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The shape of the future: computers and multimedia resources in the teaching of Portuguese as a foreign language and culture

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This paper briefly discusses the role and impact of new technology in foreign language teaching in higher education and the unwillingness and fears of the educational establishment to give this technology the central role it has yet to assume in higher education. The influence of computers in education is already tangible and will undoubtedly change the curricula and approaches to teaching and learning in the near future. From this assumption, we argue that a good strategy to promote the learning of languages with less demand in higher education, such as Portuguese, is to make adequate use of the new technologies. This is in order to ensure a more interactive learning process, to meet students' demands, and to aid students to develop both language and computer skills. That is why we believe it is important to include a review of the multimedia resources in Portuguese, together with a discussion on their pragmatic applications, thus providing an efficient tool for teachers.

1. Introduction

An encounter with a language is also an encounter with the people who speak it, with their geography, culture, mores, beliefs, history and fictions.

“The sea beckons from my language” – said the writer Vergilio Ferreira, evoking the

spread of the Portuguese language from Brazil to India, and from Cape Verde to China, initiated by the Portuguese discoveries in the fifteenth century. The many voices throughout the world that speak Portuguese today are a thriving reflection, and a wonderfully diverse heritage of that adventurous past: 200 million people spread out all over the world, from Por-

tugal and Brazil, to far flung Macao and East Timor, across five African countries: Angola, Mozambique, Guinea-Bissau, Cape Verde and S. Tomé and Príncipe, and throughout the many Portuguese-speaking communities scattered around the world.

In Britain, 22 universities and a number of secondary schools offer Portuguese language teaching, respectful of its heritage as it covers all the different cultures sharing the Portuguese language. Besides Portuguese studies, Brazilian and African Lusophone studies are showing an increasing presence in universities in Britain and elsewhere. The variety and quality of the recently published methods for teaching Portuguese as a foreign language bear witness to this.

The methods for teaching Portuguese as a foreign language, published in Portugal by Lidel, Porto Editora, Asa and Plátano, and in the USA by LinguaText Ltd., emphasise a communicative approach, bringing students into contact with the daily life of the country and a truly living language through vocabulary, expressions and grammar structures, carefully recorded on cassettes that accompany all the methods, using native speakers. As such, these methods provide very good, integrated language learning, i.e. a balanced development of the four skills of reading, writing, speaking and listening as well as a wealth of cultural references, leading to a solid development and command of the Portuguese language and culture. As yet, none of these methods offer computer applications in language teaching.

The stated purpose of this article is not to provide an assessment of a selection of these more traditional methods for teaching Portuguese as a foreign language, but rather to consider ways in which information technology can be applied to foreign language teaching, and to focus on the various computer applications for teaching Portuguese and multimedia resources in Portuguese.

2. Language acquisition and technology

The acquisition of a second language is a uni-

versal reality in education systems all around the world. It has always been a challenging field of research and of great interest to academics worldwide. The application of linguistic, sociological and psychological theory to this field of study since the 1970s, has led to a better understanding of the acquisition process and language learning, adding theoretical frameworks and consequently a new dimension to this area of research. There have been many approaches to and trends in second language teaching in the recent past, from the academic style aimed primarily at the learning of a second language as an academic subject, the social communicative style with the focus on the ability to use a language appropriately rather than on the knowledge of the grammatical rules (Cook 1991), to the communicative approach with the focus on the learner and the awareness of a purpose or function. All these theories have one practical purpose: they serve as a tool for understanding and explaining what may happen and why. This statement gives us an excellent framework for discussing multimedia and language teaching.

These days, the difficulties in dealing with the new media such as computers used for conveying information and knowledge, and their different applications in academia, force us to reconsider the role of the classic parties involved in the teaching-learning process, i.e. the role of the teacher, the role of the student and, closely related to both, the role of the teaching material and strategies of teaching.

The role of the teacher changes with every different approach, from the traditional Latin grammar teacher, to manager or moderator whose main contribution is the creation of a positive learning environment, to being one of the most important input sources of the target language. The second aspect is the role of the student, which also changes with the different theories, from passive learning to being in control of their own learning pace and being the centre of the teaching process. Another aspect is the type of material selected by the teacher to help students acquire the knowledge, communication skills and strategies for using the material. In this process, the traditional role of the teacher is a prominent one, as

(s)he is the active party choosing both the methods and strategies, and the student the passive receptacle and user of the different material.

It is widely agreed nowadays that innovation in language teaching has come through the new technologies. It is also certain that the technology we have now will change the way we teach. If the education system is to take advantage of the new digital technology, it will have to change its attitude of resistance to change and accept the new technology (i.e. computers) and as such, make it a subject in itself and view it as a revolutionary tool that will change the process of teaching and learning. Of as much importance here as the creation of the more traditional teaching material, though still in an embryonic stage, is the making of language teaching applications according to the different users. We would like to emphasise that, firstly, one needs to convey the material in accordance with the media through which it is going to be sent, which differs from the traditional coursebooks. Also needed is the interdisciplinary collaboration of linguists, teachers and programmers, which will undoubtedly help to produce high quality teaching material, which again will lead to better and more efficient computer applications. Indeed, computers are introducing fundamental changes into the teaching and learning processes, the effects of which are yet to be fully taken in.

3. The use of technology for language learning in UK HEIs

There has been an ongoing debate about the use of computers in teaching and learning ever since their introduction in the mid-1960s. This debate has focused on the testing of the cost-effectiveness and the educational validity of Computer Assisted Instruction (CAI) (Hooper 1988: v-43).

The Computers in Teaching Initiative (CTI) Centre for Modern Languages carried out their first survey of the use of computers in UK Higher Education in 1989, followed by a second one in 1992 in which research was

done on the scope of the use of computers in language teaching and the attitudes of teachers towards computers. A more recent survey by the WELL project may be viewed at the project's website.¹

The 1992 questionnaire showed that there had been a definite change in the perceptions of teachers regarding the future of computer based learning. Most now regarded the application of computer skills as a positive feature in their career progression, although at the same time, the need for appropriate training became clear as the vast majority of teachers had taught themselves how to use computers.

The enthusiasm surrounding the new technologies resulted in more than half of the respondents claiming that computer based language learning was being integrated into their syllabuses. (Thompson 1993: 8). However, the degree to which it was integrated was not specified in the survey, nor the pedagogical quality of the applications used. According to the 1992 study, a variety of computer-based applications was being used in teaching:

"CALL packages were the most widely used (203), with word processing (173) and authoring packages (144) coming second and third. Database (60) and CD-ROM (47) also figured, with 23 instances of the use of interactive video, 7 teleconferencing, and 28 using other methods. These included desk top publishing, simulations, speech analysis, electronic mail, packages for the analysis of text corpora, and translation tools developed in-house" (Thompson 1993: 8).

The reasons given by those not using computers in their teaching were: shortage of software and hardware, lack of information about the available software, lack of confidence in the value of computers, departmental and institutional attitudes and dislike of computers. However, the main reason given for not using computers was lack of time of both staff and students.

According to Itizarre, from all research carried out, the foremost reason for not using computers to assist the teaching and learning process, in particular in language departments, was its cost. Language departments have

always lagged behind other teaching disciplines in the use of computers (Itizarre 1992: 281).

In our opinion, the main constraints are organisational and social in nature. The lack of understanding on the part of the teacher of what information technology can do for learning has caused unease and fear, sometimes justifiable. The changes in the perception of the status and role of the teacher, and the belief that the students are more familiar with the new media than most of the teachers, emphasise a conservative view of the value of computers in teaching and learning.

There is no doubt that the introduction of computers and information technology (C&IT) in teaching poses significant challenges to teachers, which to a certain extent has led to anxiety in the teaching establishment and to the threat that computers dehumanise instruction by replacing the teacher and converting learners into machines. However, as stated by Hooper:

“The question was raised whether in the foreseeable future, there might be a major change in education where CAL programs, for the sake of economy, supplant teachers. (...) There was agreement that this would be educationally disastrous and there was also some scepticism that this could be done” (Hooper 1988: v-48).

The problem then is to find equilibrium between traditional classroom teaching and the information revolution that the new technologies imply. We believe information technology can benefit both students and teachers alike, if integrated into the education process, and should not be considered an optional supplement. On the one hand, this means the acceptance by the relevant authorities that the different stages of the creation of computer applications are valid research or teaching activities: from the definitions of the contents to the design of the course and the programs. On the other hand, and more from the students' perspective, computer skills are closer to their own experiences, and thus have the ability to make the learning environment an enjoyable one and more in tune, in two ways, with modern times: firstly, as a young student

in touch with the current technological trends, and secondly, as skills transferable to the work place. Knowing how the new technologies work is an emancipatory factor, as it increases the freedom of the individual in the learning and teaching processes.

That is why we argue that these days the absence of information technology from the classroom is denying learners the opportunity to display their own resources of implicit knowledge. Moreover, it prevents the learners from exercising the kind of conscious control over their learning, which enables them to set their own pace and to see through the subject of study in a systematic way and with a modern approach.

The influence of computers in education is already tangible, and will undoubtedly change the curricula and approaches to teaching and learning in the near future. From this assumption, we argue that a good strategy to promote the learning of languages with less demand in higher education such as Portuguese, is to make adequate use of the new technologies in order to ensure a more interactive learning process, to meet students' demands and to help students to develop both their language and computer skills. This can be achieved not only by using programs for language teaching, but also by using other applications presented on CD-ROM such as encyclopaedias, references to literary movements and authors, the history of different countries or simply an archive of numerous, less-accessible works of reference. All these can become very important tools for teaching and learning, which is highlighted by the variety of media involved: photography, video, sound, text, etc. CD-ROM has proved to be very useful in the classroom as the teacher has easy access to and can use a wide range of media in a practical way when dealing with whatever topic, making his/her performance more interactive and attractive to the students. From the point of view of the self-access student, CD-ROM is an important instrument as it facilitates quick reference to a lot of material related to the particular matter, offering a wide range of search systems. This allows for more individually oriented learning driven by the pace and interest of the student.

The lack of information on existing material for teaching Portuguese language and culture, as well as of a proper discussion about the potentials offered by the new technologies, lead us to believe that it is important to include a review of the multimedia resources in Portuguese together with a discussion about their pragmatic applications.

4. Resources for Portuguese

The provision of multimedia resources for teaching Portuguese as a foreign language is still quite embryonic, though it is showing great potential in future developments. In the United Kingdom, a number of departments including the Department of Portuguese and Brazilian Studies at King's College London, have integrated a Computer Assisted Language Learning program into beginner and intermediate language courses. The software focuses on the teaching of Portuguese grammar, and is aimed in particular at English-speaking students wanting to improve their Portuguese through interactive, autonomous and self-correcting work. The design of the CALL course covers all grammar topics; it provides exercises and grammar notes with examples in English, and gives both students and teachers an accurate evaluation of their achievements. Also at King's College, students of all levels of Portuguese make use of an interactive application to study Portuguese verbs. Equally active and pioneering in this matter is the Department of Spanish and Portuguese at the University of Glasgow, which has designed the first on-line course for Portuguese as a foreign language. This project, with beginners of Portuguese in mind (and hopefully under a permanent construction), offers as its name indicates, "De Tudo um Pouco", and can be accessed through URL: www.arts.gla.ac.uk/PortLang/passvolt.html.

Another possibility from Glasgow University offered on the Web is the "Uns Passos em Volta da Cultura Portuguesa" for study of the Portuguese language and culture can be accessed through www.arts.gla.ac.uk/PortLang/godtup.html

We would also like to draw attention to

several multimedia tools which provide invaluable help to foreign students. Besides the traditional bilingual dictionaries published by Portuguese and British publishers, Porto Editora and Texto Editora offer Portuguese dictionaries on CD-ROM (Windows PC / Mac) including Portuguese-English and English-Portuguese which can be integrated into Word, providing the computer user with a wealth of definitions, examples, idiomatic expressions, regional vocabulary, and an efficient search system. Furthermore, it is important to highlight that the dictionaries by Texto Editora have all the entries read in both languages. Porto Editora offers another worthy tool: *FLIP 97 – Ferramentas para a Língua Portuguesa* (three floppies for Windows PC or Macintosh), including a large spellchecker and thesaurus. Texto Editora offers a spellchecker tool as part of the *Grande Dicionário Universal da Língua Portuguesa*. By integrating those tools in word-processors, they become an invaluable help to those needing to produce translations or essays in the two languages in question. For those interested in the variants of the Portuguese language, such as the creole spoken in Cape Verde, it offers now on CD-ROM access to the *Dicionário de Caboverdiano-Português*, a rigorous work by Nicolas Quint-Abrial.

The new edition of *Prontuário Ortográfico e guia da língua portuguesa* by Editorial Notícias, has been published both in a printed version and on CD-ROM. No doubt this represents a very important tool for learners of Portuguese as it offers explanatory pages of orthography, morphology, syntax, as well as very useful and solidly presented vocabulary lists. The CD-ROM offers very efficient search systems, although it does not contain exercises on the topics presented. There are other programs such as *Fonografe*, by Porto Editora, and *Caça às Letras*, by Lidel, both with a more pragmatic function in mind. *Fonografe* is an interactive multimedia application for the learning of the phonologic and graphemic systems in Portuguese, designed especially for foreign students, and allowing them a more individual learning style. *Caça às Letras* (Lidel 1996) addresses a wider audi-

ence and is also a good interactive tool for learning the Portuguese orthography rules with particular insights into their difficulties. In this area one must mention the CD-ROM *Gramática e Verbos*, by Texto Editora, which besides clear and well set out explanations on the main Portuguese grammatical rules, offers an automatic verb conjugator and a well structured set of information about Portugal. The clear and interactive way in which the information is presented leads us to believe that it is a very helpful material for a thorough study of oral and written Portuguese. As well as for use in the classroom, all these tools are extremely useful for the production of individual work, i.e. for practising particular language skills and for producing essays and translations.

As we argued at the beginning of this paper, an encounter with a language is also an encounter with the people that speak it, their geography, culture, mores, beliefs, history, and fictions. Fortunately, in the area of teaching general culture, literature and history, multimedia resources are plentiful and of great technical and scientific quality. However, we believe that as CD-ROM uses the most varied and interactive ways of presenting information, the search systems cannot form an obstacle for lower-level students; indeed, it can work as a stimulating and helpful method for acquiring reading skills. Used in an appropriate manner in the classroom, or for searching material, CD-ROMs can be of great help to students. A review of the CD-ROMs as proposed by us has as its objective to rectify the lack of systematic information on this subject, which we consider a serious and attractive challenge in the teaching of Portuguese culture.

For teaching and student research in culture: *Diciopédia 99* and *Enciclopédia Universal Multimédia em Língua Portuguesa*, from Porto Editora and Texto Editora respectively, are general reference works. Besides attaining a high level in the presentation of general knowledge through texts, illustrations, videos, photographs, and adjectival and adverbial phrases, in these encyclopaedias particular attention is paid to Portuguese, Portuguese speaking world history, culture and current

affairs. The *Diciopédia 99*, as its name implies, is a very detailed, encyclopaedic dictionary, providing a good selection of information as well as an exciting, comprehensive, and user-friendly search system. However, for more complex research, the *Enciclopédia Universal Multimédia em Língua Portuguesa* has proven more useful as it contains detailed information on the most varied topics, despite its less user-friendly search system.

For teaching and student research in literature: the two Portuguese poets with wide international recognition, Luís de Camões and Fernando Pessoa, are the subjects of three CD-ROMs. The first one, *Fernando Pessoa Multimédia*, is an excellent production from Texto Editora/Casa Fernando Pessoa. This original and well-thought-out CD does full and well-deserved justice to the poet. Through extracts from Pessoa's works, videos, photographs and poems, this multimedia encounter with Pessoa is both unsettling and exciting, presenting the whole labyrinthine complexity of Pessoa's thoughts and expression. The CD contains practically all of Pessoa's works, quotations from Pessoa's scholars, and attractive, interactive games, including a good range of search systems. The artistic side is also present as this CD-ROM incorporates almost all of the paintings and silk-screen prints by a wide range of contemporary artists who all derived inspiration from Pessoa. The CD-ROM by Porto Editora *Fernando Pessoa – Vida e Obra* is of a great visual quality and scientific rigour but its presentation is, without a doubt, more suitable for schools. The third CD-ROM called *Vida e Obra de Luís de Camões*, by Porto Editora, in its new version, offers an interactive study of the biography and complete works of the great epic. The "library of images and sounds" suggests a fascinating travel into the times of Camões, the golden age of XVI century Portugal. Users will also find a critical bibliography, a Camonian dictionary and a series of didactic, interactive games on the life and works of Camões. In relation to the Portuguese classics, Porto Editora recently launched two plays by the *father* of Portuguese theatre, Gil Vicente. *Auto da Índia* and *Auto da Barca do Inferno*

are two of the most important works by him now offered in a very attractive presentation on CD-ROM. Thanks to a user-friendly search device, the user has access to a series of basic historical resources about the time in which Gil Vicente lived and about the plays, performances, images and music.

De Bocage a Antero – Percursos do Romantismo Portugues is the latest production from Porto Editora in the Biblioteca Multimedia series, providing the user with a great deal of information on Romanticism, one of the most significant periods in Portuguese literature. This multimedia application offers general contextualisation of the era with critical texts, and enriched by countless images, integral versions and passages from selected works, discourses on a great number of key texts from the literary period in question, plus a glossary and chronology. In addition, it has a very well organised search system, which allows the user easy and comprehensive research on this particular literary period.

For the study of the most popular Brazilian writer we must mention the excellent CD-ROM by Casa Jorge Amado concerning this excellent twentieth century writer who inserted Brazilian literature into the vast religious mythology and culture of Bahia, the struggles and folklore of the region of Cacao, and the charm and sensuality of its feminine characters.

The Biblioteca Nacional has recently published two CD-ROMs in the Virtual Library of Portuguese Writers series, which offer the user quick, interactive access to the great texts of Portuguese literature. On the CD-ROMs we find bibliographic data, a bibliography, works by various writers as well as easy and advanced search systems. The first CD-ROM looks at texts by Fernão Lopes, Luís de Camões, D. Francisco Manuel de Melo, Cesário Verde and Eca de Queiroz. The second CD-ROM, which really is much more extensive, looks at D. Dinís, Pêro Vaz de Caminha, Gil Vicente, Sá de Miranda, Bernardim Ribeiro, Fernão Mendes Pinto, Garrett, Pessoa, and Vitorino Nemésio, among many others. Unfortunately, the specialist team of the Biblioteca Nacional who produced these CD-ROMs, have integrated the Microsoft Internet

Explorer 4 for the visualization of these CD-ROMs. When we installed the CD-ROMs, and with them the particular program, it simply entered into all the programs which had recently been installed into the computer. We feel that the users should be warned of the possible consequences of installing these CD-ROMs on their computers. In fact, we do not understand the idea behind this policy by the Biblioteca Nacional, since no other CD-ROM on the domestic market has coupled any programs. This situation greatly limits the use of these CD-ROMs, which is a real shame, looking at the importance of their content.

Wordsmiths – Dicionário de Escritores Contemporâneos da Dinamarca, Irlanda e Portugal is an excellent production by the Universidade Aberta/Danks Bibliotheks Center/Dublin Corporation Public Libraries, UNIC. This CD-ROM aims to disseminate the above-mentioned authors internationally and, therefore, the information is available in both Portuguese and English. With a very clear layout and of excellent scientific and aesthetic quality, the Portuguese part of the CD-ROM looks at fifteen contemporary Portuguese writers, giving data on biographies, bibliographies, excerpts from principal works, articles, interviews, photos and videos. The simple and advanced search systems are easy to use and also highlight the index systems by author, title, media, etc. This is highly recommended for the teaching of contemporary Portuguese literature.

Still in the general reference area one must mention *História Universal da Literatura Portuguesa*, by Texto Editora which presents more than 400 authors, almost 3000 works and hundreds of images, spoken texts and video-clips showing interviews with contemporary writers, for instance the recent Nobel Prize, José Saramago. It can be searched by literary period, literary genre, author, or work. The vast majority of texts present interesting hypertext links which allow a more complex search.

For teaching and research in history, Texto Editora has recently published a CD-ROM allowing access to a series of textual and audio-visual materials on the history of Portugal, which is useful in the classroom. The

search systems are also well selected, though not very user-friendly. Despite this, it is important to highlight that this is a work of general reference, directed at a wide and diverse audience, so the information included only aims to meet this general objective.

For interactive study of the Portuguese voyages of the XV–XVI centuries, the CD-ROM *Navegar* is strongly recommended. This CD-ROM narrates all the adventures, obstacles, progress made, the opening of maritime routes and discoveries of civilizations and different cultures. The user can follow the history of six great voyages of Portuguese navigation through maps, animations and documents enriched by illustrations of vessels, nautical instruments, and important hypertext links. Apart from this, the CD-ROM offers a relatively complete chronology of the Portuguese discoveries as well as an extremely interesting glossary, which tells the journey of the Portuguese language through the various ports in which the Portuguese docked.

For the study of the recent history of Portugal the two CD-ROMs concerning the Revolution of April 25th 1974, which ended the dictatorship of Salazar in Portugal and the colonial wars in Africa, and the beginning of democracy, are indispensable. *25 de Abril – Uma Aventura Democrática*, by Centro de Documentação 25 de Abril and *25 de Abril 1974 – Roteiro da Revolução*, by Biblioteca-Museu República e Resistência, are excellent materials which provide a clear and well illustrated historical explanation of the events, presenting an interactive background on the former regime and the reasons for its failure. The section devoted to the Revolution consists of chronological explanations of the events and offers unforgettable images of the celebrations which took place in the streets afterwards, the music and speeches of historical importance, as well as the video interviews of the “Capitães de Abril”. The immediate consequences of the revolution: the decolonisation and the first free elections have been also covered in the documentary. We highly recommend this for the teaching of contemporary Portugal in all areas, not only for dealing with a topic of great importance for understanding

contemporary Portugal, but also for its rigour and thorough presentation.

For courses on Portuguese colonial history in Brazil, from its discovery in 1500 to its independence in 1822, the CD-ROMs *História do Brasil – Do descobrimento à independência*, *História do Brasil – O Império* and *História do Brasil – Do descobrimento aos nossos dias*, are interesting tools for use in the classroom or for research purposes. For the most wonderful and complete journey into the history of Brazil, from prehistoric times up to 1985, the CD-ROM *Viagem pela História do Brasil* by Jorge Caldeira, is without a doubt currently the best choice. It is of superb scientific and technical quality, and is the most appropriate medium for a university audience. Also of great scientific and technical accuracy, and very useful as a search tool as well as for use in open-access areas, on the overseas expansion and colonial history of Portugal, are the CD-ROMs in the *Ophir* collection of the *Biblioteca Virtual dos Descobrimientos*, promoted by the Commission for the Commemoration of the Portuguese Discoveries. The first regular publication on the subject matter of the Portuguese discoveries and its impact, was the *Revista Studia* (vol.1 to 53) published from 1958 to 1994; another journal on the same topic is the *Boletim da Fílmoteca Ultramarina* published from 1954 to 1993 and of great interest to anybody involved in this field of study. To complete the catalogue of major journals on CD-ROM the launching of *Mare Liberum* (vol. 1 to 13) must be noticed. All these CD-ROMs are very well designed, optimising any research done on this matter. More directly linked to the study of the history of Portuguese culture, the *Biblioteca Virtual dos Descobrimientos* is working on several CD-ROMs, creating primary sources for the study of Portuguese writers and their works. *Biblioteca Lusitana*, which was the first encyclopaedic compilation of Portuguese writers and their works, drawn up by the bibliophile Diogo Barbosa Machado and edited between 1741 and 1759, is already available on CD-ROM. *Décadas da Ásia* by João de Barros is now available on CD-ROM, which guarantees scholars of Portuguese culture and literature

access to this essential work of reference of the Portuguese Renaissance. An extra edition on the commemoration of the 500 years of the discovery of the maritime routes to India was edited in the form of a CD-ROM about the navigator Vasco de Gama, who opened in 1498 the maritime route to India.

The coverage of the study of art is weak, without a doubt, with only one CD-ROM, although the bilingual CD-ROM *Arte Portuguesa do Século XX Century* offers the most passionate documentary and visual journey through the history of Portuguese art of the 20th century. The clear and well chosen organisation of this CD-ROM eases the search and navigation process. The century is divided into nine decades, each consisting of a general presentation of the decade, a section on the main artists and another section for their followers, thus establishing a bridge for the following decade. Paintings, sculpture and designs of the artists are presented through excellent reproductions together with short comments on the artists. At the same time as we admire the artistic works, we can also hear critical comments. For its great technical, aesthetic and scientific quality and for the way in which it integrates all the arts into the historical and aesthetic periods, this CD-ROM is extremely useful for the teaching of art, history of literature or in more generic terms, for the teaching of Portuguese culture in the 20th century.

We would not like to end this article without talking about the importance of the Web in the teaching of Portuguese language and culture. The potential of this tool in the teaching and research of the Portuguese language is undeniable, although we are still considering how best to deal with all the information available. Much of the Web is in English, but it is also true that much is written in Portuguese too, or even in English about the Portuguese language. Some suggestions appear at the end of the article.

5. Summary

At the end of this voyage through the current multimedia resources available to teachers and students of Portuguese language and culture,

one can conclude that the increasing demand for multimedia as a privileged method of transferring knowledge, despite a lack of tradition, has led to good quality material that should be explored and promoted. Approaching these resources not only as supplementary material, but also as effective support material in the classroom itself and thus as active material in the curricula, will result in more efficient, and above all, more challenging courses for both teachers and students.

At moments of deadlock, but especially of expectations in relation to the big changes that the application of computers in language teaching is already bringing about, and whose dimensions will definitely widen and become even less quantifiable, we argue that the strategy to follow in languages such as Portuguese on the 'language market' to which university students have access, is to concentrate on multimedia and new technologies. As such, we suggest sensible exploitation of the existing quality material and with it, its great didactic and research potential. Secondly, real investment in the creation of new multimedia material, especially in the area of Portuguese as a foreign language. And thirdly and very important, the training of Portuguese teachers and creating awareness of the new technologies. All these seem the right methods for the promotion and teaching of Portuguese as a foreign language in the near future.

With its European, South American and African dimensions, Portuguese is, through its diversity, a language that offers a multitude of cultures, peoples and markets, which nowadays is even closer thanks to the quality and efficiency of modern transport systems. Using multimedia resources in the study of the Portuguese language and culture will give students the necessary skills to enjoy, even more now, the variety of cultures the Portuguese language has to offer. The study of Portuguese should also in this way open up the door to the world of multimedia, which is an essential part of the training of today's students.

Note

1. The WELL project: <http://www.well.ac.uk/>

References

- Cook V. (1991), *Second Language Learning and Second Language Teaching*, Arnold: London.
- Hooper R. (1988), *A View of the Future of Computers in Education*, IFIP, Informatics and Education. Elsevier Science Publishers: North Holland, v-43-v-48.
- Itizarré E. (1992) "Courseware in the Humanities: Expanded Horizons", *Computers & the Humanities* 26 (4), 275-284.
- Thompson J. (ed.) (1993). *Language Learning and Computers: A Survey of Use in the UK Higher Education Sector*, Hull: CTI Centre for Modern Languages, University of Hull.

Resources

1. Multimedia Dictionaries and Tools

1.1 Dictionaries on CD-ROM (PC Windows/ Mac)

- Dicionário da Língua Portuguesa - Profissional*, Porto Editora/ Priberam, 1998
- Grande Dicionário Universal da Língua Portuguesa*, Texto Editora, 1999
- Dicionário Universal da Língua Portuguesa*, Texto Editora, 1999 (version 4.0)
- Dicionário de Inglês/ Português - Profissional*, Porto Editora/ Priberam, 1996
- Dicionário de Português/ Inglês - Profissional*, Porto Editora/ Priberam, 1996
- Dicionário Universal Inglês/ Português*, Texto Editora, 1999
- Dicionário Universal Português/ Inglês*, Texto Editora, 1999
- Dicionário Verbo Técnico e Científico Português/ Inglês & Inglês/Português*, Verbo
- Dicionário de Caboverdiano-Português (Variante de Santiago)*, by Nicolas Quint-Abrial, Priberam Informática/ Verbalis, 1999

1.2 Tools - Spellchecker and thesaurus

- FLIP 97 - Ferramentas para a Língua Portuguesa*, Porto Editora/ Priberam, 1997 (3 floppies, version for PC Windows and Mac +manual)

1.3 Other multimedia resources on language

- Prontuário Ortográfico e Guia da Língua Portuguesa*, Editorial Notícias, 1996. (CD-ROM+Book)

2. Language Exercises Tools

- Fonografe*, Porto Editora, 1997 (CD-ROM + manual)
- Caça às Letras* Lidel, 1996 (1 floppy+manual)
- Gramática e Verbos*, Texto Editora

3. Encyclopaedias on CD-ROM

- Diciopédia 99*, Porto Editora/ Priberam, 1999 (2 CD-ROMs)
- Enciclopédia Universal Multimédia em Língua Portuguesa*, Texto Editora, 1997

4. Literature on CD-ROM

- Vida e Obra de Luís de Camões 2.0*, Porto Editora, 1999
- Auto da Índia*, by Gil Vicente, Porto Editora, 1999
- Auto da Barca do Inferno*, by Gil Vicente, Porto Editora, 1999
- De Bocage a Antero - Percursos do Romantismo Português*, Porto Editora, 1998
- Fernando Pessoa Multimédia*, Texto Editora / Casa Fernando Pessoa, 1997
- Vida e Obra de Fernando Pessoa*, Porto Editora, 1998
- Wordsmiths - Dicionário de Escritores Contemporâneos da Dinamarca, Irlanda e Portugal*, Universidade Aberta/Danks Bibliotecks Center/ Dublin Corporation Public Libraries, UNI-C, 1997
- Biblioteca Virtual dos Autores Portugueses* (CD-ROM 1 and 2), Biblioteca Nacional, 1998
- História Universal da Literatura Portuguesa*, Texto Editora, 1999
- Jorge Amado*, Casa Jorge Amado, Salvador/ Brazil.

5. History on CD-ROM

- História de Portugal*, Texto Editora, 1997
- Navegar - o tempo português século XV - século XVI*, Oda Edition, 1998.
- Os Descobrimentos Portugueses*, Esquilo, 1999.
- Exploradores do Novo Mundo*, Porto Editora/Softkey, 1999
- Lisboa e o Mar*, Vipsoft, 1999
- Vasco da Gama, 1497-99*, CNCDP, 1999
- 25 de Abril 1974 - Roteiro da Revolução*, Museu da República e Resistência/C.M.L., 1999
- 25 de Abril 1974 - Uma Aventura Revolucionária*, Centro de Documentação 25 de Abril, 1999
- Viagem pela História do Brasil*, by Jorge Caldeira, CIA DE LETRAS.
- História do Brasil - Do descobrimento à independência*, Objectivo.
- História do Brasil - O Império*, Objectivo.

História do Brasil – Do descobrimento aos nossos dias, ATR.

A Era Vargas, ATR.

5.1 *Biblioteca Virtual dos Descobrimientos on CD-ROM (by the Commission for the Commemoration of the Portuguese Discoveries (Comissão para as Comemorações dos Descobrimientos Portugueses)*

Revista Studia (vol.1 to 53), CNCDP, 1996

Boletim da Filmoteca Ultramarina (1954-1993), CNCDP, 1997

Bibliotheca Lusitana (de Diogo Barbosa Machado), CNCDP, 1997

Décadas da Ásia de João de Barros, CNCDP, 1999

Revista Mare Liberum, vols.1 to 13, CNCDP, 1999

Vasco da Gama, 1497-99, CNCDP, 1999

6. *Art on CD-ROM*

10 Anos Salão Nacional de Caricatura – 1987-1996, Ciberbit, 1997

Arte Portuguesa do Século XX Century Portuguese Art, Instituto de Arte Contemporânea/Ministério da Cultura, 1998

7. *Journals on CD-ROM*

Hispania – devoted to the teaching of Spanish and Portuguese, American Association of Teachers of Spanish (Articles from 1917 to 1991)

Revista Studia (vol.1 to 53), CNCDP, 1996

Boletim da Filmoteca Ultramarina (1954-1993), CNCDP, 1997

Revista Mare Liberum, vols.1 to 13, CNCDP, 1999

8. *Web resources*

Instituto Camões is a Portuguese institution dedicated to the teaching and spreading of the Portuguese language abroad. Information concerning Portuguese as a Foreign Language/Thematic Database on Portuguese Literature/grammar on-line/ Much other information
<http://www.instituto-camoes.pt>

The Portuguese Language

Information about the Portuguese language through time: African and Brazilian variants
<http://www.leca.ufrn.br/portugues/index.html>

Portuguese Language

<http://www.kcl.ac.uk/depsta/humanities/pobrst/pptlang.htm>
General Dictionaries on-line/Courses on the Web/Resources for Teaching/Summer courses at Por-

tugetse Universities

Internet resources for Lusophone World presented by country and thematic areas
Portugal, Brazil, Angola, Mozambique, S. Tome & Príncipe, Guinea-Bissau, Macao and East-Timor
<http://www.kcl.ac.uk/depsta/humanities/pobrst/links.htm>

Contemporary Portuguese History Resource Centre
<http://www.dundee.ac.uk/polsci/cphrc/index.htm>

Useful contacts and homepages

In Portugal and Brazil

Porto Editora

Rua da Restauração, 365, 4099 Porto
Tel. (0)2 2005813 / Fax. (0)2 2007669
Web page - <http://www.portoeditora.pt>

Texto Editora

Alto da Bela Vista, 2735 Cacém
Tel. (0)1 4261001 / Fax. (0)1 4261532
Email: textoeditora@mail.telepac.pt
Web page - <http://www.textoeditora.pt>

C.N.C. D.P.

Casa dos Bicos
Rua dos Bacalhóiros, 1100 Lisboa
Tel. (0) 1 8884827 / Fax: (0) 1 8873300
Email: ophir@cncdp.pt
Web page: <http://www.cncdp.pt>

Universidade Aberta

Universidade Aberta – CENTED
R. Escola Politécnica, 147, 1250 Lisboa
Fax: (0)1 3973229
E-mail: mumlib@univ-ab.pt

Editorial Notícias

<http://www.editorial.pt/>
Brasoftware (for CD-ROMs on Brazilian subjects)
Tel. (011) 3179-6900
Fax 011 3179-6800
Web page: <http://www.brasoftware.com.br>

In the United Kingdom

Grant & Culter

55-57 Great Marlborough Street
London W1V 2AV
Tel. (0) 171 7342012 / Fax.(0) 171 7349272
Email: postmaster@grant-c.demon.co.uk
Web page- <http://www.grant-c.demon.co.uk>

In the United States

Luso-Brazilian Books

Box 170286
Brooklyn, New York 11217
Tel.1.718624400 / Fax. 1.7188580690
Email: lusobraz@tiac.net

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