



TICAL2018 Conference

Digital Transformation in Institutions of Higher Education, Science and Culture

CALL FOR PAPERS

Our society is massively using digital technologies for all kinds of activities. New ICT trends, as well as the development of mobile devices for Internet access, cloud services, the Big Data, the Internet of Things (IoT) and the open movement have made possible what is known as 'Digital Transformation of Organizations', a trend that reaches all kinds of institutions, which are undergoing major changes due to digitalization. Higher Education institutions are not unaware of this process.

The students and also many of the teachers, researchers and employees of these institutions are part of a generation that is being forged in the process of digitization of society; the so-called millennials¹ grew with the Internet, social networks and mobile devices, making intensive use of technology. For this reason they expect an environment where ICTs are part of their learning process, the processes of knowledge generation and the services that the institution must provide.

Following the motto shared by the TICAL2018 Conference and the II Latin American e-Science Meeting - Digital Transformation in Institutions of Higher Education, Science and Culture -, and all that has already been exposed, the call for papers of TICAL2018 will privilege works that present results of experiences in the implementation of ICT solutions and strategies that contribute to the **digital transformation of the university**.

For this call, we invite those interested to present papers on the thematic lines detailed in the following paragraphs, which express the impact generated by ICT in the University to help to its transformation and improvement.

The thematic lines are:

- Collaboration
- Processes improvement
- Customization
- ICT Governance and Management
- Infrastructure and security

✓ **Collaboration**

Implemented ICT solutions that allow and enhance the interaction, communication, joint work, production and transfer of experiences between the different actors of the institutions - external and internal. For example: implemented collaboration platforms (instant messaging, forums, videoconference, contacts, groups, etc.) within an institutional strategy that facilitates the identification of peers and areas of joint work.

✓ **Processes improvement**

Implemented ICT solutions that optimize or transform processes and services related to teaching, research, extension and administration of the institution with the objective of improving learning, generating and transferring knowledge, increasing administrative efficiency; focusing on improving the experience of the user of these technologies. For example: management systems that have improved the user experience, incorporating alerts, mobility and personalization, or have facilitated and made processes more flexible; systems that allow the management of digital documents, such as university diplomas, that accelerate and improve the dynamics and the security conditions of the procedures, which may include the use of blockchain to protect documents; mobile applications that allow new dynamics in the teaching or extension processes, etc.

✓ **Customization**

Implemented ICT solutions that allow to adapt services to the individual needs of different actors in the university community and to improve their performance. For example: data-based learning analysis solutions with machine learning algorithms that customize learning paths according to the particularities of the student (profile, course, learning form, trajectory, among others); solutions that allow the inclusion of people with different skills, etc.

✓ **ICT Governance and Management**

Implemented strategies, methods and good practices that support decision making, process transparency and ICT management in universities to achieve digital transformation. For example: implemented work methodologies for the development of applications; implementation of the ICT governance committee for the development of the project portfolio, etc.

✓ **Technological Infrastructure and Security**

Architectures and technologies implemented to provide the necessary support and security base for the needs and challenges of digital transformation. For example: database systems that support large volumes; federated authentication systems; defense systems with predictive detection; analytical resources, etc.



Technological applications and innovative concepts that incorporate, among others, artificial intelligence (learning machine, deep learning, etc.), data analytics, IoT and blockchain, , to name a few examples, will be prioritized.

The TICAL Conference will be held along with the Latin American e-Science Meeting for the second consecutive year. Its call for papers will also focus on digital transformation in research processes ([see the call for papers here](#)).

Only papers that highlight the solution and its technological implementation will be accepted.

Mandatory requirements

The papers to be submitted must comply with the following criteria to be accepted:

- Experiences: the papers should strongly focus on experiences. TICAL is an area where people share successes and mistakes. Scientific or merely academic works are not intended.
- Projects or services: TICAL is seeking for papers that describe executed projects or implemented services and not only ideas or not executed proposals.
- Focus on ICT: TICAL brings together the ICT leaders of the universities, which is why it is sought that the papers presented are of interest to them.
- Impact on university strategy: It is considered as a very significant value that the paper describes, if appropriate, the impact of the technological solution in the university strategy.
- Classification by thematic axis: Authors must indicate the main axis under which they present their papers. It is possible to choose a secondary axis if the work includes more than one.

Mandatory rules to follow:

The presentation structure should contain the following aspects:

1. Problem and context in which the project was developed
2. Description of the technological solution that was implemented (if the paper has as its theme an experience implemented in ICT management or governance, it is necessary to describe it).
3. Critical and relevant aspects to be highlighted and detailed.
4. Obtained results and its impact.



5. Learning (errors and hits)
6. Not expected impacts (if any).

Material that applicants must prepare

1. A paper with a minimum length of eight (8) and a maximum of 20 pages, which describes the work and its results. The official languages are Spanish and Portuguese.
2. Papers must be submitted in strict accordance to the format established by the TICAL2018 Conference and the 2nd Latin American e-Science Meeting Authors Guide ([download here](#)) in Word and PDF format.

If your paper is selected, you will need to prepare:

1. An English copy of the abstract (200-300 words).
2. A presentation of a maximum of 15 minutes, showing the experience developed in all its stages (15 minutes is the maximum time for presentation, a deadline that will be strictly adhered to).

Benefits for Selected Papers

RedCLARA will bear the costs of air tickets to the host city of the event (Cartagena de Indias, Colombia) for one (1) author of each selected paper.

Call for Papers

We invite those interested to present their papers in accordance to the themes described above, sending their proposals to tical@redclara.net indicating in the subject: **Propuesta para la Convocatoria de Trabajos - TICAL2018**

Important dates:

- Launching of the call for papers: February 26, 2018
- Last day for submissions: May 07, 2018
- Consultation period: until March 26, 2018 (e-mail: tical@redclara.net)
- Notification of selected papers: June 29, 2018
- TICAL2018 Conference: 3-5 September 2018