Jaime Puente
Senior Program Manager, Latin America
External Research & Programs
Microsoft Research

Ignacio Casas Raposo
Profesor Tecnologías de Información
Pontificia Universidad Católica de Chile

Tom Healy
Director, International Academic Programs
External Research & Programs
Microsoft Research

www.laccir.org
What We'll Talk About

- A quick look back
- Progress in the Virtual Institute in the last year
- The last Virtual Institute RFP
- Overview of the selected RFP projects
- The new Virtual Institute RFP
- A look forward

Microsoft Research and LATAM
History since 2003

- For the past five years MSR has collaborated with LATAM research universities to:
  - Help raise the visibility and importance of academic research in Latin America
  - Facilitate connections to the worldwide research community
  - Build research capacity, visibility, and impact
Latin American Academic Research Initiatives

- Sponsoring Request for Proposal (RFP) research projects
- Arranging Microsoft Researcher talks on LATAM campuses
- Hosting Interns and Fellows in the MSR Redmond lab
- Organizing the Annual Microsoft Research Academic Summits
  - 2005 Brazil; 2006 Mexico; 2007 Chile; 2008 Panama
- Launching the Latin American "virtual institute"

Since Last Year
Goal:
Stimulate Latin American academic collaborative research in ICT as an enabler of economic and social development

Financially supported by Microsoft Research, $1.1 M over three years

Implemented with PUC Chile / University of Chile and universities throughout Latin America.
Collaboration with IDB and OAS.
The following "Spoke" universities have joined the Federation:
1. Universidad de la República, Uruguay
2. Tecnologico de Monterrey, Mexico
3. Pontificia Universidad Católica de Chile
4. Universidad de los Andes, Colombia
5. Universidad de La Habana, Cuba
6. Universidad de Costa Rica

The Federation is working together with the Inter-American Development Bank (IDB) and the Organization of American States (OAS) to:

- Advance the research agenda in Latin America.
- Increase research opportunities for faculty and graduate students.
- Increase the capacity and visibility of the Latin American research community, both within the region and worldwide.
Another Important Partnership
FAPESP – Brazil

- MSR has established a related project with FAPESP: (Fundação de Amparo à Pesquisa do Estado de São Paulo) -- the largest state scientific funding agency in Brazil, located in the State of São Paulo.
- MSR-FAPESP jointly funded academic Research RFP in the State of São Paulo.
- The first five projects have been selected.
- A new RFP has been announced for the State of São Paulo.
- More information at http://www.agencia.fapesp.br/

The Organizational Structure of the Federation

Joint Steering Committee and Advisory Board
Evaluation of Research Proposals
Dissemination of RFPs
Execution of Collaborative Research Projects
The "Hub"
Responsibilities

- Establish the Latin American Collaborative Research Federation as a whole:
  - Collaborate with member universities from all the regions of Latin America and the Caribbean
  - Establish a Joint Steering Committee (JSC) including members from the universities, and Microsoft Research.
  - Establish an Executive Director for the Federation and administrative support
  - Host meetings

- Launch Research Projects

- Develop the Virtual Institute Technology Infrastructure

The Spokes
Contributions to the Federation

- Lead collaborative research
- Submit proposals in response to Federation RFP
- Collaborate with the HUB in Federation initiatives
- Participate in virtual community activities
- Promote collaborative research in its country/region
- Report & disseminate project results (Journals and Conference Papers)
- Attract more research resources (funding and other support)
The Steering Committee Activities

• Work together to create Requests for Proposals for research projects
• Discuss and launch various programs in support of the Federation objectives; for example:
  • Workshops
  • Internships
  • Collaborative programs
• 2 meetings have been held:
  • March 26-28 in Chile
  • This past Tuesday in Panama.

Collecting Data A Foundation for Support

• Collect Statistics
• CS Education
  • PhD programs
  • Number of students / graduate
  • Number of professors with PhD studies
• Research Funds
  • Number of international projects (and grants amounts)
  • Available funds (focus, restrictions, total amount)
• Publications
  • Journal and conference papers
Latin American and Caribbean Collaborative ICT Research Federation (LACCIR)
A “Virtual Institute”

First RFP Process (2007-2008)

LACCIR Virtual Institute
RFP Basic Requirements

1. High Quality Research (*Indexed publications*) and ICT Applications for Development
2. Collaboration: At least two different LAC Countries and one Spoke.
3. Matching Funds Potential
LACCIR Virtual Institute
Why collaboration?

CS/CE ISI Publications 2000 2006

LACCIR Virtual Institute
Why collaboration?

CS/CE Publications 2000 2006
Addressing Latin America and Caribbean priority Social and Economic Challenges through advancing ICT Research

**US$ 250,000 MSR grant**

- **Call for Papers:** September 27, 2007
- **Deadline for Submission:** November 28, 2007
- **Result Announcement:** March 10, 2008
- **Grant distribution:** May 30, 2008

Winners: 5 out of 23 proposals presented to the RFP

**LACCI R First RFP Process in numbers**

- **23** Proposals Submitted
- **215** Researchers Involved
- **29** Institutions Involved
- **14** Countries

**5 Winner Proposals:**
- **23** Researchers Involved
- **12** Institutions Involved
- **7** Countries
- **4** ICT Application areas covered
  - Education, Productivity Chains, e-Government and Healthcare
LACCIR First RFP Process in numbers

LACCIR RFP001 2007. Participation by Country

- Dominican Republic: 2%
- Ecuador: 2%
- Paraguay: 2%
- Puerto Rico: 2%
- Chile: 23%
- Mexico: 23%
- Brazil: 9%
- Uruguay: 13%
- Argentina: 13%

LACCIR First RFP Process in numbers

LACCIR RFP001 2007. Participation by ICT Application Area

- Agriculture: 11%
- Productive chains: 11%
- Health care: 17%
- Wireless connectivity: 6%
- E-government: 6%
- Education: 39%
- ICT resources for the disabled: 5%
Overview of Projects

LACCIR RFP Winner Proposals

<table>
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A Digital Workbook Tool to Support Asynchronous Collaboration

Luis A. Guerrero\(^1\), Cesar Collazos\(^2\)

\(^1\) Department of Computer Science, Universidad de Chile
\(^2\) Systems Department, Universidad del Cauca, Colombia

Background

- Every day more students are using Laptops or Tablet PCs as a substitute for their traditional notebooks
- Students need to interact with professors, instructors and other students
- Problem: Usually students need to share digital data (annotations, documents, papers, images, etc.) in an easy and fast way
Our proposal

- To develop a digital workbook on Tablet PCs
- To share and synchronize student’s digital data objects

Synchronous work: sharing data objects

Asynchronous work: synchronizing data objects

Final objective: to improve learning through collaboration
Methodology

- The digital workbook will use OneNote 2007 services
- The digital workbook will extend Conference XP platform in order to integrate asynchronous work
- The tool will work connected to a Conference XP archiver
- The tool will work also connected to other peer (TabletPC)

Previous work

- We developed an application called MOCET (Mobile Collaboration Evaluation Technique)
- This application runs on Laptops, Tablet PCs and PDAs
- The tool was used in Software Engineering courses to support evaluation processes
LACCIR 1-RFP Winner Proposals

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JARDIN: Just an Assistant for Instructional Design

Partners:
- UdelaR, Uruguay (Regina Motz)
- UNR, Argentina (Ana Casalis)
- UFRGS, Brasil (José Palazzo)
- UEL, Brasil (Angélica Brunetto)
- ESPOL, Ecuador (Xavier Ochoa)
- UNAM, México (Miguel Pérez Alvarez)
Motivation

Student
- Style of Learning
- Navigational preferences
- Acquired knowledge
- Etc.

searches

Learning Objects

Courses

LOR

Information about Student's Cultural Aspects

Learning Objects in Latin America and Caribbean

- LO Repositories
- Federation of LO Repositories (FLOR)
- Tools for creation of LO (AdaptWeb)
- Tools for search LO (Red EDUCA)
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Collaborating in Disaster Relief Efforts

- Universidad de Chile
  - José A. Pino

- Universidade Federal do Rio de Janeiro
  - Marcos R. S. Borges
Knowledge Exchange Network

CBRJ -> UPV -> CBS

UV -> OSU

SAMU

ULisbon

GRECO -> CARL

Emergency Life Cycle

Prevention - Response - Investigation

Preparedness - Treatment - Recover

Usually, a very short period

Collaboration Team Effort
Real Example

Shared Information

[Diagram showing information flow between First Responders, Command Post, Remote Experts, and additional shared information.]
Providing Information to First Responders

Application Example
### Collaborating in Disaster Relief Efforts

- Universidad de Chile
- Universidade Federal do Rio de Janeiro


### LACCIR 1-RFP Winner Proposals

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Smart Phones and Ambient Displays to Support Collaboration in Hospital Work

- Jesus Favela, CICESE, Mexico
- Sergio Ochoa, Universidad de Chile

Informal Communication in Hospitals

- Hospital Work
  - Intense mobility
  - Task fragmentation
  - Collaboration and coordination

- Informal Communication used to:
  - Coordinate activities
  - Collaborate with colleagues
  - Access resources
Field Study

- Workplace study
  - Public mid-size hospital
  - 10 medical workers
  - 118 hours of observation

<table>
<thead>
<tr>
<th></th>
<th>As per day</th>
<th>Total time</th>
</tr>
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<tbody>
<tr>
<td>Resident physician</td>
<td>06:59</td>
<td>69:50:00</td>
</tr>
<tr>
<td>Physician</td>
<td>05:48</td>
<td>48:00:00</td>
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Results

- Hospital workers have, on average, 50 interactions per day
- 56% of interactions happen due to opportunistic or spontaneous encounters (95% are casual)
- Informal interactions often involve sharing (27%) or exchanging (10.5%) documents
- 10% of potential intended interactions are unsuccessful
- Physicians spend almost 10% of the working shift in hallways where they hold meaningful encounters
**Motivation**

- Mobility enables co-located interaction
- Artificial proximity is not an option for hospital work
- Breakdowns associated to informal collaboration
  - Interruption of interactions
  - Information generated during the interaction is not recorded
  - Missed opportunities for collaboration

**Supporting co-located informal interaction**

- Context estimation (location, availability)
- Awareness for potential collaboration
- Seamless information transfer
- Remote control of heterogeneous devices
- Capturing collaboration outcomes
The next RFP

LACCIR: Future RFP Processes

**Second Request for Proposal:**
- Announcement: May 14th, 2008.
- First Date for Submission: June 23rd, 2008
- Last Date for Submission: September 22th, 2008.

**Third Request for Proposal:**
- Last Date for Submission: September, 2009.
Looking Forward

Announcement: vSTIC
Virtual School Technology Innovation Center
www.vSTIC.com (Mid-2008)

Goal

Provide a virtual environment where top educators can collaborate towards a better usage of technology in the classroom.

Financially supported by Microsoft.
Implemented with PUC Chile / University of Chile
Collaboration with Intel and other Microsoft partners.
Conference XP

- Client-Server Platform that runs on Internet or Internet II
- Allows:
  - Multipoint Videoconferencing
  - Distributed Presentations (PPT)
  - Videoconference Recording / Retrieving
  - Share resources (repository)

Conference XP (CXP)

CXP Server
CXP Archiver
CXP Venue
CXP Client
Community
Conference XP

- Thesis Defenses
- Virtual Communities
- Projects Meetings
- Presentations
- Classes

Microsoft Research Internships
Establishing connections

- Interns
  - 3 months in Microsoft Research Redmond lab
  - Open to Masters and PhD students
  - Expenses paid
  - Final Selection by Microsoft Researchers
- Fellowships
  - PhD only
- LACCIR 2008
  - Applications open to all universities in LATAM
  - LACCIR – first tier selection
  - Microsoft Researchers – final selection
- 10 (Interns/Fellows) available
LACCR Virtual Institute – Summary

- RFP Projects
- Internships & Short Stays
- Video Confs & E-Learning
- Workshops

Associated Initiatives:
- Unlimited Potential

Please, Get involved!

- The Virtual Institute
  - [http://www.laccir.org/](http://www.laccir.org/)
  - [http://www.laccir.cl](http://www.laccir.cl)
- External Research worldwide RFPs
  - [http://research.microsoft.com/erp/](http://research.microsoft.com/erp/)
Example of a slide with a subhead
  - Set the slide title in “title case”
  - Set subheads in “sentence case”
  - Generally set subhead to 40pt or smaller so it will fit on a single line
  - The subhead color is defined for this template but must be selected.
PowerPoint Guidelines

- Font, size, and color for text have been formatted for you in the Slide Master
- Use the color palette shown below
- See next slide for additional guidelines

Demo Title

Name
Title
Group