Why and how to build an international information alliance like SIDALC?
The road travelled by Latin America and the Caribbean

Federico SANCHO

Publication and Documentation Unit, Inter-American Institute for
Cooperation on Agriculture, Costa Rica, federico.sancho@iica.int

ABSTRACT

The SIDALC alliance represents the effort of 23 countries and 158 specialized institutions interested in providing information services and knowledge sharing bases by means of increasing access to library catalogs and full-text repositories (freely available at www.sidalc.net). Inside its main metadata base AGRI2000, SIDALC gathers 2.1 million references and more than 100,000 full-text original documents, all from 256 databases of participating ministries of agriculture, research institutes, universities and colleges, and international centers, among others. As one of the largest ag-information networks in the world, SIDALC has taken advantage of the greatest resource available in the region: librarians and information specialists and their expertise in organizing explicit knowledge. They maintain a permanent dialogue via Listservs, Web 2.0 technologies and face-to-face meetings, which enable them to interact and jointly develop collaborative projects for their own countries and beneficiaries. National agricultural networks have maintained and strengthened their own identity while providing records to SIDALC, as well as having their own development of national information catalogs, digital libraries, and training and information policies. Alliances like PROCINORTE, SICTA, NAL-USDA and CAL-AAFC have been supportive of the integration of services. A recent alliance with Google has increased the visibility of SIDALC more than 4000% and has opened the opportunity to launch a major initiative to scan archives with ag-information available in the Americas via SIDALC.

After 10 years in operation, the achievements of SIDALC have been possible thanks to the technical support of the Inter-American Institute for Cooperation on Agriculture (IICA) and the seed money investment of $1 million from a grant by Kellogg Foundation. The goal of this paper is to present the "road traveled", including the reasons and the lessons learned in this international effort of Latin America and the Caribbean for the future benefit of other regions of the World.

KEYWORDS: Agriculture, Information services, libraries, databases, access to information, Internet, information technology, alliances, Latin America, Caribbean, SIDALC

INTRODUCTION

While networking has existed for many decades, today the possibilities offered by technology has reduced past limitations related with power control, efficient responses, fluent flows of information, stronger professionals linkages and effective communications among stakeholders. Networks in the new era are understood as a double flow interconnected system for individuals and their ideas

without the need of a central point but capable through different nodes to manage information and to support the creation of knowledge inside societies and organizations.

Indeed we must recognize that in the last three decades and under the task of building a "knowledge society" there has been important changes related with: the analog work of information; the scarcity of information as a resource; the restrains of means to communicate and the one direction channels between people. At present, we live in a World where mostly everything, other than Nature of course, is born digital or has an important digital component within; information proliferation is happening at high speeds and under a common ground called the Internet. Web 2.0 is bringing to the plate new forms of organization and multidirectional communications that means a whole new revolution about sharing and generating knowledge.

Some countries are taking the lead of such technological and informational revolution under the strong belief that accelerated knowledge transfer will become the competitive advantage of fast learning contemporary societies. The ideas of information, communication and technologies- not ICT[1] as one but three separated matters but interrelated- for development should be part of the international agenda and dialogue for sustainable integrated solutions.

In terms of *content*, the Internet increases in size twice every year, it feeds on at least 7 million documents and 183 billion emails daily (Google, 2009), plus all the different commercial databases that information providers offer to respond to the demand of specific sectors. Additionally more than 1000 new books are published daily according to Elsevier. Internet size is over 12 billion Websites demonstrating the abundance and difficulty to control such infinity universe. Based on an important publishing house there is enough new written material in a day to keep a researcher busy for 460 years.

In terms of *technology* the Information and Communication for Development Report 2009 analyzes the impact of high speed Internet access; takes a look at mobile technologies; provides policy options for rolling out broadband networks; presents a framework for e-government application and shows ICT sector indicators in 150 countries. The potential of broadband connections as a positive factor for rural incomes in developing countries is unquestionable, unfortunately ICT county indicators show important differences between high-income countries with 50% of its people with access to telephones lines (ATL), 100% access to mobile cellular subscriptions (MBS), 67.7% with access to personal computers (PC), and 65,7% Internet Users (IU). That data compared with upper-middle income group with 22.6% of its people with ATL, 84.1% to MBS, 12.4% with access to PC and 26.6% IU or with low-income countries with 4% of its people with ATL, 21.5% to MBS, 1.5% with access to PC and 5,2% IU. (World Bank, 2009)

Policy makers at governments and international organizations need to respond faster to those facts and promote better access and use of the information, communication and technology in developing countries as a tool for development. Efforts have been made and a large number of institutions have improved their communication and information services for agriculture at the national, regional or international level. One such example has been the Agricultural Information and Documentation Service of the Americas (SIDALC) that takes advantage of all the library collections and

---

[1] Information and Communication Technologies as we know them.

professionals in the hemisphere of 23 countries who have joined under one vision: To become the largest alliance of information and knowledge sharing in Latin America and the Caribbean (LAC). 10 years have passed since the day we started, lessons learnt and a long road has been travelled. The goal of this paper is to present the work done by LAC, try to understand its reason and present some future routes that can promote similar actions around the Globe.

REASONS TO HAVE AN INTERNATIONAL INFORMATION SERVICE

Information management (IM) as the ability to identify, organize, store and disseminate relevant information has been a key aspect in education, research, intelligence and development in general. Prior to the Internet, libraries played a unique role towards democratizing information and facilitator for the creation of knowledge, as well as the best mean possible to exchange literature between organizations.

An old way of sharing specialized information was through the publishing of selected bibliography or the national production report, both later sent to regional organizations so they could be shared to other specialized centers. In those days a greater challenge was faced related with inter library loans.

As technologies and human creativity allowed many libraries moved from manual catalogs organized in drawers to local databases (mostly in UNESCO-ISIS) allowing users to search under specific terminology; later as search engines improved better databases were put in place according to the expertise of information specialists. Local databases were now public thanks to the Internet letting no boundaries between the available resources and the needs of information- library catalogs now are part of the vast world of the web and are highlighted in Universities and Research Institutes websites. New options are now being implemented related with digital libraries and Web 2.0 tools to link better services with end-users. Five are the main drivers of an alliance like SIDALC:

a. A **stronger message of advocacy** toward the importance of information management for agriculture and the role libraries play. Many libraries and documentation centers are being closed under the "reason" of "everything is on the Internet". An alliance like SIDALC allows a current and permanent dialogue for the construction of better solutions for agriculture and development using IM.

b. The **need to improve library services** in LAC: A large group of professionals and non-professionals from the region have participated in training within the SIDALC network of specialized libraries. Also Orton Memorial Library from IICA and technical coordinator of SIDALC has promoted since 1942 an improvement cycle of IM in agriculture related with authomatization of catalogs, availability of those catalogs in the Web, digital libraries and Web 2.0. Knowing the terrain conditions and the data on technologies, there is much work to continue doing in LAC.

c. **Infinite amounts of information and cost increase**: Thinking that one library or documentation center will be capable to manage all of the resources needed to supply the demand of their researchers is a bit naive as financially impossible. The rise in subscription

charges of agricultural commercial journals between the years 2004 and 2008 was close to 34 per cent (Orsdel, L.C.V. and Born, K., 2008), while the year 2005 and 2009 was 32% (Orsdel, L.C.V. and Born, K, 2009). Almost 25.000 journals are available on the market. A network like SIDALC has promoted a fair use of grey literature and publications. In countries like Mexico a Consortium of Universities has been built in benefit of a national network.

d. **Building institutional memories and repositories**: Institutions like Ministries, Universities, NGO, and Research Centers, among others continue to lose an important amount of their explicit knowledge. The lack of information strategies or policies, inefficient flows of publishing and silos of power remained as characteristic of old management theories that destroy the Institutional Memory and its later use. A large amount of indigenous knowledge has never being collected, so there is a need to continue the dialogue between information providers, researchers, extension staff and farmers. Mexico, Argentina and Costa Rica own their national agricultural catalog of information.

e. **National agendas of collaboration**: SIDALC has focused its work on building or strengthening national networks according to their urgent issues, including policies formulation, training, strategic planning and partnership and product development. Based on their interest and goals, SIDALC is a common ground for networks to bond and define a joint work plan for short and long term actions.

THE SIDALC EXPERIENCE

In general and based on the data presented, agricultural and forestry organizations in Latin America and the Caribbean (LAC) had greater difficulties to stand up on the call for a "knowledge society", mainly because of regular constraints in investment or budget, lack of policies and specialized human resources, fragmented public organizations or silos and not having a long term vision related with information services and strategies. Public sector requires inter alia and interdisciplinary actions related with IM, either with internally or externally based resources as part of a current "hot topic" or a major work model like the knowledge creation process or building learning organizations.

The task of information management will not be completed if aspects such as strategies, policies, workflows, resources and tools related to expanding access to information with technologies and to the development of sustainable information services for productive sectors like agriculture. Stronger and clear strategies for IM and its subsequent use by target groups, either through Websites, Libraries, Documentation Centers or any other information systems is part of the "To do list" of managers and decision makers interested in efficiency, quality, innovation, competitiveness or excellence in their organizations and in the ag-sector in general.

The experience of over 150 institutions in LAC, along with the technical cooperation from the Inter-American Institute for Cooperation on Agriculture (IICA) has proven the long way forward. We have managed to maintain in operation an international information and documentation service for agriculture and related areas in the hemisphere for more than 10 years.

SIDALC is a network of institutions from 23 countries of Americans and their information professionals that inside the website www.sidalc.net provides services via their references desk and immediate full text access inside their repositories. Created in 1999 with funding from the Kellogg Foundation, today is a window to the most important organized knowledge of LAC. Its current content has increased to 2.1 million references and over 100,000 documents in full text from 256 national databases of key agricultural institutions. The Service provides access to information that is duly organized in libraries and documentation centers that share interests in food, agriculture, livestock, environment and forestry.

SIDALC is for public use; no subscription is required and can be used by the end-users through a search engine Agri2000, which in return leads to its federated catalog of references and full text. Furthermore, SIDALC has included other agricultural information systems from several American countries, which enable stakeholders to have important information and knowledge in a single meeting point.

The success of SIDALC is related with advantage taken with the enormous intellectual capital in the region, its institutions and national agricultural information network that, by acting as IM proactive intermediaries respond, expand and modernize its services to meet with the new paradigms of knowledge society. SIDALC is called upon permanent processes oriented to strengthen the libraries and specializing information units, as well as to increase the competencies of the professionals involved with these services.

The SIDALC is the result of the evolution of various initiatives aimed at IM since long ago and all promoted by IICA. They are the Orton Memorial Library founded in 1943, the Scientific Communication Service established in 1958, the Inter-American Association of Librarians and Agricultural Information Specialists (AIBDA) established in 1965, and the American Agricultural Information System (AGRINTER) founded in 1972.

WHAT CHARACTERIZES SIDALC?

The operation of SIDALC was made possible by a grant from the Kellogg Foundation in 1999, the technical leadership of IICA and CATIE and the significant participation of national, regional and international organizations interested in promoting the selflessly idea of "sharing information is power".

SIDALC can be conceived as a multifunctional platform. First because it operates as a community of information specialists in agriculture, forestry and related areas from various institutions interested in serving openly and without boundaries. A virtuous cycle is kept where "each shares a little to have much from all". Librarians are called upon to develop the information architecture of their countries and their networks, since its role as managers makes them key players of SIDALC. The service is composed of at least 300 professionals in agricultural and related information with high capacity to meet knowledge needs in the shortest of time possible.

In addition SIDALC is flexible and extremely respectful of the recognition of its members, maintaining their identity and adherence to policy delivery of services that each institution has created. The tool is not a "straitjacket" or exclusive type of superstructure; on the contrary it has been characterized in a liquid manner able to adopt a wide variety of standards, methodologies and databases. Most library catalogs in LAC are still managed by MICROISIS databases (name of the version most used CDS / ISIS software for personal computers) under various formats such as MARC, ECLAC, among others. That is precisely the greatest competitive advantage of SIDALC, as an open system for the hemispheric level that allows the linkage of more than 20 national networks, facilitates the exchange of data and interoperability between them, allows access to expertise through the metadata search engine AGRI2000 and share these search results worldwide via the Web and reference desks.

Finally one of its main strengths has to do with the content available. The possibility of integrating specialized library collections in agriculture means a quality stamp of the results obtained by researchers. If we also consider the possibility that such data bases store the institution´s intellectual production, it ensures highly relevant content and complements the urgency of many organizations to build their "institutional memory".

WHAT ARE THE BENEFITS THAT SIDALC HAS OFFERED SO FAR?

- Involvement in the largest hemispheric information service for agriculture and rural life in the Americas.
- Linkage to international information systems, a fundamental requirement in the quality accreditation processes of institutional services. For example the case of universities and their careers.
- Adding original content in an organized manner inside the same library catalog and collecting "indigenous" knowledge to our own countries. Gray literature such as theses, reports, projects, and others give higher value to such collection and knowing they are not that easy to retrieve from regular websites.
- Access to scientific material available in prestigious collections of special libraries in the hemisphere.
- Increased demand for reference services and positive impact on the use of our library collection
- Free access to proven tools and methodologies for information management.
- Exchange experiences among peers and institutions, which helps identify opportunities and find solutions to common problems.
- Global visibility of institutional collections through SIDALC.NET and Google.com without losing its identity.

SOME LESSONS LEARNED

- The cooperation at national level with unique institutions is important; however yields better the creation or strengthening of an inter-institutional network of institutions at country-level.
- The capabilities librarians have developed through common methodologies related with coherent document exchange and delivery services makes easy to integrate national networks and information products. This is not that simple with groups leading with statistical or geographical information.
- Working with networks, besides being less fragmented, generates healthy competition to the country's internal and external relation of power, which also serves as a stage to generate processes that result in better products.
- Faced with a scenario of abundance of information librarians play the role of "brokers" or intermediaries ensuring access to relevant content. They must lead IM processes in agriculture.
- International services or inter-institutional systems require formulas to ensure open participation, without a stone written outline, format or structure. Few institutions have the staff or are willing to feed more than one database with the same information. Any supra initiative must have the ability to harvest the resources from different countries. This ensures sustainability.
- The use of metadata and controlled vocabularies are key tools in ensuring quality and coherence.
- Any system or information service requires a commitment from the highest authorities, not only based on the good intentions but in concrete action in terms of investments, training and infrastructure.
- The current online library catalogs, many of them in WebAgris, can link original full-text which in the short term is the basis of digital libraries.
- Search engines like Google, far from a destructive competition, becomes a partner that enhances the efforts of one institution or country to provide current information.
- Information management (where they have room for these initiatives) is a less complex process related with knowledge management, since the latter involves putting into action all the resources provided.
- New trends such as knowledge management have generated fresh and innovative spaces to reset or upgrade existing information services in the Americas, mainly their libraries. But we have to understand that provision of information to individuals is not the same as solving their problems. (Heatley, 2007)
- The definition of end users, their needs and means to reach them with relevant information become crucial aspects to the design solutions. Here lies one of the biggest concerns of IM, thinking that the needs are always highly volatile and nobody demands anything until we know that something is available.

FINAL REMARKS

- Any endeavor inside IM requires clear goals and sustainability strategies according to the needs of a country. Otherwise is just a good toy to play for a while.
- The etymology of librarians as "guardians of books" has been largely overcome. Their new role has more to do with its ability to provide quality and precise information services, capitalizing on the diversity of digital media they manage and regardless of the formats they are.
- In contrast to having a wealth of information, libraries need to resort to specialization, taking advantage of networks, its services and collections.
- Libraries should be leading the recovery processes associated with institutional memory and improve the skills of its researchers.
- Have a vision of customers only as consumers of information, limits the chances for complete information management cycle, especially by identifying relevant content produced locally by them.
- The technology connectivity is still limited in the region, so further efforts are needed to increase the effective participation of all stakeholders in the digital world.
- The access level that shows the mobile phone means an opportunity to better engage users in the future.
- Digitization is one of the greatest opportunities to be considered. How to face the task will be part of the urgent decision that organizations need to take in the short term. Web 2.0 is the new way to bring over more info consumers and producers and built strong linkages with them.

REFERENCES

- Castells M, 2004. *The Network Society. A cross-cultural perspective*. Spain: Alianza Editorial, 557 p.
- Heatley, R, 2007. *Plan to Develop a Digital Information Infrastructure to Manage Land Grant Information.* Michigan State University. Available at: http://www.adec.edu/adec-agnic-digital-inf.pdf
- Van Orsdel LC, Born K, 2008. *Periodicals Price Survey 2008: Embracing Openness*. Library Journal 2008. Available at: http://www.libraryjournal.com/article/CA6547086.html
- Van Orsdel LC, Born K, 2009. *Periodicals Price Survey 2009: Reality bites*. Library Journal 2008. Available at: http://www.libraryjournal.com/article/CA6651248.html
- World Bank, 2009. *2009 Information and Communication for Development:Extending Reach and Increasing Impact*, Washington, USA: World Bank, 316 p.