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**TICVIDA '05. TO BECOME EUROPEAN DOCUMENTALISTS:  
AN IBERO AMERICAN LIFE SCIENCES DOCUMENTATION  
E-CONGRESS.**

**Enrique Wulff Barreiro**

Marine Sciences Institute from Andalucía (CSIC)

Cádiz, Spain.

[enrique.wulff@icman.csic.es](mailto:enrique.wulff@icman.csic.es)

**ABSTRACT:** 19 speaking-speaking American countries formed 60%, Brazil 3%, and Spain 37% of the participants of the March 05 e-congress promoted by the Hispanic Association of Internet Documentalists (AHDI, <http://www.documentalistas.com>). The current development in information technologies targeting life sciences conjugated motivations for collaborative work. The European organizers focused on: gaining access to complementary expertise/results; developing longer term links; sharing costs; establishing or familiarizing with standards; gaining expertise of European markets; monitoring competitors' activities. Awareness of American topics and issues raised by the electronic congress was a ceiling on the Europe's documentalists contribution, and to become fully informed resulted into a collective dynamics of opinion.

Three subject themes about public health, biology and social sciences achieved the basic platform for discussion along the five first days. 28 communications, available as compressed files, nourished the public health forum (what resulted in 480 pages of the printed version), 19 communications expressed the biologist's interests' (340 paper pages), the selection, appraisal and retention of social science data occupied 13 communications and 241 pages. Five general debates were organized what included medical equipment and IT, internet and biology, the information and documentation professional in health, teaching and labor market in social science, and humanistics views on internet in biology.

A round table was instituted as the switching point between the first and the second part of the event. Hope in the IT market as a social structure was expressed in considering life sciences.

The second part of the e-congress was based on three workshops. The e-congressists were invited to contribute to sessions prepared from the European documentation centre (Alicante, Spain), the Isla de la Cartuja (Seville, Spain) internet firm Sadiel, and from the University of Huelva (Spain). EU policies related with life sciences, e-learning and university contents virtualization showed the evidences allocating this comparative Ibero American analysis all its value.

## **Introduction**

350 professionals coming from 21 Ibero-American countries concentrated its analysis on information technologies and the implications of this in terms of life sciences. More than 80 communicators from 16 countries shared their knowledge on health, biology and social sciences by using the e-congress platform along 13 days (March 1-13, 2005). The expected output of such an event was a CD-Rom (<http://www.documentalistas.com/privada/modules.php?name=Sections&op=printpage&artid=86>) facilitating access to the 1150 pages book of proceedings.

As a catalyst for the development of this e-congress the Hispanic Association of Internet Documentalists (AHDI, [www.documentalistas.com](http://www.documentalistas.com)) acted by bringing together practitioners (anesthesiologists, epidemiologists, rural doctors), university and technological schools professors, information managers, documentalists and librarians, nurses, computer engineers, NGO executives, TV scientific journalists, industrial engineers, kinesiologists, dentists and town hall financial telematic managers.

AHDI is the European and American association of 1800 partners, created in 2002 February, and with territorial sections at work in 16 countries. The association assists its members by bringing them together in its workshops, congresses, post-graduates courses, and professional meetings. It also publishes the proceedings of the events its manages, it supports a professional journal <http://www.bibliosperu.com/>, it offers grant schemes, such as the provided to twenty TICvida participants, it maintains a job offers alert system and it keeps a health virtual library [http://www.documentalistas.com/web/bvcs/index\\_english.htm](http://www.documentalistas.com/web/bvcs/index_english.htm).

It also conducts the elaboration of issues of strategic importance like the first Spanish catalogue of commercial software, and on behalf of its members it provides them with all the web services available from the Association (subdomains, e-mailboxes, assignable ftp, cgi scripts, databases, e-forums, chat computer halls and similars).

It maintains close relations with some 60 professional institutions within and outside Europe (an example could be <http://www.documentalistas.com/web/cbav/>). By its activities, the AHDI has disseminated information on TICvida 2005 across the disasters alert information center in Costa Rica, the Pan-American health organization, the Argentinean education ministry, the health on the net foundation (Switzerland), the Spanish societies of maritime medicine and cardiology and through other institutional and press media.

The TICvida 2005 institutional support was composed of organizations which are major scientific councils and funding organizations within their country in America and Europe. In developing this activity AHDI obtained the joint auspices of the national councils for science and technology from Equator, Mexico, Uruguay, Guatemala, Honduras and Peru and the support of the Argentinean and the Uruguayan Ministries of Education, the

Health Ministries of Uruguay, Paraguay and Chile and the Federal Foundation for Research in Brazil was also obtained.

TICvida was supported by red.es, the governmental organism for the scientific and academic information technology network (redIRIS), by the savings bank Caja Madrid, and by the University of Vic (a private entity). Between the last well-known cyber conferences dedicated to the Information Technology supported communication, coming from the Ibero-American countries, are the Online Congress for the Observatory of the Cybersociety (2<sup>nd</sup> edition 2004, <http://cibersociedad.rediris.es>) and the Ibero-American Communication Biennial (5<sup>th</sup> ed. 2005 Sept., <http://www.bienaldecamunicacion.org/>). Also, supported by the University of Valencia (<http://robotica.uv.es/conf/eatis2006/>), a next 2006 e-conference will consider the European and American web based information services.

#### **European organizers focal points.**

##### **Gaining access to complementary expertise/results.**

The delivery of health services can be sustained by information/communication officers as it appears to have been particularly successful in the case of the Colombian Health Patrol ([www.healthpatrol.co](http://www.healthpatrol.co)). The implementation of a derived series of recommendations was a result of the telemetric estimation of ‘*Heloderma horridum charlesbogerti*’ population size inside Guatemala (where viable conservation strategies were designed after the radio-telemetric information produced with turtles). Invasive species are detected through GPS devices at the Isabela Island (Galapagos) project. Patrol and fishery combined datasets are at the moment considered in a well-conceived pilot project searching to present them through the Archipelago’s maps. The economic value of the programs exposed were not the subject of detailed comment although it is to be emphasized that this is a value that, particularly when considering collective goods, should be a derivative rather than a primary consideration. Nevertheless, time savings of around two-three weeks are estimated when traditional dock count systems are replaced by online catch estimations available at anytime.

##### **Developing longer-term links.**

The need to consider the long-term consequences of alternative basic philosophies was examined. The clinic application of the sonar, the background of nowadays medical scanner, had an initial phase 1947-1962 that presupposed the exemption of the work with animals at the laboratory. Individualized and best-qualified training sessions were offered by InterNiche through the virtual substitution of animals by specific designs. The “alternatives” to the harmful animal use through the computer simulation software present an important potential of support to the educative practice.

##### **Sharing costs.**

Careful work was rewarded with acknowledgment when complete library holdings occurred to be automatized. It suggested that search time savings (one of Ranganathan’s

law a contribution expressed) advised the elaboration of health software solutions catalogues. Making internet more organized, working in cataloging it, demonstrates the profit under the marketing. The costs associated to Pan-American health initiatives, like BIREME's catalogue of products (<http://productos.bvsalud.org/html/es/home.html>), resulted from direct agreements with the research institutions and groups, a former member of PHO/WHO reported. The participants regarded their place at an European e-congress platform as economically affordable, and expressed their experiences in free of registration costs virtually like the Ibero-American aquaculture three editions e-congresses organized by the Ichthyopatolgy Laboratory, University of Zaragoza, <http://www.civa2004.org>. The information ownership difficulties attached to sharing costs policies on the part of the originators was advanced. In the realm of the absence of opportunities to publish Open Access was thus illustrated.

#### **Establishing or familiarizing with standards.**

The after-the-decision exchange of ideas is a primary deficiency in presence of the lack of executive attention. The derivative discussions regarded to the consequences of the XXIth Century based "know-how" new economy. The information-based business was thus underlined as a success and an operational criteria was the ability to extent commercial links out of the country where the firm was created. Thus the health and vigor of the biomedical expertise is more affected by "management" and not by "knowledge" deficiencies. The equatorian "Concepto Azul" (<http://www.uees.edu.ec/bio/hm/azul.htm>) received a particularly notable consideration.

#### **Gaining expertise to European markets.**

A profound understanding of the chemical substances involved into the nutritional processes is required to conjecture the evolution of the related legislative information. A collaboration between bromatologists and dietetics experts from Uruguay and Spain presented a web tool (<http://raaee.rai.usc.es/clemente/jsimal/EdulcWeb/Index.htm>) linking food and Spanish and European legislation. An example considering the saccharin identity and purity was designed to put out an example of an optimal search strategy using the proposed web.

#### **To monitor competitors' activities.**

Reference services supplied through internet need a hands-on approach. To give an idea of the grounds on which competitors answer the new educative needs an usual tool is the web visits' counter. The online UNAM Biochemistry and Molecular Biology service, from Mexico (<http://bq.unam.mx/~evazquez/>), links its existence as sole speaking-speaking electronic instrument in its specialty to its popularity as a 16000 times accessed web site in its first year. The authority of this modern scholarly service is thus advanced both from counting and from weighing criteria. The rationale of the internet publishing process results in that considerable value is to be added to the product, a parasitology interactive guide elaborated at the Complutense university e.g., during the process. Thus if early editions of the guide are authorial from its inception, after the engagement into more competitive schemes, the editors assumes the digitalization of the parasitological

preparations. By its utilization it is thought that other institutions will authenticate scholarship originated at the laboratory of zoology having produced this interactive guide. This way of presenting its scholarly credentials is a means for the internet-based reference sources, having received attention at TICvida '2005, of yielding benefits for the science reported in the new virtual instruments.

### **Biblio-informatics at the Congress.**

The will to avoid charges derived from intellectual property rights conducts to the use of open-source software. So the use of free code, as unskilled as it can be at first, looks as a culture technology of low costs, as less value can be added now than was possible in times pasts. Contributors believe that self-publishing practices find ways to add other kind of values like synchronicity when working at the same document from diverse workstations or networks. Otherwise the difficulty of acquiring the skills and equipment necessary to produce biblio-informatics e-tools are less with open source software now. It keeps some information officers in the knowledge business and others out of it, a pure product fugacity.

A highly specific marketing open-source platform, TikiWiki, was emphasized because of its leading coverage in terms of online synchronic work possibilities (its product is the 'Wikipedia' whose administrators entitle the name of 'librarians'). PHP-Nuke was the other programming tool involved. Its lay out is very attractive and the reader can rely on Spanish language developing. Truzone, <http://www.truzone.org>, is designed for a nuke solving the informative needs of the health sector. It bases its usability on endusers like medical doctors and the hospital community. The critical choice of which scholarly outlet was best suited to an article's subject matter result into the migration to the MySQL (Structured Query Language) in the case of the 1997 born aquaculture e-journal AquTIC (<http://www.revistaaquatic.com>), University of Zaragoza. Although the three times employed e-congress platform in aquaculture CIVA (<http://www.civa2004.org>), has another experience with SQL. Initially it was programmed as a web page using ASP (Active Server Pages), global variables (collected inside a file `global.asa`), CSS Style Sheets (Cascading Style Sheets) and an access menu programmed with Macromedia Flash. But limitations derived from bottlenecks constrained to 20 users the access to the platform. So the Microsoft Windows 2000 professional server first employed was abandoned and the laboratory of ichthyopathology migrated to a commercial server without a top in the limit of users, and also with the appliance of ASP Mail, a system that greatly simplifies the personalized e-mails posted by the contributors. A third edition was necessary because of saturation problems with Microsoft Access. The new adopted MySQL, although it is not able to support nested consults, it discriminates between technical and scientific communications that fit different evaluation criteria.

The e-congress participants enjoyed by knowing and been involved with the key players, i.e. the electronic platform available at TICvida 2005 integrates an utility designed to download the communications (offered as files in PDF format for printing) and it gives

special attention to a facility for pooling e-mail addresses and other professional data between the contributors. It was encouraging to see that the organizers maintained an usage statistics measuring the defacto downloading performed for each contribution. To increase participation and to support the sharing of commentaries between potential partners an information space was reserved beneath each contribution intended to obtain the opinions from the participant readers. The contributor's countries flag's were appended to their professional information.

### **The Biology Session.- The American Contribution.**

19 communications prepared for the TICVida 2005 event tried to meet the needs of the Ibero-American biology science and technology community. Brazil, Cuba, Peru, Equator, Mexico and Spain contribute to this session. 48 authors present their results in the Biology sector, 18% of them were biologists, 16% were veterinarians, 12% model contents from the meteorology, 10% issued from the information area, 10% were computer engineers, and also biochemists, nutritionists, environmentalists and other were associated to the authorship. The input coming from marine research provided 5 communications.

Taking into account that 70% of the papers were written in Spain, the participation of American countries were focused on National Parks computer monitoring, meteorology centers knowledge management and online available reference books. On National Parks a Brazilian contributor states a model for ontological engineering related with mammals, birds, herpetology, and invertebrates and plants at the Parque Estadual do Cantão ([http://www.seplan.to.gov.br/dma/areas\\_protegidas/area\\_protegida\\_informacoes\\_uc.htm](http://www.seplan.to.gov.br/dma/areas_protegidas/area_protegida_informacoes_uc.htm)) The other National Park studied was the Ecquatorial Marine Reserve associated to the Galapagos Island. Three technical offices, each one in a different island (Isabela, San Cristóbal and Floreana), work in a WAN (Wide Area Network) architecture with the Central Office of the Park (at the Santa Cruz Island) where the applications and databases are installed inside the main servers of the Park Direction. Inspired by the 'The Cathedral & the Bazaar' (Raymon, 2001 February) philosophy the computer system promotes the participation of the community of users as co-developers of the applications. The Fisheries record management (fisherman data, ships, fisheries works, etc.) was the initial aim of the project. But relevant data from two other sources are also collected: Tourism (personal cards for the tourism guides are available through the network, tourism guides, ships, routes control, visitors record), and Natural Resource protection (animals, plants, and resources exploitation). The applications were first employed on October 2003. Open source software has been used (Apache, PHP and MySQL). The web page user interfaces were designed with the script language PHP, they are managed with an Apache web server, and for the management and administration of the data a MySQL database was used.

A Caribbean meteorological Centre (Cienfuegos, Cuba, <http://www.cienfuegos.cu/Paginas/cmpcf/meteoro/general/index.htm>) web page was

described. The communication included an explanation of the intranet tool. Designed with Microsoft Access it comprises the library database of the centre. The same centre was the subject of a case study scrutinized both from the University of Cienfuegos and from the Provincial Delegation of the Science, Technology and Environment Ministry (CITMA). A proposal based on the methods Delphi and SAATY was advanced for the improvement of the knowledge management at the Centre.

Both from Peru and Mexico online reference books were displayed. The Peruvian resource was able to be download from the e-congress platform. It was called "Internet information sources for biology". It occupies 84 pages, it was developed at the University Ricardo Palma (<http://www.urp.edu.pe/>), and offered the material fitting a 20 subdivisions schemata : institutions, bookshops and publishers, databases (bibliographical and taxonomical), directories, internet searchers and portals, digital and Peruvian journals, etc. General, Cell and Molecular Biology, Geology, Zoology and Botany were also sections where the sources were stored. The entries include occasional descriptions of the material reported. Two glossaries with botanical and bibliotechnological terminologies are also supplied. "Online Biochemistry and Molecular Biology" (<http://bq.unam.mx/~evazquez/>) is produced at the Chemistry Institute from UNAM, Mexico. The leadership is secured by a professor from the Department of Biochemistry teaching surgery students. The tool is part of the UNAM "Nuclear Program for the Quality of Education" (NUCE). It contains information on metabolism clinical aspects, divulgation contributions on the subject and on the human genome. It is constantly updated and nowadays it contains some 600 URLs links to be visited from the hypertext defining its realm.

### **Euraslic at the TICVida'2005 Congress**

After the EUROCEAN 2004 (Galway, Ireland) Spanish oceanographers expressed their disappointment because of the restraints to the convergence process with the European oceanography derived from the EU disappearance of a specific European marine science program and the dilution of the Spanish marine science program between those of global change, natural resources, environment, etc.

IT used to promote quality assurance in marine science was the central idea on EURASLIC at TICVida 2005. To help counteract library subscription losses and to turn the survival of electronic archives under the point of view of the perpetual access criteria seem to be what can be do to attract the very best from the libraries side. EURASLIC close association with the ASFA database was presented as what will cumulatively establish the quality and reputation of the Association. Assuming editor' responsibility to exercise judgment at the subject gateways in marine science was emphasized as a singular product of our labors. Deliberately open to far-ranging claims EURASLIC could provide a sufficient number of subject editors. Otherwise participants in TICVida'05 were reported on the countries distribution of the EURASLIC's libraries, referenced with their web addresses. The publishing activity of EURASLIC was shown, a description of

the thematic contents of its conferences was facilitated, and the place of Eurasia inside the electronic market and its relationships with UNESCO were also scrutinized.

### **Conclusions.**

On the web those mechanisms to distinguish the worthy from the worthless are concerned in the electronic age with the word authority. The choice of the Ibero-American e-congress TICVida '05 (March 1-13, 2005) has been to focus the attention on a diversity of persons committed with the Life and Health Sciences. So primarily it has been a meeting of medical doctors, biologists, communicators and information managers. More than 600 messages have been produced along five subject themes, one round table and three workshops. And a book of proceedings with 1150 paper pages is available from AHDI as a CD-ROM.

In Spain the networks infrastructure for universities and research centers through internet is highly advanced, although it is scarcely employed (max. 20%, Oct. 2004). The European-based association AHDI by inviting information officers from 20 American countries celebrated an e-congress on life sciences and technology of information. The idea that it is the 'users turn' seem to inspire the organizers.