



Asia-Pacific
Economic Cooperation

2006/HRDWG/SYM/020

Agenda Item: 19

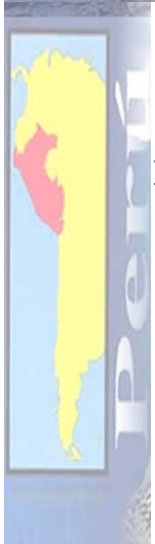
Crystal-CAB Network Experience: Use of Open Source possibilities for Capacity Building

Purpose: Information

Submitted by: Peru



**APEC Symposium on Open Source
and Open Course for E-Learning
Ha Noi, Viet Nam
4 - 6 December 2006**



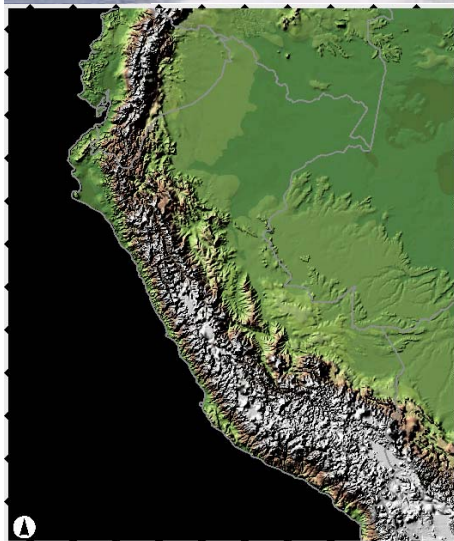
Crystal-CAB Network Experience:

Use of Open Source possibilities for Capacity Building

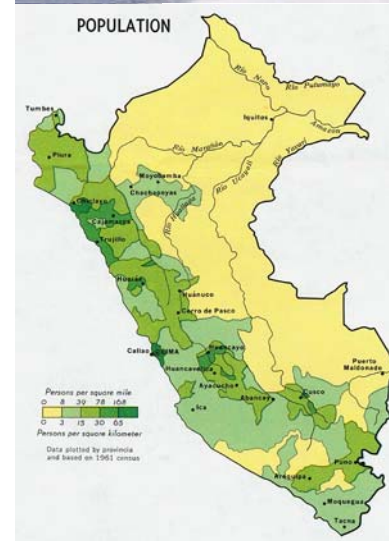
Ing. Norma Vidal Añaños
Projects Coordinator ITACAB



- Area: 1.3 million km²
- Population: 28 million inhabitants
- Capital : Lima (8 million inhabitants)
- Currency : Nuevo Sol
- Religion: Christian
- GDP 2005: US\$ 78.3 billions
- GDP per capita: US\$ 2,900



- **SURFACE: 1.3 million km²**
 - The third largest country in South America (slightly smaller than Alaska)
 - 10% Deserted coast
 - 30% High mountains
 - 60% Tropical rain forest (jungle)



- 65% live in urban areas (17.5 millones) and the remaining 35% (9.5 millones) live in rural areas.
- The highest poverty indexes correspond to rural areas, mainly located in the highlands and the amazon.
- The average annual family income in the rural areas is in the range of US\$ 300-1,500.



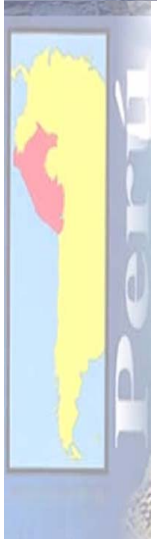
• **Natural resources:**

- Copper, Silver, Gold, Iron ore
- Petroleum
- Timber, Fish, Coal
- Phosphate
- Hydropower, Natural gas



ITACAB, an specialised institute of the CAB – the Andres Bello International Agreement, is based in Lima, Peru.

- CAB includes 10 Latin American countries and Spain. Its mission is the integration of member countries in the fields of education, culture and science and technology.
- ITACAB’s mission is to include in the development process excluded populations through technological extension, network formation and e-learning.
- Current emphases focus on technical training, non-formal education and platforms for technological transference.



- Started in 4 Andean countries (Bolivia, Ecuador, Colombia and Peru) as an exchange service of didactical materials for technical training.
- Early e-learning components: a web portal, virtual forums, digitalised materials.
- Currently, 8-country network for the development of methodological processes and didactical means for in-service and pre-service technical training.
- It has grown into a socially constructed network, a greater complexity of agreed tasks and a consolidated e-learning community (capacity building <=> e-learning processes).



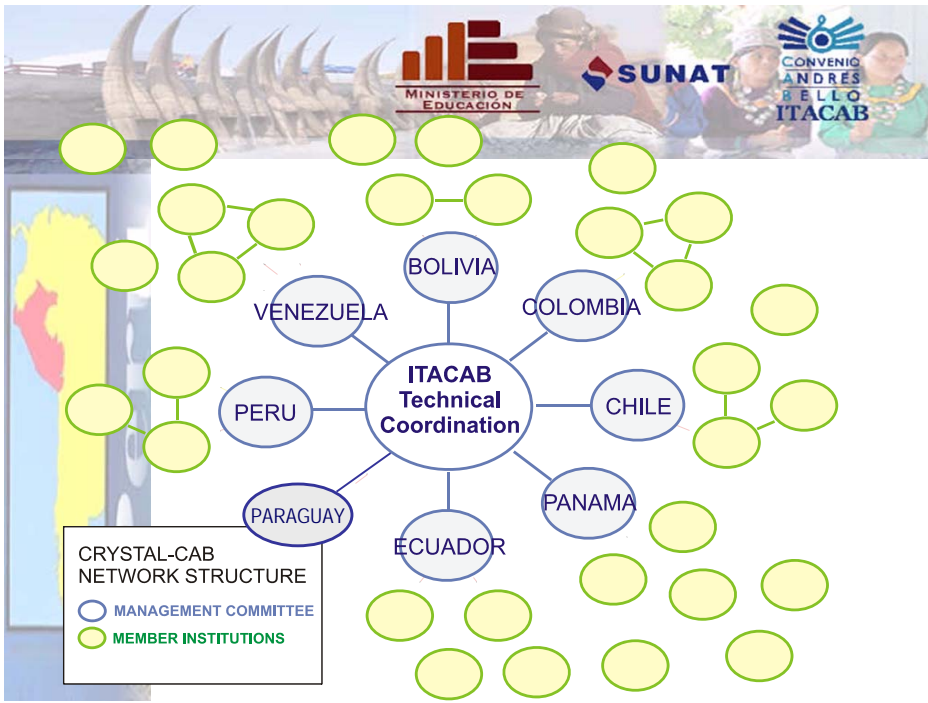
MEMBERS OF THE CRYSTAL-CAB NETWORK

70 Institutions

- Policy makers
- Operational bodies of national systems for technical training
- Professionals within the systems

FINAL USERS

- Beneficiaries of formal and non-formal technical training programmes



KEY ACTIVITIES

Network Implementation

1st. International Meeting - 2000

Members Meetings

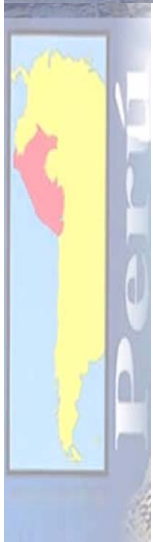
Meetings of Link Institutions

KEY ACTIVITIES

Exchange Workshops

Training Workshops

KEY ACTIVITIES



Why moodle?

- ✓ *Crystal CAB network offers competence based courses, Moodle is a modular system useful for education under this focus.*
- ✓ Networking requires tools for collaborative work, Moodle is based in constructivism and cooperative principles.
- ✓ Crystal CAB Network has different kinds of stakeholders: policy makers, teachers, researchers, small-enterprises promoters; Moodle can be used for different users.
- ✓ Our institution has small informatic support and infrastructure, Moodle is management-friendly, easy maintenance and updating, with low administrator involvement
- ✓ Our network needs to answer to emerging interests, Moodle has an easy interface to create several kinds of courses.
- ✓ Different users need similar courses, Moodle has the possibility to maintain in stock all the educational material used.
- ✓ Crystal CAB network users have different levels of competencies in ICTs, Moodle has a friendly platform for teachers and students.
- ✓ In non-commercial institutions, Moodle as an Open source, is a good solution.



E-learning



**Courses for
CRYSTAL-CAB
Network
Members**



E-learning



Nombre / Apellidos	Ciudad	País
 Raúl Ernesto Elgueta Riquelme	Temuco	Chile
 Jhon Fredy Rodríguez Molina	Cali	Colombia
 Gloria María Morales Chávez	Lima	Perú
 Verónica Fidelia Canales Espinoza	Lima	Perú
 Marco Antonio Pinedo Salazar	Lima	Perú
 Marco Palomino Díaz	Trujillo	Perú
 José Luis Vidal Roncal	Lima	Perú
 Roxana Paola Bazán Becerra	Lima	Perú
 Ximena Elizabeth Villegas Parreño	Quito	Ecuador
 Hilda Judith Tapia García	Quito	Ecuador
 Paola Alexandra Rego Rahal	Bogotá	Colombia
 Frida Elena Melgar Sheen	Lima	Perú
 Guadalupe Villota	Quito	Ecuador

Example of List of participants



Crystal CAB Virtual CONSULTATION



ITACAB / cursosvirtuales /

ASESORÍA: Elaboración de Materiales Didácticos por Competencias Ud. está en el sistema como Norma Vidal - Coordinadora. (Salir)

ITACAB
 >> ASESORA.MACOM

Personas

Participantes

Actividades

Foros
Recursos
Tareas

Administración

Activar edición
Configuración
Editar información

Diagrama de temas

ASESORÍA MACOM

RED Crystal-CAB



Pautas para participar en la Asesoría
 Objetivos
 Novedades

Novedades

Añadir un nuevo tema...

3 de may, 17:25
Norma Vidal - Coordinadora
Bienvenidos a la Asesoría Virtual MACOM. más...
Temas antiguos ...

Usuarios en línea

(últimos 5 minutos)
Norma Vidal - Coordinadora



Contribution of CRYSTAL-CAB network to local/national and regional e-learning activities (1)



- a qualification: we do not intend to produce “e-learning experts” but rather “training experts with expertise in capacity building and e-learning”.
- a thematic component for capacity building has proved to be effective in design and results:
 - enhanced experience and knowledge in technical training through access to better quality materials, methodological processes, didactical means and tools.
 - collaborative work and quality assurance provide added quality to e-learning processes: agreement on pedagogical issues, didactical design, content development and technology choices have led to participatory design of the virtual courses.
 - enhanced operative capacity of member institutions for local and regional intervention has been achieved: technological transference, adaptation and innovation for Small and Medium Enterprises has improved.

Contribution of CRYSTAL-CAB network to local and regional e-learning activities (1)

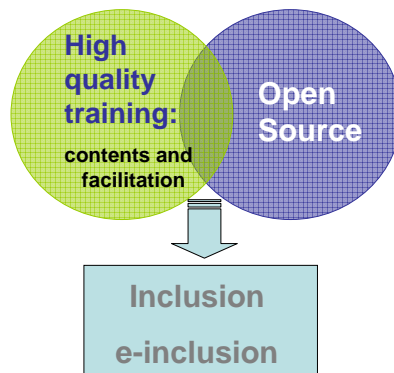
- the e-learning perspective is also strengthened through the network's information system, virtual forums, chats and specially virtual courses that allow for effective usage of available information, best practices and consultation.
- the presential component of the network activities suggests an approach that bears similarity with the "blended learning" modalities.

E-learning for inclusion

Our objective is:

- To offer new opportunities for quality education and training using ICTs, to the teachers and trainers with difficulties of access due to economic, social and geographical barriers.

Open source is a powerful and enabling medium in educational processes for inclusion and e-inclusion



Thanks,

Norma Vidal

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LIMA – PERÚ
Tel. (511) 225 1554

Crystal CAB Network Experience: Use of Open Source Possibilities for Capacity Building

Norma Vidal-Añaños, Projects Coordinator of ITACAB (Institute for the Transference of Appropriate Technologies for Excluded Populations), Convenio Andres Bello

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Who we are as an institution

ITACAB is a specialised institute of the Convenio Andres Bello (CAB), an intergovernmental agreement that comprises 10 Iberoamerican countries (Bolivia, Chile, Ecuador, Colombia, Cuba, Mexico, Panama, Paraguay, Peru, Venezuela and Spain) that pursue integration in the fields of education, culture and science and technology.

ITACAB is based in Lima, Peru and has worked over the last twenty years initiatives that bear on the relationship of education and scientific-technological literacy. This has led to an emphasis on technical and vocational training, technological learning and non formal education as they relate to the inclusion in the development process of excluded populations and the various national or regional platforms for technological transference existing in the member countries.

In the last five years this has been carried along with increasing attention to the utilisation of ICT, the implementation of networks and the relationship of technological extension and e-learning, as well as explorations of what the knowledge or information society might entail for large populations affected by poverty.

Our experience with CRYSTAL-CAB Network.

The CRYSTAL-CAB initiative started the year 2000 when the German Technical Cooperation –GTZ and the Andres Bello Agreement –CAB started a service for exchanging didactical materials for technical training in 4 Andean countries (Bolivia, Colombia, Ecuador and Peru), hence the initial name: Crystal Andino. The initiative echoed, at the Andean regional level, a GTZ initiative that had its counterparts in Asia and Africa.

After a successful first phase that included the establishment of a network of member institutions in four countries, the setting up of an exchange service for hundreds of didactical materials, the implementation of a quality management mechanism for the materials presented by the member institutions and the institutional building of the national nodes, a second phase ensued that contemplated the growth to a total of eight member countries of the CAB, adding Chile, Panama, Paraguay and Venezuela to the initial four.

Although the first phase had already started the utilisation of ICTs through digitalisation of technical didactic materials, the setting of participatory virtual forums and their display on the web portal, the second phase grew in depth and scope.

Beyond a network for the exchange of quality materials for technical training, the second phase of the experience embarked on the strengthening of a network that would service its members through access not only of materials but to methodological processes and didactical means for in- and pre- service technical training. It entailed the full recognizance of a network that had socially constructed itself towards the accomplishment of agreed tasks, the growing complexity of the tasks planned and the consolidation of a learning community. Added to the fact that a larger number of countries would participate, it was deemed appropriate to take more decisive steps in strengthening our capacity building components and the enhancement of the e-learning processes of the network.

The greater role of the e-learning component also seemed well suited to better face the participation of a larger number of countries and institutions, the practical and financial limitations for continuous collective work in conditions of co-presence, and the integrationist mission of ITACAB in pursuing the construction of common policy formation. The progressive accomplishments of the approach implemented in the second phase have gained the recognition of GTZ that identified the experience as a possible intervention model for other world regions.

According to this background experience, we present some basic traits of the CRYSTAL-CAB network:

- The members of the network are institutional, and the participant persons are the training experts of the institutions
- The member institutions are of different kinds: decision makers in education and science and technology sector units, academia, operative institutions involved in technical training (NGOs, co-operation projects, training institutions)
- The network CRYSTAL-CAB is currently composed of 70 institutions in 8 countries
- The current network activities have incorporated: groups of collaborative work, virtual forums and virtual courses. There is an intranet for communication and exchange amongst specialists of member institutions. They have allowed for the development of greater institutional and individual experts' competencies as shown in changes in the institutional practice of member institutions.
- The network institutions are also part of national chapters or nodes that gather nationally and prioritise some tasks to be taken to the regional level.
- Some network institutions are themselves nodes for other training networks. In this sense the CRYSTAL-CAB network is also a network of networks.
- The network as a learning community carries out several joint work: development of quality standards of methodological processes for technical training and development of quality standards for didactical means.
- The network has developed a methodological approach for the design of virtual courses, so that several courses are in progress: curricular design, elaboration of didactical materials, evaluation and others under the competency based approach.
- A CRYSTAL-CAB Quality Seal has been instituted and the Commission awards it to the works that have been approved.
- Besides the services accessible to member institutions, there is open access through the ITACAB portal to material for technical training through more than 200 works online, as well as over 500 works in hard copy.
- The analysis of hits in the portal shows that 6 000 direct users have benefited in the first phase through training, didactical materials and methodologies. In the second phase a sample of 12 institutions mention having a average of 100 persons in their own training programmes to have accessed to our materials, and 25 000 direct users have benefited.
- In organisational terms, the CRYSTAL-CAB network is composed of a technical secretariat based at ITACAB, the national nodes and the institutional members in the various countries.
- One must not lose sight of the fact that the e-learning perspective (information system, virtual forums and courses) runs parallel to the yearly implementation of presencial, face to face, international seminars and workshops on network related topics. The psychological and social import of theses events can not be overlooked.

Use of Open Source in Crystal CAB Network

We initiated our e-learning services in 2003 with a property platform and we migrated to the the Open Source "Moodle" in 2004.

Why we selected Moodle

- Crystal CAB network offers competence based courses, Moodle is a modular system useful for education under this focus.
- Networking requires tools for collaborative work, Moodle is based in constructivism and cooperative principles.
- Crystal CAB Network has different kinds of stakeholders: policy makers, teachers, researchers, small-enterprise promoters; Moodle can be used by different users.
- Our institution has small informatic support and infrastructure, Moodle is management-friendly, easy maintenance and updating, with low administrator involvement.
- Our network needs to answer to emerging interests, Moodle has an easy interfase to create several kinds of courses.
- Diferents users need similar courses, Moodle has the possibility to mantain in stock all the educational material used.
- Crystal CAB network users have diferent levels of competencies in ICTs, Moodle has a friendly platform for teachers and students.
- In non-comercial institutions, Moodle as an Open source, is a good solution.

In our platform we offer:

- Courses for CRYSTAL-CAB Network Members
- Courses for users of others institutions
- Crystal CAB Virtual CONSULTATION

Contribution of CRYSTAL-CAB network to local/national and regional e-learning inclusion.

Our goal is to offer new opportunities of quality education and training using ICTs, for teachers and trainers, with difficulties of access due to economic, social and geographical barriers.

We do not intend to produce "e-learning experts" but rather "training experts with expertise in capacity building and e-learning".

Open source is a powerful and enabling medium in educational processes for inclusion and e-inclusion.

Thematically, the members wealth of experience and knowledge in technical training has increased through greater access to better quality materials, as well as methodological processes, didactical means and tools. The collaborative work and quality assurance processes of the network have also provided added quality to the e-learning processes: discussions and agreements on pedagogical issues, didactical design, content development and technology choices have led to a participatory design of the virtual courses.