

SciELO - a Model for Cooperative Electronic Publishing in Developing Countries

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Access to adequate and up-to-date scientific and technical information is essential for economic and social development, especially in order to support decision making processes in planning,

formulation and implementation of public policies and to support professional development and practices. The results of scientific research are mainly communicated and validated through publication in scientific journals. This is true for both developed and developing countries; however, scientific journals from developing countries face several distribution and dissemination barriers that limit the access and usage of locally generated scientific information.

SciELO, Scientific Electronic Library Online, is a model for cooperative electronic publishing of scientific journals on the Internet. Especially conceived to meet the scientific communication needs of developing countries -- particularly Latin America and the Caribbean countries -- SciELO provides an efficient way to assure universal visibility and accessibility to scientific literature and contributes to overcoming the phenomena known as "lost science". In addition, the SciELO model comprises integrated procedures to measure the usage and impact of scientific journals.

The SciELO Model is the product of a partnership among FAPESP <<http://www.fapesp.br>> - the state of São Paulo science foundation and BIREME <<http://www.bireme.br/>> - the Latin America and Caribbean Center on Health Sciences Information, as well as national and international institutions related to scientific communication and editors. A pilot project, involving ten Brazilian journals from different subject areas, was successfully carried out between March 1997 and May 1998, and was aimed at the development and evaluation of an adequate methodology for electronic publishing on the Internet. Since June 1998, the project has been operating regularly, continuing to incorporate new journal titles and expanding its operation to other countries.

The SciELO Model comprises three components.

The model's first component is the SciELO Methodology, which enables the electronic publication of complete editions of scientific journals, the organization of searchable bibliographical and full text databases, the preservation of electronic archives, and the production of statistical indicators of the scientific literature usage and impact. The methodology also includes journal evaluation criteria based on international scientific communication standards. SciELO full texts are enriched with dynamic hypertext links to national and international databases, as for example, LILACS and MEDLINE.

The SciELO Model's second component is the application of the SciELO Methodology to operate web sites of collections of electronic journals. The SciELO Model envisions the operation of national sites as well as thematic sites. The pioneer application was the SciELO Brazil site <<http://www.scielo.br/>>, and Chile <<http://www.scielo.cl/>> is implementing the second application. Several other countries are being evaluated and/or are being trained on the SciELO Methodology. A regional thematic library covering public health scientific journals from Latin America and Spain -- SciELO Public Health <<http://www.scielosp.org/>> -- was launched in December 1999. A portal to integrate and provide access to the network of SciELO sites operates at <<http://www.scielo.org/>>.

The Model's third component is the actual development of partnerships among national and international scientific communication players -- authors, editors, scientific and technological institutions, funding agencies, universities, libraries, scientific and technological information centers, etc. -- aiming at the dissemination, improvement and sustainability of the SciELO Model.

By the end of 2001, SciELO is expected to network about 200 journals, covering ten countries. The operation of the SciELO network is based strongly on national infrastructures, which helps to guarantee its future sustainability.

The successful development of the proposed SciELO network of Latin America and Caribbean scientific journals in future years will contribute to making locally generated scientific information readily available. That will ultimately contribute to increase the usage of scientific and technical

information on the decision-making process at all levels.

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