Developing science & technology information access through consortia and international cooperation

Primer Taller Mesoamericano y del Caribe de Educación a Distancia y Biblioteca Digital

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What type of consortium?

The Buyers Club

*Pooling resources to get more for less*

The Connectivity Club

*Partnering among disparate organizations for the greater benefit of science and technology*

The Innovation Club

*Partnering among science and technology equals to discover new ways of working and knowledge creation*
Two case studies

Library Linkages Project of ISTEC (Ibero-American Science & Technology Education Consortium)

and

Alliance for Innovation in Science and Technology Information (AISTI)
Different missions

**LibLink:** Integral part of a larger mission to improve regional IT manpower and infrastructure capacity

Local: “Find, share and grow”

National: Maximizing value of industrial and academic efforts

Regional: Infrastructure, Policy development, Partnerships and Cooperation, Industry Partners in decision making

**AISTI:** Own its mission and Choose its partners (Local or Global)

Building from existing high capital outlay and capacity

Change the process of knowledge creation and use
ALLIANCE FOR INNOVATION IN SCIENCE & TECHNOLOGY INFORMATION

- Naval Research Library
- NASA Science & Technology Information Section
- New Mexico State University Library, Santa Fe Institute, etc.
- Air Force Research Laboratories
- Sandia National Laboratories Technical Library
- Los Alamos National Laboratory Research Library
- University of New Mexico Libraries
  - Centennial Science & Engineering Library
  1999 = 218 million

ca. 5 billion in scitech funding p.y.
From **Library Services Alliance of New Mexico** to **Alliance for Innovation in Science & Technology Information**

- Other Consortia: Library Linkages Project of the Ibero-American Science & Technology Education Consortium (ISTEC) and NSF / ESIG

- University of Utah, Montana State, New Mexico Highlands University, University of Nevada: Las Vegas & Reno campuses, UNM Health Sciences, etc.

- National Academies of Science

- Project Collaborators through Los Alamos: Max Planck Institute, Old Dominion University, etc.
Products and Services

* Passport Program & Rapid Document Delivery
* Consortium Database Contracts
  Soc.SciSearch & SciSearch®@LANL
  INSPEC®@LANL, Compendex, Biosis, etc
  Linked to

* Fulltext journals
* Single Intuitive User-interface
  Plus enhancements: Local holdings, Alerts, Links to e-contents, Linkseeker®, FlashPoint®, etc.
* Collaborative tool sets that facilitate scientific communication and provide insights into knowledge creation and discovery
Changing Visions

Buyers club 1998

To be a world-class information provider to our primary communities, while enhancing the scientific and technical research competitiveness of New Mexico.

Innovation club 1999

To be an innovative leader in cyber sci/tech information, producing new models of scholarly communication.
New Vision
* Sample strategic actions

* Community of scientists
* Active recommendation systems
* Cross database searching
* SFX aware databases
* Open archives
* Data visualization(eg. VxInsight)
ISTEC is a non-profit organization comprised of educational, research, and industrial institutions throughout the Americas and the Iberian Peninsula. The Consortium has been established to foster scientific, engineering, and technology education, joint international research and development efforts among its members, and to provide a cost-effective vehicle for the application of technology.
ACE Initiative

**GOAL**: upgrade of human resources and curriculum development through on-site training, distance learning, and non-traditional exchange programs.

**TECHNOLOGY**: on-site training, web-based education, video courses, satellite delivery, and “sandwich” graduate programs.

**STATISTICS**: 6 satellite courses to 250 institutions with ATEI. Short courses for Motorola. 196 scientists trained in DIP with OAS support. Over 30,000 ftp grabs of web DIP course. “Sandwich” programs with Spain, Brazil, Argentina, Colombia, Uruguay, Ecuador, Mexico.
R&D Laboratories Initiative

**GOAL:** design and installation of modular, flexible, and expandable laboratory facilities for education, training, and R&D (link with productive sector).

**TECHNOLOGY:** Motorola microprocessors (680XX), microcontrollers (68HC11) and DSPs (56XXX, 96000). Nortel Networks, Fluke, VeriBest.

**STATISTICS:** to date 29 Motorola facilities; planned expansion to 58. Approximately 20,000 users trained since 1991. 9 facilities with Nortel Networks, 2 with Fluke and 1 with VeriBest. Expansion to 12 facilities with VeriBest.
Los Libertadores Initiative and ISTEC Portal

**GOAL:** network of Centers of Excellence equipped with the latest telecommunications and computer technology to provide real-time access to a world-wide system of expertise and knowledge.

**TECHNOLOGY:** creation of the Ibero-American academic and R&D Internet backbone. A partnership among industries and governments.

**STATISTICS:** technical assistance in telecommunications and S&T legislation in Ecuador, and Bolivia. Participation in IADB’s Informatics 2000 Conference and its Strategy for IT&T.

*First Center of Excellence to be opened at Universidad de Monterrey on 24 May 2002 by the Minister of Education*
Library Linkage Initiative

**GOAL:** design and implementation of innovative, international Science and Technology information-sharing services.

**TECHNOLOGY:** Internet services and connectivity. Search and Push engines. Ariel and ILL software. Seed funding from Nortel Networks.

**STATISTICS:** annual compound growth rate of 200% between 1995-99. Over 50 libraries in 17 countries connected in real-time. Development of on-line scientific information, and database on S&T in the region.
Four LibLink Initiatives

Rapid Electronic Document Delivery

Consortial Electronic Content

Information Manpower Development

Digital Library Initiatives
Projects within LibLink

Initiative 1. *Connect libraries for Information Transfer*

* Rapid Electronic Document Delivery

- Open other collections - especially Latin American collections - for scholars
- Create regional offices (e.g. LigDoc, PrEBi, Red de Colombia, REBIDIMEX)
- Develop software for information sharing
Projects within LibLink

Initiative 2. Consortial Electronic Content

- Regional contracts for databases
- Open Archives participation/development
- E-journal packages
Projects within LibLink

- Initiative 3. Information Manpower Development
  - Plan and carry out workshops/training
  - Web-based Masters in Library & Information Science
Projects within LibLink

- Initiative 4. Digital Library Initiatives
  - Training in basic concepts
  - EDT’s in Ibero-America
  - Finding & Highlighting existing projects
  - Assisting National Digital Library Projects
Expanding Services: Mexican Case Study

* Spring 1998: ISTEC Technology specialist visited 7 Mexican SciTech institutions (Juan Larranaga)

**OUTCOME:** New members and more information about capacity

* Summer 1998: ISTEC representative participates in NSF / CONACyT computer Sciences Workshop (Johann). Digital Libraries initiatives and researchers; initiate a DL group (Alfredo Sanchez)

**OUTCOME:** Critical mass of Computer scientists linked to ISTEC

Expanding Services: Mexican Case Study

* Summer 1999: DL Workshop in Albuquerque

OUTCOME: Mexican DL workers, librarians & funding agencies brought together to plan future Mexican National DL Project. OAS participation and sponsorship of other Latin American representatives.

* Late Summer 1999: ISTEC representative toured Mexican SciTech libraries. Begin discussions to create a Mexican LibLink office. (Jorge Garcia)

OUTCOME: Critical mass of Mexican SciTech librarians linked to LibLink.
Expanding Services: Mexican Case Study

• Fall 1999: First meeting of Mexican Computer Scientists and Librarians from the above initiatives in Cuernavaca, Mexico (Jorge, Enedina, Ramiro, Johann)

OUTCOME: Establish a Mexican LibLink office, a SciTech Library Network, and a Mexican digital library interest group: REBIDIMEX

2000-2001 participated in three conferences in support of DL initiative
What are the highest priority information needs in Latin America?

- Shared LOCAL collections and access
- Shared regional and LibLink document delivery
- Manpower development, especially graduate librarians (MLS)
- Skill development, especially in: leadership, risk taking and decision making, & electronic services & product development
- The latter include the LibLink digital libraries & scholarly publishing initiatives.
What works in regional cooperation and networks?

* Integrate Library initiatives into larger regional projects

* Regional projects succeed if they:
  - show economic/industrial benefits
  - meet unmet needs
  - serve under-served peoples and regions
  - educate and train
  - involve IT at a basic level

* Start with a few high-profile organizations
Fostering Innovation:

* Mini-Conference

* Digital Ideas Club
  Member initiatives

* Innovation Forum
  Brainstorming, Speakers, Literature

* Self-granted initiatives
Cross Fertilization

AISTI
Placements for Scientist / Research experiences

Shared speakers
Shared ideas
Shared projects
Shared contacts

ISTEC

ESIG/NSF
ODU

OAS
UNESCO
Back at the home organization

Faculty education

Regular updates on consortial initiatives

Deciding which consortium for which product

Preparing to cancel e-packages instead of single titles

Evaluation and use statistics / Value-for-money

Help create alternative publishing and archiving systems

Valuing and understanding uncertainty and complexity and ways to manage it
VALUED CHARACTERISTICS IN CONSORTIAL MEMBERS

Relationships is everything

- Letting go. Prepare to dismantle long held beliefs and cherished protocols and procedures.
- Learn from the experience, without feeling persecuted.
- Learn to manage anxiety
- Improvise. Change is generally without precedent thus creativity is the only mechanism to deal with change
- Accept ambiguity and uncertainty, and the lack of closure
- Understand chaos and complexity
- Curiosity defeats fear of the unknown
- Pool your potential - everyone's ideas, insights, knowledge, and experience is needed to find creative solutions and fresh approaches
Contact Information

- **ISTEC**  [www.istec.org](http://www.istec.org)
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