updated.

The original aim of the ICT4LT project was to design a syllabus and to deliver a Web-based training course in ICT for teachers of modern foreign languages (MFL), but as the project progressed it became obvious that turning the materials into a full-blown course and getting the course accredited was much more difficult than anticipated. There were enormous administrative hurdles to overcome, and it was quickly realised that a considerable amount of online tutoring would be necessary - and costly. So at present the ICT4LT materials are mainly used as an online reference library. ICT4LT does, however, form the basis of ICT awareness and training courses delivered in the traditional way in many educational institutions, and also in connection with regular in-service training courses for teachers.

The ICT4LT materials consist of 15 modules at three different levels: **Basic Level modules**

Module 1.1: Introduction to new technologies

Module 1.2: Introduction to computer hardware and software

Module 1.3: Using text tools in the MFL classroom

Module 1.4: Introduction to CALL

Module 1.5: Introduction to the Internet **Intermediate Level modules**

Module 2.1: CALL methodology: integrating CALL into study programs

Module 2.2: Introduction to multimedia CALL

Module 2.3: Exploiting WWW resources on-line and off-line

Module 2.4: Using concordance programs in the MFL classroom

Module 2.5: Introduction to CALL authoring programs **Advanced Level modules**

Module 3.1: Managing a multimedia language centre

Module 3.2: CALL software design and implementation

Module 3.3: Creating a WWW site

Module 3.4: Corpus linguistics

Module 3.5: Human Language Technologies **Additional module**

Module 4.1: Computer Aided Assessment (CAA) and language learning

### **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: At the time of writing (March 2003) the ICT4LT website is receiving around 500-600 hits per day. This is an impressive indication that the site is regarded as a valuable bank of materials. But during the last three months, feedback from visitors to the ICT4LT discussion list has been zero. No one, apart from one member of the ICT4LT project team, contributed a single email to the discussion list, and I have received no more than half a dozen 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.

It is therefore clear that some means must 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 is 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 is, however, revealing: ·

- Most ICT4LT site visits originate in Western Europe. This is to be expected, as the site is the outcome of a project initiated by a European Union partnership.
- Most other visitors come from the three geographical areas of (i) North America, (ii) Central/Eastern Europe and (iii) "wired-up" Asia (Japan, Hong Kong, Taiwan, Singapore, Malaysia and Thailand).
- The next two main areas represented are (a) Australia/New Zealand and (b) Central/South America.
- An insignificant number of visitors come from the most highly populated countries in the rest of the world - which includes Africa, China, the Indian Subcontinent and the Middle East.

These figures come as no surprise. They 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, and (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.

### **Which are the most popular ICT4LT modules?**

Most visitors enter the ICT4LT site via the Index page and the language-specific Homepage. They therefore start with an overview of what the site is all about. They then progress to the Contents page, which contains a list of the 16 ICT4LT modules. At this point the pattern of visits becomes interesting. The information that follows refers only to the English language section of the site.

The Glossary of Terminology and the Resource Centre are visited more often than any of the ICT4LT modules, except Module 2.2, Introduction to multimedia CALL. This underlines the fact that most people treat the Web as a bank of reference material.

Module 2.2, Introduction to multimedia CALL, has consistently been the most visited module since the site was opened. At the other end of the scale Module 2.1, 'CALL methodology: integrating CALL into study programmes', has consistently been at the bottom of the list. The introductory modules and Module 3.1, Managing a multimedia language centre, are visited with a high degree of frequency, while the other Level 3 modules are less popular - as one would expect as they are academically more demanding. The remaining modules have undergone several changes of position over the last 12 months.

A number of conclusions can be drawn from the pattern of visits to the ICT4LT site:

1. The popularity of Module 2.2, Introduction to multimedia CALL, seems to indicate that an important gap is being filled. ICT training courses, particularly the generic courses that have been offered under

the recent NOF programme, rarely touch on multimedia - a serious omission for language teachers, who need access to technology that offers at the very least what the humble tape recorder offered in the 1950s. But I am still regularly invited by schools to run workshops for language teachers in computer labs that lack soundcards, headphones and microphones. In other words, such labs are simply not capable of delivering multimedia.

2. It is not known why Module 2.1, CALL methodology: integrating CALL into study programmes, is such an unpopular choice. The module challenges views expressed by sceptics such as Oppenheimer (1997), to whom I refer at the beginning of this article. The author of Module 2.1 encourages the teacher to consider how students react to a piece of software and suggests a range classroom activities that the teacher might introduce in order to enhance the impact of ICT. Module 2.1, in other words, addresses both learners' and teachers' needs. Could it be that teachers are not interested in integration, or does the theoretical-sounding title put them off?
3. The popularity of the introductory modules seems to indicate that there are still large numbers of newcomers to CALL - and probably always will be. It is known that these modules are used by a number of universities and teacher training colleges as the basis of introductory courses in ICT and language learning and teaching.
4. The three modules relating specifically to the Web - namely Module 1.5, Module 2.3 and Module 3.3 - began by occupying a very high position on the popularity list, but they have slipped back over the last 12 months. This may indicate that, following a long period of hype, teachers are now becoming more realistic about the opportunities offered by the Web and treating it simply as another tool: v. Felix (2001) and Felix (2003), two recent works that put the Web in its proper perspective.
5. There is increasing interest in Module 2.4, Using concordance programs in the languages classroom, which has climbed steadily from a very low position and now maintains a high position on the popularity list. Concordancers are not new, of course. The concept goes back hundreds of years, and electronic concordancers have been popular among EFL teachers since the 1980s, thanks largely to the pioneering work carried out by Tim Johns: v. his excellent website at <http://web.bham.ac.uk/johnstf>. There is some evidence that MFL teachers are beginning to make use of concordancers, but they have a long way to go before they catch up with their EFL counterparts.
6. There is a noticeable decline in the popularity of the modules that deal with authoring one's own materials, namely Module 2.5, Module 3.2 and Module 3.3. 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 published six 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 is probably a question of time - which most language teachers do not have. It appears from the high level of visits that the ICT4LT site receives that it is fulfilling a useful purpose. Ad hoc feedback from teachers who have attended my training workshops - which I usually centre on selected ICT4LT modules - has been 100% positive. It has opened the eyes to many language teachers to the opportunities that ICT offers both learner and teacher, and demystified many facets of the technology that they thought would be far more difficult to master.

## CONCLUSIONS

Many MFL teachers appear to be overwhelmed by the development pace of ICT. The "techies" are constantly pushing new equipment and new software before the teachers have learned to cope with what is already available. Consequently, teachers panic and just give up. Most MFL teachers are probably not making effective use of ICT. The time has come to slow down and take stock of what ICT can really achieve, deliver appropriate training and make existing equipment and software work properly before rushing into new purchases.

Training is a key issue, but it has to be handled carefully. The sledgehammer approach does not work: v. the enormous amount of money invested in ICT training for teachers under the NOF programme. The Office for Standards in Education (OFSTED), which has subjected the NOF programme to close scrutiny, has produced two general progress reports since the initiative began. The most alarming finding contained in the second progress report is that, in spite of the substantial investment in NOF training, it has only had a significant impact in a quarter of secondary schools and one third of primary schools (OFSTED 2002:22). This is a failure rate of 75%! The main problem is that the training delivered by most NOF training providers was too generic. Each subject area has to be treated differently - especially MFL: v. Davies (2003).

Training is an ongoing process, requiring regular updates. Online training is playing an increasingly important role, but practical aspects of training can be delivered better in face-to-face workshops. A judicious mix of online and face-to-face training is therefore desirable. Online training works best when there is substantial peer group and tutor support. The technology for delivering online training must be robust, the user interface must be transparent, and hardware must be easily accessible to trainees. Content must be relevant and consist of a mix of theory and practical aspects. Trainees need adequate time to complete assignments set by tutors, and tutors need time to mark them. Distance training is a labour-intensive delivery medium, and this has to be carefully costed.

Above all the needs of the students have to be borne in mind when setting up an online course; it is for their benefit, not for the benefit of educational administrators. Training is not cheap, but it is more expensive in the long term not to invest in training.

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