



Editorial - Carlos Casasús Young entrepreneurs in TICAL2014: "TICAL is an amazing event that can take you from being a simple young student, to a character in your entrepreneurial society" The pathway to personalization The experts said... Authors: The backbone of TICAL2014 The voice of the sponsors: "TICAL always gives us the opportunity to meet projects and initiatives, as well as to show our experience and product range to provide ICT solutions" ELCIRA in TICAL2014



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researchers an infrastructure
that allows them to
effectively collaborate
with the global scientific
community.

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Carlos Casasús

President of the
Organising Committee
of TICAL2014

General Director of
CUDI

Chairman of
RedCLARA's Board

Editorial

As many of you might know, in May 26, 27 and 28, we lived the fourth edition of the Conference of Directors of Information and Communication Technology in Latin America (TICAL2014), that was held in the city of Cancun, in the Mexican Caribbean.

TICAL is a space of dialogue in which ICT experts from institutions of higher education of Latin America can gather to share experiences, find solutions to common problems and thereby generate a seedbed of projects for the development of ICT in higher education institutions within the region.

The importance of the event was confirmed when the numbers of the previous meetings were exceeded. In TICAL2014 we surpass the participation record of researchers and of ICT Directors, with 438 attendees from 25 countries. The call for papers had a response of 149 proposals submitted. The 41 papers selected by the Program Committee brought us speakers from 15 countries to present at the event themes such as:

- ICT Solutions for Teaching and Research,
- ICT Management Solutions,
- Governance and ICT Management,
- Infrastructures, and
- Information Security.

In addition, 5 plenary lectures, 13 company presentations, 7 exhibition projects of young entrepreneurs and 2 workshops were carried out.

The event was sponsored by 19 companies that made possible the development of the meeting, and allowed attendees to meet a wide range of products and solutions for university ICT.

As a result of the intense activity registered during those 3 days, strategies and agreements in the field of ICT at regional academic level were developed, among those we highlight:

- The formation of new working groups on issues and action lines identified as relevant to the Community of ICT Directors.
- The continuity of sessions during the whole year that will be given by experts or by a company, they will contribute to the discussion and/or to introduce solutions oriented to problems that are being reviewed within the TICAL community.
- The establishment of strategic partnerships in other regions, that are working in common spaces in terms of niche, as well as in the topics of interest to the TICAL community.
- The creation and maintenance of a repository of materials and of papers of the TICAL community which will allow to collect and preserve the knowledge and the experiences generated in the conferences and in the context of the collaborative work, that will serve to all the community participants.
- The strengthening of the NRENs representatives incorporating to the thematic groups, aiming to make them recognized by the community and, in turn, help them to identify in more detail the problems so they can offer new services to their users.


In TICAL2014 Conference, Mexico established eduoam service for the first time for the domestic and foreign educational community, joining countries that are providing this service through its National Research and Education Networks.

During the Conference there was an important moment to commemorate the tenth anniversary of the establishment of the Latin American Corporation for Advanced Networks (CLARA) in Valle de Bravo, that was the occasion to acknowledge both those who participated in the

signing of the Statutes of our association and those personalities that through their leadership and commitment have enabled us to reach this anniversary.

The presence of many members of the RedCLARA community in Cancun allowed the celebration of the CLARA Ordinary General Assembly, in which the outgoing Board report was approved; a new Board and a new Technical Commission and a new Fiscal Commission were chosen. A CHAINREDS-ELCIRA workshop on Identities was also conducted.

TICAL2014 was definitely a great event that brought our community together and revitalized our interest to continue working together. Now we start planning TICAL2015, for which we are beginning the process of selecting the venue and defining the date. We have a big challenge, but we are confident that building on the achievements of Cancun, TICAL2015 will be even better.

The presentations of the event are available at <http://tical2014.redclara.net/es/presentaciones.html>. 



 **TICAL** | CONFERENCIA **2014**

- 3 days**
- 25 countries**
- 438 participants**
- 17 lecturers**
- 40 papers presented**



Young entrepreneurs in TICAL2014:

“TICAL is an amazing event that can take you from being a simple young student, to a character in your entrepreneurial society”

In the world of academia and networks, the emergence of innovative ideas that come to life in the form of development of programs and applications, ostensibly extends the possibilities of the academic work, from the development of individual research and study, to the broader collaborations. That is why TICAL2014 opened a space for the presentation of important initiatives of young Latin American entrepreneurs. Some of them tells us in these lines which was for them the value of being part of the conference and tell us about some of the future steps of their ventures.

María José López Pourailly

TICAL2014 entrepreneurs who participated in this interview:

- MMaximiliano Picon, Argentina: Media network for teachers and students of journalism.
- José Eduardo Carvajal Teran, Ecuador: Application of remote interaction with the PC through a natural user interface to speed teaching and learning management in classrooms.
- German José Wilfredo Espinoza, El Salvador: Implementation of educational trivia developed for Android devices.
- Carlos Martínez Javier Guel, Mexico: Portal for managing IT projects in the public and private sector.
- Lennon Shimokawa, Peru: Academy of programming with an emphasis on innovative technologies.





Maximiliano Picón, Argentina



José Eduardo Carvajal, Ecuador



José Wilfredo Alemán, El Salvador

Did you have a positive experience in TICAL2014?

Carlos Javier Guel Martínez, Mexico: Of course I did, cause I could participate in the dissemination and collaboration of activities designed for the use of information and communication technology to foster cooperation, exchange and partnership between educational and technological institutions; with the essence strengthen the creativity and the spirit with the vision of supporting higher education.

It was an excellent opportunity to increase my knowledge and technological-instructive skills, to keep the mission and vision of CUDI and RedCLARA, which is to promote and develop the use and innovation of applications and services devoted to the educational environment.

Maximiliano Picon, Argentina: Yes, absolutely. TICAL2014 allowed me to meet many of the technological referents of the leading universities in Latin America, to exchange experiences and identify needs. I could take advantage of the content of the talks and catch up with the advancement of technology in academia.

The experience of representing Argentina with Preenser.com and to give a 3 minutes talk in front of big companies and of the NREN leaders, it was challenging and very rewarding.

José Wilfredo Alemán Espinoza, El Salvador: Attending TICAL2014 was a very motivating experience, I really enjoyed it and I feel that has helped me grow professionally.

One of the most interesting things was to note that in Latin America, higher education institutions are facing similar problems and challenges. Furthermore, the problems were not only shared but we could also observe the different solutions applied to deal with them according to the particular circumstances of each institution and country. Knowing that the education policies of other countries and the benefits derived from being part of advanced networks for research and collaboration has allowed me to expand my vision to the possibilities and tools we have at our disposal.

Being part of the first round of young entrepreneurs was very rewarding, meeting other young people with good initiatives and contributions, and sharing experiences, suggestions and comments, gave me the opportunity of meeting new ideas and establish contacts. This experience helps me to be more confident about the initiatives that we, as young people, can devise.

José Eduardo Carvajal Teran, Ecuador: The experience lived in TICAL2014 was one of the best of my life in a professional sense, because it allow me to meet and know many



Carlos Javier Guel, Mexico



Lennon Shimokawa, Peru

people who thrive in the environment of the ICT and technological development, which gave me a view of the progress in Latin America, in addition I met many important people involved in the area and I did many good contacts.

Lennon Shimokawa, Peru: Definitely. TICAL2014 has been a great opportunity to learn about current trends in ICT. It was very useful for me the session on LiveStreaming. Also, taking advantage of the Conference to visit Cancun was great.

Do you think that introducing your initiative in TICAL2014 will broaden its visibility, scope and application?

Carlos Javier Guel Martínez, Mexico: Yes, because getting the feedback from experts in the field of Information and Communication Technologies as Tony De La Rosa (CISCO), Gustavo Fridman (Microsoft) and Fernando Amaya (Adobe), enables me to verify the effectiveness of the techniques I'm using to convey my business idea as well as to further strengthen the technical aspects of the project; thus identifying a better scope and application in the target sector.

Maximiliano Picon, Argentina: Yes, I'm sure. We are already moving forward with the use of the application to disseminate it within a Colombian university, and we have contacts with

two other universities that were interested in the way in which the platform gives visibility to the work that is carried out within the universities.

José Wilfredo Alemán Espinoza, El Salvador: Undoubtedly, intruding our initiative in TICAL2014 has help me to know different points of view, to recieve suggestions from people with more experience in the area of technology businesses, and to get ideas and criticism that once implemented will contribute to the growth and expansion of the project. Our application was initially designed for Android devices but we received the suggestion of developing it for multiple platforms using other tools, some of the positive comments were that although there are thousands of trivia on many different subjects, the projects approach and the business model is different, and for that it was approved by several participants.

During the conference I had the opportunity to talk with attendees and participants from various countries to which I was able to briefly interview about the different national tests done in their respective countries, and about the impact of the results of these tests on students. In some countries they are giving much importance to certain tests done at a national level, some institutions offer reinforcement classes for these courses, this is a context in which we

can expand the market for our application by creating illustrated questionnaires oriented to the preparation for these exams.

José Eduardo Carvajal Teran, Ecuador: I really think that it helps a lot because the judges together with all the people attending can review and catalog your innovation as well as give you many tips to improve it and be able to start your project. In my case I thought my application was more in the Latin American market, but when I presented it, the judges and the audience in general, were amazed by my innovation and I received many good reviews and that motivated me to keep going.

Lennon Shimokawa, Peru: Yes, the entrepreneurship panel was an interesting space to share experiences with other entrepreneurs in Latin America and to generate networking. The feedback they gave us was very valuable.

Would you recommend other young people in your situation to participate in future editions of TICAL?

Carlos Javier Guel Martínez, Mexico: Yes, because it is a very good way to exchange knowledge and experiences with young people from other parts of Latin America, as well as to establish relationships with institutional bodies that allow a future professional parity, with the aim of contributing to the regional development.

Finally, I want to express to young people that this is a good opportunity to express their business ideas, where you can get feedback from a panel of international stature, thus expanding your view to get a better perspective of your entrepreneurship as well as well as to acquire big audience dialogue skills.

Maximiliano Picon, Argentina: Yes, of course. It is a very rewarding experience and it gives the possibility of meeting people who really understand and know the academia. We must

encourage innovation and entrepreneurship in universities. TICAL can greatly help to strengthen entrepreneurship.

José Wilfredo Alemán Espinoza, El Salvador: I recommend young entrepreneurs to present their initiatives, ideas, projects and works to future TICAL editions, these rounds are of great benefit. They will have the opportunity to introduce themselves to different professionals in Information Technologies and to create links for collaboration, broaden their perspective for the development, commercialization and deployment while receiving criticism, suggestions and comments that will contribute to the growth of their projects.

The context of the conference helps young people to acquire a broader view of the needs in technology applied to education in our region, thus efforts can be targeted to create solutions more attached to reality and with a wider range of application.

José Eduardo Carvajal Teran, Ecuador: Of course, I will indeed recommend them to start now developing ideas and innovation in their countries so they can show this to the world thanks to TICAL. TICAL is an amazing event that can take you from being a simple young student, to a character in your entrepreneurial society.

Lennon Shimokawa, Peru: Iyes, I recommend it, is an excellent opportunity. Thanks to TICAL's organization for opening this space for entrepreneurship.

What will be the next steps of the initiative you presented in TICAL?

Carlos Javier Guel Martínez, Mexico: Based on the comments received from the experts during the workshop, I will work on the technical aspects and I'll make an evaluation of what is offered on the market to integrate all the functionalities that could represent a competitive advantage for the project.



Jóvenes innovadores, TICAL2014

Besides working as mentioned above, I will focus on finding better techniques and communication tools to increase my communication skills and effectively convey my business idea.

Maximiliano Picon, Argentina: We're already working on a new version that allows media to create communities, this means allowing a university to have a site with all the news based on the work of researchers, teachers and students. We want to add new universities that are trying to reach society through scientific and academic news. Those who are interested are invited to write us to the email info@preenser.com.

José Wilfredo Alemán Espinoza, El Salvador: - Finish the beta version of our

application and make it available in the app store.

- Measure the degree of acceptance in the public and according to the feedbacks, implement the necessary adjustments to meet at the greatest possible extent the user experience.

- Complete the remaining categories yet been proposed.

- Present the project to universities and educational institutions offering courses to prepare for national examinations and who are willing to sponsor the project in exchange for making specialized versions of our application available to their students.

- Start the development oriented to other platforms (Web, iOS, Windows).

José Eduardo Carvajal Teran, Ecuador: Honestly, since I returned from TICAL many media such as newspapers, radios and television channels have called me to present my venture in their spaces. I have started to be recognized and regarding my future plans I hope to present my project in a competition for entrepreneurs in a line of research in the new higher education project of my country, Ecuador, called Yachay; I want them to finance my research to continue my project.

Lennon Shimokawa, Peru: We are working 100% devoted to DevAcademy, we are currently working on the platform and our upcoming online courses on software development. 🌐

Descargue los posters de los jóvenes innovadores en:
<http://tical2014.redclara.net/es/innovadores.html>



The Pathway to Personalization

At Desire2Learn, we believe that offering every student an inspiring and empowering environment will help them achieve their full potential. By creating a learning experience that can be tailored to support each individual's own learning style and needs, we can help ensure those students achieve their unique goals. Addressing these challenges, however, requires a singular solution for deploying personalized learning experiences in a scalable and highly accessible way.

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The experts said

José Tam, Director of Information Technology at the Tecnológico de Monterrey, (Mexico), Wim Van Grembergen, Professor at the the Economics and Management Faculty of the University of Antwerp (UA) and executive professor at the Antwerp Management School (AMS - Belgium), and Rubén Aquino Luna, Assistant Director of Information Security in the UNAM-CERT (National Autonomous University of Mexico), were three of the main speakers of TICAL2014. We talk with them about their experience in Cancun. Get to know what they said in the following interviews.

María José López Pourailly



José Tam
Director of Information Technology of the Technological System of Monterrey

Management (CRM); Business Process Reengineering, Application Integration, Service-Oriented Architecture, Information Management and Business Intelligence, and Business Innovation Strategies using IT.

The industries where Tam has expertise are: Education, Financial Services; Consumer Goods; Trade, Manufacturing, Natural Resources, Transportation, High Technology and Telecommunications.

Tam has over 24 years of experience in several areas: Strategic Business Planning and IT, Enterprise Architecture, Customers Relationship

Tam has had the opportunity to develop his career internationally living in 4 countries over 10 years in executive positions in companies of systems integration such as Sil Data and Softtek and for 14 years as Partner of "Consultoría y Managing", Director in consulting business and IT, as KPMG Consulting, BearingPoint, Neoris and IBM Global Business Services.

José Tam holds a Masters in Business Administration at the University ESAN and studied Industrial Engineering at the National University of Engineering in Lima, Peru.

How would you evaluate your experience TICAL2014?

It was a very good opportunity to learn which are the priorities that other universities in Latin America have, and what lessons they have learned from the projects they have run until the Conference.

Before the Conference, what were your expectations about it? Did you meet them or are some of them still pending?

My expectations were satisfied, I was expecting the networking with CIOs of other national and international universities and that happened.

What would you highlight as the most important of your experience in TICAL2014?

The networking with CIOs from other universities. The opportunity to interact with CIOs from USA.

According to your personal knowledge about Latin America, how do you evaluate the use and development of ICT that universities of the region are carrying out?

It's great to know that the different universities are trying to take advantage of the Advanced Internet according to their geographies, and also that we all bring challenges to the use of educational technology and collaboration to improve the experience of Teaching and Learning for Teachers and Students.



Wim Van Grembergen
University of Antwerp, Belgium

Wim Van Grembergen is a full professor at the Economics and Management Faculty of the University of Antwerp (UA) and executive professor at the Antwerp Management School (AMS). He teaches information systems at master and executive level, and researches in IT governance, IT strategy, IT performance management and the IT balanced scorecard. Within his IT Alignment and Governance (ITAG) Research Institute (www.uams.be/itag) he conducts research for ISACA/ITGI on IT governance and supports the continuous development of COBIT and VAL IT.

Currently he is evolved in the development of COBIT 5. Dr. Van Grembergen is a frequent speaker at academic and professional meetings and conferences and has served in a consulting capacity to a number of firms. He has several publications in leading academic journals and published books on IT governance and the IT balanced scorecard. His most recent book "Enterprise Governance of IT. Achieving strategic alignment and value" is published in 2009 (Springer, New York). More information: <http://www.ua.ac.be/main.aspx?c=wim.vangrembergen&n=21902>

How would you evaluate your experience TICAL2014?

I had a wonderful experience at the TICAL conference in Cancun. Highlight was my keynote speech on IT Governance and the discussion I had afterwards with many delegates. I learned from these talks that CIOs of universities are aware of the IT Governance issues and clearly understand that their Board and Executive Management should give more direction to IT. My wife joined me



for this visit and we certainly will never forget the conference dinner and the splendid performance of the mariachis.

Before the Conference, what were your expectations about it? Did you meet them or are some of them still pending?

I was honored when I got the invitation to be one of the keynote speakers at the conference and was happy that I could present my research and thoughts on IT Governance. I also hoped to get an understanding of the maturity level of IT governance within Latin American universities. And during the many conversations with the delegates I got a pretty good idea to what extent the IT Governance lives in Latin American universities.

What would you highlight as the most important of your experience in TICAL2014?

The many contacts I had with CIOs from Latin American universities.

According to your personal knowledge about Latin America, how do you evaluate the use and development of ICT that universities of the region are carrying out?

My understanding is that Latin American university CIOs know that within their organisations there is a clear need for implementing IT Governance and that they are aware that universities should start with an IT Governance project bringing management of the universities closer to IT.



Rubén Aquino Luna
Assistant Director
of Information
Security in
the UNAM-
CERT, National
Autonomous

University of Mexico

Computer Engineer, Assistant Director of Information Security in the UNAM-CERT of the General Directorate of Computer and Information Technology and Communication of the UNAM. Since 1999 is specialized in information security in areas such as detection and incident response, computer forensics, systems for management, best practices and awareness. Since 2009 he is in charge of the Division of Information Security and leads the UNAM Incident Response Team, which provides services to the University and to public and private entities in the country.

He has made computer security expert, coordinated incident response teams, developed information security projects of national importance and has participated as speaker in various national and international forums. He is currently working on an MBA in Information Technology and Management.

How would you evaluate your experience TICAL2014?

My participation in TICAI2014 was a pleasant professional experience, especially for the possibility of knowing the characteristics and dynamics of other institutions of higher education in the region, especially in terms of IT governance and information security.

Before the Conference, what were your expectations about it? Did you meet them or are some of them still pending?

My expectations were to share some of the experience, problems and vision in matters of information security at UNAM, but especially to be

able to know the experience of other universities in this field. My expectations were amply fulfilled.

What would you highlight as the most important of your experience in TICAL2014?

Without any doubt the opportunity to meet peers from other Latin-American universities, to strengthen and establish new links with them not only share experiences but to establish communication mechanisms that can enrich each other's institutions work in different areas of ICT.

According to your personal knowledge about Latin America, how do you evaluate the use and development of ICT that universities of the region are carrying out?

Although I have seen some efforts, and very successful projects and initiatives, I believe we have a significant gap to cover in order to achieve the incorporation of ICT as an enabler to support the main processes of universities. It is a matter of technology but especially of academic practices of administrative management. Overall, I think we still need the ICTs to become a cross member in the activities and in the life of the universities to realize the full potential that they can mean for teaching, research and for culture dissemination. 7

Authors:

The backbone of TICAL2014

149 papers were submitted to the call for papers of the fourth edition of TICAL, the only conference that brings together leaders and Directors of Information and Communication Technologies of Latin American universities. 41 of them were selected and 40 were presented at the Conference carried out in Cancun. Those 40 papers are part of the Proceedings book of the Conference that was published for download in PDF at http://tical2014.redclara.net/doc/TICAL2014_ACTAS.pdf.

We invited all the authors to answer three simple questions in order to tune us into what the 3 days of May 2014 marked by the sign of TICAL meant for them. Five of them accepted our invitation. Get to know them!

María José López Pourailly



Alex Moura

Research and Development Manager of the Rede Nacional de Ensino e Pesquisa (RNP) and Coordinator and Graduate Professor of Networking at the Infnet Institute in Rio de Janeiro, Brazil. Senior Network

Engineer he got his Master in Networking and Information Systems at the Federal University of Rio de Janeiro (Unirio).

Paper presented: MonIPÉ: A service of networks performance monitoring using low cost hardware solutions and virtualization of infrastructure



Oscar Eduardo Motta

Systems Engineer of the University of Ibagué and Master in Management of Information Technologies of the Tecnológico of Monterrey, Mexico. He

is the Coordinator of IT and teacher at the University of Ibagué, Colombia.

Paper presented: From the planning of ICT to the implementation of IPv6 a desired scenario to develop the "Internet of things" at the University of Ibagué Colombia



Jheimer Julián Sepúlveda López

Information Systems Manager, Candidate for Master in Administration and student of the Doctorate in Engineering- Industrial and Organizations at the National University of

Colombia – at Manizales. Colombia.

Paper presented: Motion of Complex Criteria for the Evaluation of Greened Technological Projects



Fernando Alfredo González

Recently graduate of Engineering Systems, he is passionate about data networks and networked systems. Argentina.

Paper presented: U.V Project "UNLAR-VOIP"



Gabriela Bucceri

Academic Systems, Educational Technology, Research and Information Services Projects Director at the University of Buenos Aires. She worked at various universities both public and private. She holds a

degree in Information Systems and is Bachelor of Business Administration from the UBA, University where she also works as teacher. Argentina.

Paper presented: Organizational Structure for ICT at the University of Buenos Aires: From Technical Support to a User Services Center

Was your experience positive during TICAL2014?

Alex Moura: Yes, the experience was positive in TICAL2014. The Conference provided an opportunity to share experiences with other academic networks and solutions suppliers of interest to academic networks and educational institutions. It is also very important the opportunity that the Conference provided to innovative students, giving them time to introduce their projects and get feedback from entrepreneurs experts in investment.

Oscar Motta: Indeed, the chance to validate the development of the technological infrastructure of the university with peers of Latin America and to get feedback based on experience, was very valuable and meaningful. The relationship and discussion with the various participants, coordinators, directors of Technological Areas, allowed defining improvement actions and to rethink projects.

Jheimer Sepúlveda: The experience in TICAL2014 was very positive for me, it was an important contribution to my research process the chance of listening to lectures and presentations, and to receive questions about my work, it is a feedback process that is required in all research development.

Fernando González: My personal experience was really positive at TICAL2014, this is because I had the opportunity to present my project, which in based on both effort and dedication could be recognized. As a young graduate, the experience exceeded my expectations as a professional and also as a human cause I met a fantastic group of people, both organizers, authors and participants of which I got the best memories.

Gabriela Bucceri: Very positive. It allowed me to share with colleagues and other professionals many experiences and common work on issues that are of great interest to my role at the University, such as Information Technology



Applied to Education, TE Governance, Technology Support for Research, etc.

What do you think is the importance of this Conference?

Alex Moura: The contributions to the issues of the role and the work of the Directors of ICT in Latin American universities were very important, and TICAL was confirmed as a scenario that strengthens the continuous improvement of the institutions and the academic community, which draws on the experiences and knowledge initiatives that are exposed by the same universities, providing significant and unprecedented solutions in higher education institutions from the area of ICT in all areas of university life.

Oscar Motta: Generating community. We are scholars, foremost and we must design common plans, we need to validate experiences, make agreements and, of course, to support the institutions in meeting their strategic objectives.

Jheimer Sepúlveda: This conference is important because of the experience and work sharing of the representatives of different universities in the world, with totally different characteristics; in addition, it is interesting to know the different points of views on the various papers, questions and contributions that support research.

Fernando González: For the educational environment related to ICTs, the event represents one, if not the most important, Latin American computing conference. Therefore, its importance is undeniable. However, for the rest of the thematic areas of the university, and I speak mainly from my local and personal experience, it is not yet known.

Gabriela Bucceri: ICT professionals who are working in educational institutions, are facing numerous and similar problems and challenges both in our day to day operations as on the strategic decisions we are required to take to accompany the institutional objectives. It is very valuable to have a space like TICAL where we can share our own experiences and learn from those

of others, interacting with peers and knowing the solutions given to each issue in other institutions. It is also a suitable environment to know the market trends and the developments in the services and technology providers area.

Would you participate in new editions of TICAL?

Alex Moura: Yes, as long as I have the chance to make a relevant contribution to the community. The exchange of information and sharing of experiences is very healthy and enriching for all participants of the research and teaching "ecosystem".

Oscar Motta: Of course, it is essential for the development of higher education institutions to learn about experiences, put in context and give feedback to other institutions. TICAL is the place to discuss technological topics that impact universities, therefore I would participate again and I would also recommend the participation of my peers.

Jheimer Sepúlveda: Yes, I would participate in future editions of this event, because from my perspective knowledge is constructed in society, and these are spaces in which everybody shares, gives their opinions and feedback processes are developed.

Fernando González: Of course it would participate in another call for papers in order to participate in a new edition of TICAL because my last experience was rewarding and gave me an extra incentive to continue developing innovative services to the university.

Gabriela Bucceri: Of course I'll do. The event, both in its 2013 and 2014 editions, has given me a great professional, academic and personal enrichment. I would like to repeat the experience. 🗨️

The voice of the sponsors:

“TICAL always gives us the opportunity to meet projects and initiatives, as well as to show our experience and product range to provide ICT solutions”

A component of great importance in the interaction scenario provided by TICAL to the Directors of Information Technology of the Latin American universities is the sponsoring companies fair, which combined with the demo sessions of their products, and their presentations, allow not only bring their offer to their target audience, but knowing in first hand the needs of the higher education institutions in their area of competence. In TICAL2014 we lived the most powerful experience in business-university relationship that we have experienced so far in the four editions of the Conference. That is why we decided to invite all the sponsoring companies to answer the same three questions, in order to learn how they evaluated the outcome of the Conference; the following are the responses of those who agreed to participate in this exercise.

María José López Pourailly



Adobe Systems Inc.
Nicole Martin, Education
Marketing Manager Latin
America

Did Adobe Systems has a positive experience at TICAL2014?

Whenever there is the option of sharing knowledge and to establish relationship between trademarks and educational institutions, a positive link is generated. As technological provider Adobe is very committed to deliver innovation and value experiences for users (institutions, academics, students, professionals), therefore, it was a great pleasure to be able to participate for the second

year as a sponsor in TICAL and being able to present news from Creative Cloud, Adobe Voice, DPS and to have received comments and concerns from the audience.

Which do you think was the greatest benefit your company received for being part of TICAL2014?

The possibility of relating with the audience. Strengthen relationships and create new ones.

Will your company participate in future editions of TICAL?

We would like to. We would have to know where it will be hosted.



Microsoft
Gustavo Fridman, Microsoft
Solutions Manager for Higher
Education in Latin America and
the Caribbean

Did Microsoft has a positive experience at TICAL2014?

Microsoft's participation in TICAL2014 has been an interesting, enriching and positive experience for several reasons: from the organization, the presenters, the various presentations, parallel sessions with experiences of institutions and the opportunity to share the vision of Microsoft in Education with leaders of the universities in our region.

Higher education has its own challenges and it is not immune to the impact of the current challenges. TICAL2014 was an excellent opportunity to share with business leaders how Microsoft can be a solid technology partner and how it can contribute to the achievement of the main objectives of the institutions of the region.

Microsoft has a holistic approach to education, which is based on solid platforms and technology services, with a strong focus on cloud computing, mobility, social interaction and big data; but it also puts the issues of privacy and security as a priority for customers. This, coupled with thought leadership, partnerships with other highly respected organizations in education and a vibrant partner

Which do you think was the greatest benefit your company received for being part of TICAL2014?

ecosystem, makes us a company able to support the sector in its transformations.

For Microsoft it is invaluable to have the opportunity to present its proposal in education to a qualified auditorium such as TICAL has, and the ability to not only hear the views and experiences of representatives of educational institutions but to engage in lively conversations, share views and get enriching feedback about the challenges

of the institutions in the region.

Will your company participate in future editions of TICAL?

TICAL2014 experience was very important to Microsoft. However, to date we have not completed the analysis of annual events, so it is difficult to define now. However, participation in future editions is certainly something we have consider.

Smart Network Solutions
Sandra Díaz Hoyos, President

Did Smart Network Solution has a positive experience at TICAL2014?

It was a good experience on the quality of the attendees and it was generally good.

Which do you think was the greatest benefit your company received for being part of TICAL2014?

We havent see the results so far,

though in the medium term we expect to have an interaction with the attendees. Obviously it would be ideal to have the database cause that makes easier the possibility of contacting people and start the possible negotiations. In economic terms we have not seen the results.

Will your company participate in future editions of TICAL?

We would like to do so if the cost is not too high. It would be very interesting to have the data base.



Wacom
Patricio Manueco, Latin America
Marketing Manager

Did Wacom has a positive experience at TICAL2014?

Wacom is the world leader in pen-tablet technology with over 30 years of experience in the market. Therefore Wacom decided to participate in the TICAL Conference because it is focused on education where our products are having today increased

acceptance as they are transforming the way we learn and especially how Wacom it is making the platform change from analog communication to digital, that's why it was a positive participation. This event gives access to the education industry at a Latin America level which is also very positive for the brand. We were able to meet people from different countries who are interested in adopting Cintiq 22 screens for their computer



laboratories, such as universities in Colombia and Mexico, which also makes this a positive experience for the brand.

Which do you think was the greatest benefit your company received for being part of TICAL2014?

The greatest benefit was that Wacom introduced to different educational

leaders its technology as part of a solution to the educational problems that universities are facing today.

Will your company participate in future editions of TICAL?

This will depend on the budget and of the result of those opportunities that were generated because of our participation in the event.



PadTec
Eulogio Jiménez, Responsible for the business sector of international markets

Did PadTec has a positive experience at TICAL2014?

TICAL 2014 gave us the opportunity to meet and strengthen relationships with lots of professionals in ICT that are primarily active in research and development in Latin America, and that together make up a community of vital importance to the growth and narrowing of the relations between the various bodies. In PadTec, as providers of optical transmission systems, it is important to strengthen and expand our presence in this community that is responsible for maintaining and developing systems of communication and data transmission. TICAL always

gives us the opportunity to meet projects and initiatives, as well as to show our experience and range of products to provide ICT solutions.

Which do you think was the greatest benefit your company received for being part of TICAL2014?

Meet and strengthen bonds with key ICT professionals within the research and development environments in Latin America and emphasize our vocation to be actively involved with systems and solutions in communication and access.

Will your company participate in future editions of TICAL?

We intend to continue participating in future editions of TICAL.

Alcatel-Lucent
Juan Manuel Cuellar, Field Marketing Executive CALA

Did Alcatel-Lucent has a positive experience at TICAL2014?

It was very positive to have the opportunity to showcase our technology differentiators to a qualified and select audience.

It was very positive to have been able to hear the needs of the higher education market and to demonstrate with our Unified Access laboratory that we have the solution they need, reducing complexity and costs.

It was very positive to have discussed with the competition in a live session in front of the participants, this undoubtedly allowed all attendees to understand how a simplified architecture with value technology can make significant differences in outcomes and cost reduction.

Which do you think was the greatest benefit your company received for being part of TICAL2014?

The power to publicize the benefits of our technology and our architecture to meet the challenges that universities have today.

Will your company participate in future editions of TICAL?

This was the third year in sequence in which we participated in TICAL and it has been a very interesting event.

We get in touch with representatives of the Education area of the main entities in Latin America. We like to contribute and promote knowledge and technological upgrading, and we value this specialized audience that is helping to create the future and the new generation of young people fully "connected".



CISCO
Ricardo Estrada, Sales Manager Local Gov & Higher Ed

Did CISCO has a positive experience at TICAL2014?

There are few forums in Latin America dedicated to Technology and Higher Education. For Cisco Higher Education sector this is one of the most important, and one of the fastest growing, and where we have dedicated solutions for the sector. And this forum allows us to interact with customers directly, to know the trends that are being followed and to expose our ideas. For us it also functions as a thermometer where we can measure how

they see Cisco in different geographies and to get direct feedback about our solutions and services.

Which do you think was the greatest benefit your company received for being part of TICAL2014?

Having direct contact with clients, learn about them, get feedback about how they see Cisco in different countries, and to increase the relationship with the member organizations of CUDI and RedCLARA.

Will your company participate in future editions of TICAL?

Yes.



Wolfram Research
Roy Alvarez, International Development Manager, Latin America & the Caribbean

Did Wolfram has a positive experience at TICAL2014?

Wolfram's participation in TICAL2014 was really positive. The Wolfram technologies are used in all the top universities of the world and in every company that made the Fortune 50 list. Thus, attending TICAL2014 Conference was a very organic stage for tighten up even more our working ties with Latin American universities in the areas of teaching and research. We also shared with directors of information technologies with whom we work in various universities such as the Tecnológico de Monterrey, the UNAM, the University of Costa Rica, the Universidad Pontificia Bolivariana and the University of Cuenca, among many other institutions where there are, either unlimited licensing of our technologies, laboratory networks, individual licenses or training seminars.

Also, in the upcoming months we will be visiting countries and institutions where there has been a great interest in technologies like Wolfram Mathematica, SystemModeler and Wolfram Alpha. Many of these visits are the result of discussions that took place during the Conference. In other cases, our participation in TICAL2014 happily coincided with the one of partners whose busy schedules did not allow us to meet before.

On the other hand, it was very rewarding and valuable to Wolfram the warm welcome and the enthusiasm that students of the Universidad del

Caribe - who were supporting the event - consistently expressed. The students expressed us how the Wolfram Alpha computational search engine enables them to better learn on their assignments, projects and evaluations, while it helps them to solve an equation or to explore the properties of a chemical compound, all step by step (see <http://www.wolframalpha.com/examples/>).

TICAL2014 allowed us to talk with both current and new staff in key IT managements from various universities, as well as to get feedback from students about how our technologies are of great value to their learning process.

Which do you think was the greatest benefit your company received for being part of TICAL2014?

For over 25 years Wolfram has been recognized in the United States and Europe, where many prestigious publications cover our progress and technological and educational ventures. In Latin America educational and research institutions are increasingly adopting our technologies. However, in Wolfram we believe it is essential to get even closer and work together in the various educational reform projects, transfer of skills and research developments. We are looking after not only to support licensing efforts already underway, but to become partners in long-term synergies whose academic impact contributes to establish sustainable linkages in many fields of society. TICAL offers a very interesting forum to connect ideas with efforts.

Will your company participate in future editions of TICAL?

We're waiting to know which will be next year's venue and we are also considering the possibility of formally enhance our participation. We look forward for TICAL2015 registration process.

Palo Alto Networks
Luis F. Fornelli, Country Manager – Mexico

Did Palo Alto Network has a positive experience at TICAL2014?

In general, I think the experience was very positive for Palo Alto Networks. We had the opportunity to introduce our Next Generation security solution to the education sector in Latin America, in addition we did excellent contacts with very good level staff of the different participating organizations.

Which do you think was the greatest benefit your company received for being part of TICAL2014?

The greatest benefit obtained was the "exposure" of our solutions in the education sector, a market in which Palo Alto Networks has been particularly successful worldwide because of our innovative security, visibility and control features that have been very useful for educational institutions around the globe.

Will your company participate in future editions of TICAL?

I think so. Given the excellent experience, I think that it is of great interest for us to continue participating in such events.





Desire2Learn
William Campos, Marketing Specialist – LATAM

Did Desire2Learn has a positive experience at TICAL2014?

I think the experience we had in TICAL2014 was positive for many reasons. We have positioned ourselves at the forefront of innovation and we value building relationships with institutions that are seeking to innovate in the area of education. Many of the educators in TICAL are attending the conference to collaborate, share best practices and learn from other industry experts. The opportunity to meet our current and potential customers face to face and understand the unique challenges of each institution has allowed us to deepen our relationships.

Any event of this magnitude has its areas of improvement and TICAL is not an exception. We had some problems with wifi access and logistical problems on the first day, but they were solved. Another suggestion I would add is to maximize the time and the opportunity we have to build relationships with customers and prospects. In the current format, there is a lot of downtime between sessions and perhaps dedicating a day only for sellers could produce a more efficient resources and participating vendors management. There is always room to improve / grow and we hope to know what does TICAL2015 has for us.

Which do you think was the greatest benefit your company received for being part of TICAL2014?

The biggest benefit for D2L was having the technology leaders in the region in one place. We are currently working on opportunities in Latin America that have been developed from our presence in TICAL. In addition to new opportunities that we have developed in TICAL, we have also been able to cultivate existing relationships. What was shared and talked about how our solutions can support your corporate goals.

Will your company participate in future editions of TICAL?

We look forward to evaluating future sponsorship opportunities with TICAL.

Telefónica
María Juliana Escobar Uribe, Regional Account Manager

Did Telefónica has a positive experience at TICAL2014?

This is our second year participating in the event as sponsors and third in giving our support, it has been a great experience, because as well as knowing in first hand the different views and new strategies in IT and technology that are being carried out in the educational world, we have been able to share ours as partners in the development of them globally. Telefónica has several years adding value to the education sector and we are working on several fronts to accompany all the strategies and demands that universities have for us, we have become a strategic partner of many universities around the world.

Telefónica is making a strong commitment with education, we want to accompany people at all stages of their evolution, from schools to universities, and from there to further training in companies. In addition to implementing our technologies in this process, we believe that e-Learning is the future, or what is the same, giving everybody the possibility of continuing their training process, no matter where they are. We imagine a world without limits on learning, and this idea is impossible if we don't go hand by hand with learning centers. Participating in TICAL helps us to know the situation of Latin American universities and, therefore, to reach them the possibilities of e-Learning to improve their educational offerings.

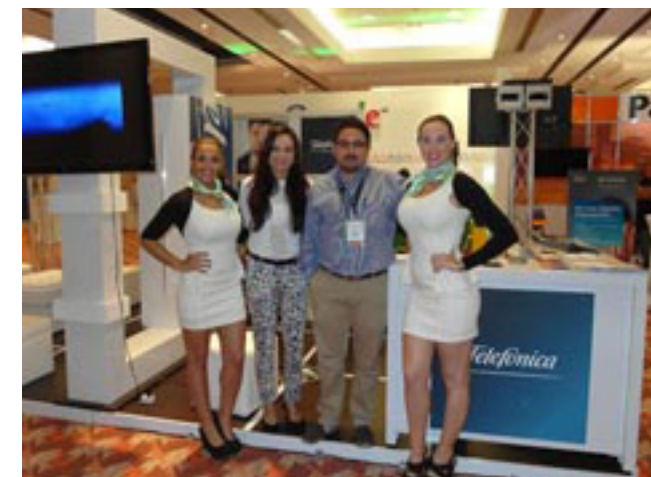
Which do you think was the greatest benefit your company received for being part of TICAL2014?

Telefónica is aware of the changing world we have and therefore is basing all its actions in combining its traditional assets with digital media to bring all the benefits of technology to people. To participate in a meeting like TICAL helps us in our vision of the changing world, joining forces and knowledge to improve through technological innovation, Latin American universities.

TICAL gives us the possibility of having sessions where reflection can be carried out, where there is room for knowledge and analysis, which helps us to better understand the Latin American educational environment in order to adapt our technology solutions to academia.

Will your company participate in future editions of TICAL?

We have had very good experiences in all the TICAL conferences in which we have participated, to encourage debate on innovation in education, to take time for reflection and to share what is the value that Telefónica can bring in the education sector development in Latin America, are values in which we want to continue investing in the future. 7



ELCIRA in TICAL2014

Once more the e-Infrastructure for Collaborative Research Activities between Europe and Latin America Project (ELCIRA) had an outstanding participation in TICAL Conference. An information booth in the exhibition area, the signing of an agreement for the creation of the Latin American Federation of eduroam and a workshop on Identity Management were the activities carried out within the framework of the fourth edition of this Conference.

Tania Altamirano L.

In TICAL2014 the coffee breaks and the spaces between sessions were spaces of intense activity in the exhibition area in which ELCIRA was present to provide information on the objectives and activities of the project.

At the booth, visitors received ELCIRA brochures, RedCLARA folders, the ALICE2 project history book, specifications of services and laptop batteries for cell phones with the ELCIRA logo printed on it. For those who were interested in being part of the workshop for Managing Identity Federations, that took place the following days, there was the possibility of completing the registration form in the booth.

The given space also had a section for demonstrations and a place for meeting between RedCLARA's Communities Management and scientists and researchers participating in the event.

"For the Communities Management, the participation in the ELCIRA booth, both in TICAL as well as in other relevant academic events, represents the opportunity to put a face and a physical-human presence to the work that we carry out and to the services that we offer. This space facilitates meeting our end users and helps in establishing and strengthening networking relationships and collaboration", says Emilia Serafin, RedCLARA's Communities Manager.

Some of the highlighted activities were the on-line demonstrations in which the attendees could learn and use the tools available on the RedCLARA's Communities Portal such as VCEspresso, Big File Transfer and Wiki. These demos were made by members of the RedCLARA technical team, who were responding to the different users doubts.

"Demonstrations allowed to confirm the usefulness of the model used in the work package 5 (WP5) of ELCIRA. The model's ability to add RedCLARA services in the cloud to the group of services already provided by the national networks and to the interoperability with other work packages, proved to be an appropriate scheme to provide services to the academic sector while networks are strengthened national initiatives and the establishment of federations is fostered", said Carlos González, RedCLARA Projects Development Leader.

CLATe first steps

On May 27, at the conclusion of the activities of the Conference, representatives of the Latin American national networks met to initiate the establishment of the Latin American Confederation of eduroam (CLATe).

Due to the widespread and growing use of eduroam in the region (eight countries that have deployed the service as part of the activities of the ELCIRA Project), the objective of the



Confederation is to create a stronger basis for eduroam's governance all around the world.

Responsibilities include choosing the representatives of Latin America to the Global eduroam Governance Committee (GeGC); evaluate service availability in the region and define the strategy to be followed. In addition, members of the Confederation should carry out dissemination activities in Latin American countries through online or face-to-face training.

The agreement was signed by: Julian Dunayevich (Innova | Red, Argentina), Leandro Guimarães (RNP, Brazil), Javier Enrique Lizarazo Rueda (RENATA, Colombia), Gustavo García, RedCLARA's Technical Manager, Danny Silva Bermudez (RedCONARE, Costa Rica), Claudio Chacon (CEDIA, Ecuador), Hans Reyes (CUDI, Mexico) and José Luis Quiroz Arroyo (INICTEL-UNI, Peru).

"Given the growing interest in Latin American countries to adhere to eduroam, I think this is the time for Latin America to organize itself as a

Confederation as other world regions have already done. An eduroam Confederation in the region will facilitate coordination with global eduroam for cooperation and strengthening the service in the region and the world", explains José Luis Quiroz Arroyo.

CHAIN-REDS and ELCIRA teamwork

In order to present the most important concepts related to Identity Management on May 28 and 29 it was held a workshop organized by ELCIRA and CHAIN-REDS projects. The event, which brought together managers and technical representatives of national networks, was attended by 40 participants from 16 countries: ten in Latin America, one from Africa and five in Europe.

The presentations covered topics such as Identity Federations, easy ways to implement an identity provider and the services provided through the cloud. The agenda also included infrastructure and services as eduGAIN and



eduroam, ELCIRA and CHAIN-REDS services and applications, and global communities of identity management as REFEDS.

The material shared in the workshop can be downloaded in the following website: http://www.redclara.net/indico/evento/Identity_Workshop.





as to show our experience and product range to provide ICT solutions" ELCIRA in TICAL2014

voice of the sponsors: "TICAL always gives us the opportunity to meet projects and initiatives, as well as to show our experience and product range to provide ICT solutions"

pathway to personalization The experts said... Authors: The backbone of TICAL2014

take you from being a simple young student to a character in your entrepreneurial society" The

Editorial - Carlos Casarús Young entrepreneurs in TICAL2014: "TICAL is an amazing event that can



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