The multicultural-scope of the services offered by the Miguel de Cervantes digital library project.

Alejandro Bia
Miguel de Cervantes Digital Library
University of Alicante. Spain
Apdo. de correos 99, E-03080, Alicante, Spain
phone: 34-965909567
fax: 34-965909477
e-mail: abia@dlsi.ua.es

Abstract

The Miguel de Cervantes Digital Library hopes to act as a vehicle for the Hispanic academy to promote their works, as a window to Hispanic literature and culture for scholars of Hispanic languages, and as a voice for the Hispanic community worldwide meant to reach an international multiracial and multilingual student and academic community of Internet users. An intelligent use of multimedia, allows us to provide access to a wide range of users with different accessibility requirements including services for hearing or visually impaired users, and for users with different access speeds and computer platforms.

This article describes the wide range of cultural services that can be offered to a worldwide audience, using digital resources.

Description of the project

The Miguel de Cervantes Digital Library of the University of Alicante, Spain (http://cervantesvirtual.com), covers many different cultural and academic subjects. It consists of a variety of types of multimedia materials such as hypertext books, facsimile books, images, audio recordings, and videos. Since the beginning of this digital library two years ago, about 64,000,000 accesses have been made. Currently, the average number of pages served is 21,000 daily. 71% of our users are from Spanish speaking countries (Spain and Latin America), 6% from the rest of Europe, and 23% from the rest of the world.

History

The project began in late 1998 with a small team of 5 persons performing preliminary trial and error tests to determine the viability of the project and to find the most adequate production methods and tools. After this initial phase, massive digital book production started in March 1999, with about 80 persons working on digitisation and correction of texts and a small team of computer

technicians mounting the computer infrastructure, developing automatic tools for efficient production and designing the publication processes and the web site. The library was opened to the Internet public in July 1999 with approximately 800 books. Now it has more that 6000 works in catalogue.

An average of 120 university graduates and technicians is currently working in this project as librarians, scanner operators, correctors, mark-up specialists and computer technicians.

Financial support

The Miguel de Cervantes Digital Library is the result of a unique collaboration between the University of Alicante and Spain's biggest bank, the Banco Santander Central Hispano, who have joined forces to create the world's biggest digital library containing Spanish works. It represents an example of a successful partnership between university and business, with the Santander Central Hispano Bank providing complete sponsorship for the full development of the project. The University, on the other hand, provides the academic expertise, technological know-how and qualified workforce necessary to fulfil the objectives and ensures the international use of the Library's resources by means of collaboration agreements with universities and institutions all over the world [Bia and Pedreño, 2001].

Multilingualism and multi-culturalism

The library collection focuses on Hispanic literature, history and culture, in various Hispanic languages such as Catalan, Basque and Galician, or Latin-American native languages as Quechua, Mapuche or Guaraní in addition to Spanish.

It is meant for a wide audience covering different ages, interests and cultures. The library includes such diverse resources as digitised cultural magazines[1], a library for children[2], and academic research resources like PhD theses[3].

Besides, the digital library has whole sections devoted to many renowned academic institutions and national libraries of Latin America, who contribute their valuable funds to our library for digitisation[4]. These sections are meant to preserve and promote minority Hispanic-related languages, and to affirm different Hispanic cultures. The design of these sections does not only entail the use of new techniques, but also involves collaboration agreements whereby staff from the Miguel de Cervantes Digital Library travel to other centres, universities and institutions all around different areas of Spain and Latin America in order to

---

1 http://www.cervantesvirtual.com/hemeroteca/

2 http://cervantesvirtual.com/portal/platero/

3 http://www.cervantesvirtual.com/tesis/tesis_catalogo.shtml

4 http://www.cervantesvirtual.com/portales/portales.shtml

digitise the documents, objects and works of art that will be finally published on the library main server. After some training, staff from the contributing institutions begin to digitise and correct the texts which are finally marked-up, supervised, processed and published in Spain.

Existing multicultural sections include: the Library of Catalunya[5] and the Joan Luis Vives Institute[6], both with works in Catalan language, country specific collections as the National Library of Chile[7], the National Library of Argentina[8], the College of Mexico[9] and the José A. Portuondo Valdor Institute of Literature and Linguistics of Cuba[10], and thematic portals such as DOXA[11], about the philosophy of law, Hispano-American Novel of the XIXth Century[12] (Benito Varela Jàcome fund), XIXth Century Spanish Literary Society[13], Association of Spanish Theatre Authors[14], Hispano-American Constitutions[15], Geographic Research[16], and a portal on Industrial and Intellectual Property[17].

Other important sections of this digital library, under the title of "Authors' Libraries", are special collections dedicated to selected world-renowned Hispanic authors[18]. They consist of personalized web pages describing their life and works with links to their digital books within the library as well as to external resources. Manuscripts and special valuable documents of the authors (like drawings, photographs, book covers and personal letters) are usually provided. In the case of contemporary authors, videos and audio recordings give a closer appreciation of their personality[19].

Apart from this vast number of local resources, the digital library functions as a gateway to external Hispanic resources through a section called Libraries of the World[20] with links to other outstanding digital resources on the Web.

---

5 http://cervantesvirtual.com/portal/BC/

6 http://lluisvives.com/

7 http://cervantesvirtual.com/portal/BNC/

8 http://cervantesvirtual.com/portal/BNA/

9 http://cervantesvirtual.com/portal/ECM/index.html

10 http://cervantesvirtual.com/portal/ILL/

11 http://cervantesvirtual.com/portal/DOXA/

12 http://cervantesvirtual.com/portal/BVJ/

13 http://cervantesvirtual.com/portal/SLESXIX/

14 http://cervantesvirtual.com/portal/aat/

15 http://cervantesvirtual.com/ portal/constituciones/

16 http://cervantesvirtual.com/portal/IIGG/

17 http://www.uaipit.com

18 http://www.cervantesvirtual.com/biblioteca_autor.shtml

19 http://www.cervantesvirtual.com/bib_autor/mbenedetti/video.shtml

20 http://cervantesvirtual.com/bib_mundo/biblioteca_mundo.shtml

A wide range of media and a wide range of accessibility options

About 5,000 digital books were created and made available in the digital library. They are basically public domain Hispanic classics written or published between the twelfth century and the nineteenth century. Contemporary works are also included. Genres of these books include prose, drama, verse, dictionaries, history, and others. The digital forms of these books were encoded by using the TEI (Text Encoding Initiative) standard [Sperberg-McQueen and Burnard, 1994] [Burnard, 1995]. This digital texts, which are the vast majority of the library works, are easily accessible for all kinds of internet user, even those with modest PCs and dialled-up connection. Text offers both the advantage of being light in terms of binary size and transmission speed, while offering the versatility of electronic search, easy transformation to different formats with different rendering qualities, and the possibility of offering useful computer based services like automatic concordances. · Concordances of selected works based on TACT [Bradley, 1991] and TACTweb [Bradley et al., 1997] are currently provided to be used by literary students and researchers[21].

At the same time, in the case of manuscripts and rare old books, facsimile versions of digital books were also produced[22]. Facsimile images have higher transmission demands, but are incomparable when dealing with manuscripts or outstanding old printings. They give distant readers the opportunity to see these valuable pieces without having to travel and ask for special access authorizations.

The audio collection features a Library of Voices with quality recordings of top Hispanic voices by volunteers[23]. Well-known Hispanic poets and authors also take part in the production by reciting parts of their own works. This collection is of interest for the general public, but specially for visually impaired users. A special interface big letter size has been designed for this purpose. Additionally, an alternative navigation structure based on sound is being designed for the whole library in cooperation with ONCE (Organización Nacional de Ciegos de España: Spanish national organization for the blind).

This collection also features a Library of Signs[24] for serving hearing impaired users where images of persons using sign language are synchronized with scrolling literary texts.

At the highest-bandwidth end, the video collection features recordings of cultural events, interviews, readings by original authors, comedy groups and selected parts of theatre performances.

---

21 http://cervantesvirtual.com/FichaObra.html?portal=0&Ref=003603

22 http://www.cervantesvirtual.com/bib_autor/Calderon/manuscrito/p1.html

23 http://www.cervantesvirtual.com/bib_voces/bibvoces.shtml

24 http://cervantesvirtual.com/portal/signos/

Communication and interactive services

With the aim of giving something close to the personalised service of a conventional library, the digital library provides communication facilities such as a virtual librarian, debate forums[25], our own electronic news bulletin[26], and a service devoted to the exchange of information to locate rare and out-of-print editions of books between readers, collectors, publishers, and booksellers[27]. The Virtual Librarian is a web-form based service, made available to answer standard questions[28].

Most of the library deals with either public domain ancient books, or contemporary works whose copyright have been donated to the library. To cover the space of contemporary commercial copyrighted works, the library has developed a section called Primera Vista[29] ("First Sight"), which is a service of book reviews and previews of the latest paper editions, where first chapters of the books can be read on the Internet.

The **Miguel de Cervantes** Digital Library aims to become the most ambitious project of digitalisation of Spanish works through the application of new methods of electronic publication for mass documental information.

References

[Bia and Pedreño, 2001] Bia, A. and Pedreño, A. (2001). The Miguel de Cervantes Digital Library: The Hispanic Voice on the WEB. LLC (Literary and Linguistic Computing) journal, Oxford University Press, 16(1):149-166. Presented at ALLC/ACH 2000, The Joint International Conference of the Association for Literary and Linguistic Computing and the Association for Computers and the Humanities, 21/25 July 2000, University of Glasgow.

[Bradley, 1991] Bradley, J. (1991). TACT Design. In Wooldridge, T. R., editor, A TACT Exemplar, volume 1 of CCH Working Papers, pages 7-14. Centre for Computing in the Humanities, Toronto.

[Bradley et al., 1997] Bradley, J., Rockwell, G., and Stevens, A. (1997).TACTweb, an experimental software to access TACT databases through Internet. http://tactweb.humanities.mcmaster.ca/index.htm.

---

25 http://www.cervantesvirtual.com/foros/foros.shtml

26 http://www.cervantesvirtual.com/bol_noticias/noticias.shtml#Dulcinea

27 http://www.cervantesvirtual.com/trueque/Trueque.shtml

28 http://www.cervantesvirtual.com/bibliotecario/

29 http://cervantesvirtual.com/pvista/PrimeraVista.shtml

[Burnard, 1995] Burnard, L. (1995). Text encoding for information interchange: An introduction to the text encoding initiative. http://www-tei.uic.edu/orgs/tei/info/teij31/index.html.

[Sperberg-McQueen and Burnard, 1994] Sperberg-McQueen, C.M. and Burnard, L., editors (1994). Guidelines for Electronic Text Encoding and Interchange (Text Encoding Initiative P3), Revised Reprint, Oxford, May 1999. TEI P3 Text Encoding Initiative, Chicago - Oxford.