## Faculty Summit 2010

Guarujá, Brasil | May 12 – 14 | In collaboration with FAPESP

## BUILDING THE FUTURE OF LATAM INFORMATION AND COMMUNICATION TECHNOLOGIES

Genoveva VARGAS SOLAR, PhD.

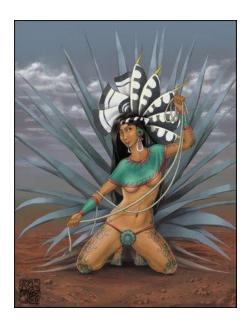
SMCC - REDTIC, Universidad de las Américas Puebla

**LAFMIA-CNRS (UMI 3175)** 

Genoveva.vargas@imag.frm, http://vargas-solar.imag.fr

#### THE BEAUTY AND THE BEAST

- Few language diversity, same background, similar history, similar social problems, similar requirements and expectations
- Why is it so difficult to empower LATAM as one integrated entity?



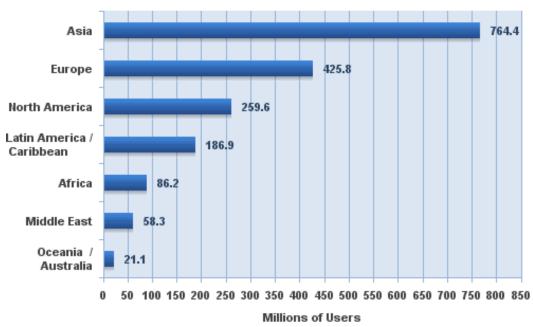
#### ICT GLOBAL MARKET

- ICT is an important and promising market
  - + 6,3 % en 2007, 5,5 % in 2008 and 5,2 % expected in 2009
  - Global amount of 2 238 millions of K€ in 2007, and 2 360,3 millions of K€ in 2008
- Software tools and services market represents 917 millions of K€



#### **OPPORTUNITIES FOR LATAM**

### Internet Users in the World by Geographic Regions - 2009

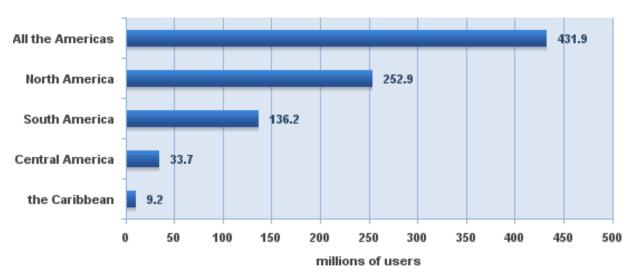


		POPULATION	INTERNET USERS	PENETRATIO N	GROWTH 2000-2009
	LATAM AND CARIBEAN	586,662,468	186,922,050	31.9%	934.5 %
	ASIA	3,808,070,503	764,435,900	20.1 %	42.4 %
	EUROPE	803,850,858	425,773,571	53.0 %	305.1 %
0	NORTH AMERICA	340,831,831	259,561,000	76.2 %	140.1 %

Source: Internet World Stats - www.internetworldstats.com/stats.htm Estimated Internet users are 1,802,330,457 for December 31, 2009 Copyright © 2010, Miniwatts Marketing Group

### **OPPORTUNITIES OF LATAM**

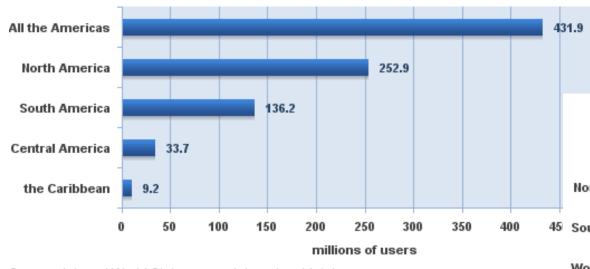
#### Internet Users in the Americas Geographical Distribution - 2009



Source: Internet World Stats - www.internetworldstats.com 446,483,050 estimated Internet users in the Americas for year-end 2009 Copyright © 2010, Miniwatts Marketing Group

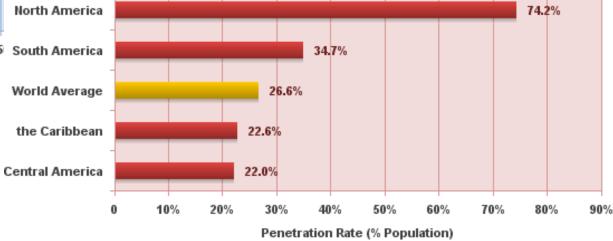
#### **OPPORTUNITIES OF LATAM**

#### Internet Users in the Americas Geographical Distribution - 2009



Source: Internet World Stats - www.internetworldstats.com 446,483,050 estimated Internet users in the Americas for year-end 2009 Copyright © 2010, Miniwatts Marketing Group

### Internet Penetration Rate in the Americas 2009 Year-end



Source: Internet World Stats - www.internetworldstats.com
There are 446,483,050 estimated Internet users on Dec. 2009 in the Americas
Copyright © 2010, Miniwatts Marketing Group

#### ICT GLOBAL MARKET

- ICT is an important and promising market
  - + 6,3 % en 2007, 5,5 % in 2008 and 5,2 % expected in 2009
  - Global amount of 2 238 millions of K€ in 2007, and 2 360,3 millions of K€ in 2008
- Software tools and services market represents 917 millions of K€

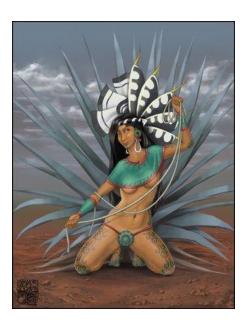






#### THE BEAUTY AND THE BEAST

- Few language diversity, same background, similar history, similar social problems, requirements and expectations
- Why can't we empower LATAM as one integrated entity?



- Postmodern vision: "minorities" are complex entities to be understood in their internal diversity
- Understand the beast and face it in its whole complexity:
   not few language diversity, regions with different economies,
   ecosystems and social realities

Guatemala (52,8%), Perú (35%), Ecuador (9,4%), Panamá (8,3%)



Mayahuel, Borgia Codex, Eduard Seller, Comentarios al Códice Borgia, Mexico, Fondo de Cultura Económica, 1988

### TOWARDS ICT AGENDA IN LATAM

Leitmotif: Computing resources at service of people





Leisure



Health



**Economy** 



Government



**Environment** 



Security

According to the countries internal reality

- Technology is not an industry and economy activator in LATAM despite efforts and actions
- LATAM tends to buy pseudo-solutions from abroad

#### TOWARDS ICT AGENDA IN LATAM: MEXICAN EXAMPLE

#### MEXICO ICT RESEARCH CHALLENGES

- Relevant information for decision making
- ICT for biomedicine: empowering national health
- ICT and education in the XXI century
- Security and transparency in information and services
- Intelligent environments for addressing the problems of big cities
- Knowledge based services for citizens

RedTIC, REMIDEC, SMCC, SMIA

- Provide a long term vision of ICT research
- Concrete evaluation criteria
- Ambitious but possible in the mid and long term
- Attractive and challenging for the community and motivating for society
- Address multidisciplinary problems
- Emerge from a consensus decision of the scientific community
- First workshop: 48 attended/61 invited scientists (3 working outside Mexico), 18 academic institutions

#### METHODOLOGY AND IMPLEMENTATION

- CONACyT networks: contact people in the country that encourage and organize the community
  - RedTIC, <a href="http://www.redtic-conacyt.mx">http://www.redtic-conacyt.mx</a>
  - See details Tomás Viveros García, CONACYT, panel in this summit
- Workshops and get-together meetings animated by networks
  - Challenges and research axes in ICT in Mexico
  - Network CFP: censing groups, leaders and active(ist) scientists
  - Concrete actions: seed projects, working groups, thematic schools
- Aggressive international and industrial relationships actions
  - National global ICT gallery: research, international labs, projects, clusters
  - Extend the gallery to the LATAM region: showrooms in other regions English(Fr) speaking America, Europe (e.g., LATAM ICT stand for ICT EU conference)
  - Contact with industrial ICT clusters in important regions like Guadalajara and Monterrey: workshops with invited observers such as the FP7 chancellors

## LATAM RESEARCH LABS ON TICS: STEP FORWARD PIONEER ACTIONS

OBSERVATION AND EXPERIMENTAL PHASE (COURTISAGE)

PIONEER PHASE (FIANÇAILLES, LONG LAST MARRIAGE)

- Organisation
- Identification of groups and topics

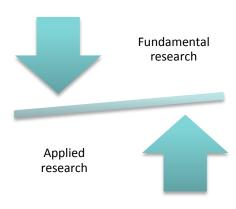
Virtual labs

#### Who is who?

- Research agendas
- Community map
- Learning cooperation

- High level research with hybrid groups
- R & D actions

Research centres



## LATAM RESEARCH LABS ON TICS: STEP FORWARD PIONEER ACTIONS

- Europe@LATAM: research units on research and development challenges
  - Research international units (CNRS, FR): Chile, Brazil, Argentina, Mexico
  - Programs: ECOS-LATAM, DAAD-LATAM under P2P actions, STICAMSUD groups, CyTED (ALICE), FP# (e.g., Euralinet)
  - Human resources: graduate fellowships, dual diploma actions, e.g., F-M doctoral school signed by CONACyT-ANUIES
- English(Fr)-speaking America@LATAM
  - MICROSOFT LABS LACCIR, LAB IN SAO PAULO: observatories, N-N projects
  - NSF and Canada programs

# SCALE PRESENCE AND INTERNATIONAL QUALITY: LATAM R&D ACTIONS

Unbury the mirror (cf. El espejo enterrado, Carlos Fuentes)

- X-RAY of the region: real measures of the "intellectual" critical mass
  - PROJECT 1: Integrate databases of researchers and national and international projects
  - PROJECT 2: censing TIC industry in the region → databases and regional clusters
- Contribute for triggering development and innovation, producing technology, knowledge
  - PROJECT 3: Propose a common ICT program inspired by the FP7 program calls
    - Regional bourses for developing regional challenges (capitalize actions like LACCIR)
    - Human resources: encourage brains actively contributing to the region development, LATAM doctoral common faculties

Thanks to ICT José Martí can catch the boat this time

Let us make his(our) dream come true!

Microsoft® Research
Faculty Summit2010

Guarujá, Brasil | May 12 – 14 | In collaboration with FAPESP