

CONECTA: A VIRTUAL SHOWCASE FOR SOLVING PROBLEMS REQUIRING KNOWLEDGE AND TECHNOLOGY

Tatiane Alves Baptista¹, & Claudia Gonçalves Lima²

¹*Center of Strategic Studies and Development, Rio de Janeiro State University/ Associate Professor (Brazil)*

²*Pro-Rector of Extension and Culture, Rio de Janeiro State University / Adjunct Professor (Brazil)*

Abstract

The project aims to contribute to the strengthening of university-society relations, agreeing that higher education is an important means of promoting citizenship, combating social inequality, increasing the competitive capacity of States, increasing local economies, either through the placement of skilled workforce on the market, or through a likely emergence of innovative markets and the generation of a range of sociocultural factors which are essential to promote life in society.

The model of higher education, open and articulated with external actors, occupies a prominent place in many countries. The so-called “triple helix”: universities – governments – society, constitutes an undeniably successful model. This model has helped to leverage national economies, which simultaneously has generated virtuous processes of economic development and appreciation of higher education institutions in these countries.

The necessary process to transform scientific creation and technological innovation into something able to improve the life quality of populations and cities requires countless interactions among the world of science and technology, governments and the market. In this context, scientific and technological activity is perceived as a complex process in which the strategic integration between actors in the three domains and the establishment of networks become the key elements.

This is about understanding university governance from a more contemporary perspective, considering the present day complexity and the availability of existing technological tools, enabling the establishment of a dialogue and knowledge sharing in a plural and democratic way.

In times of so many challenges, it is up to the university to exercise creativity and critical thinking to find sustainable and ethically valid paths that guarantee the consonance of the public university with the country’s development, reaffirming the institution's role in society, as its participation in confronting inequality and the different forms of discrimination based on gender, race, religion, as well as, and especially, THE ROLE OF THE UNIVERSITY AS A VECTOR OF ECONOMIC AND SOCIAL DEVELOPMENT, highlighting its potential for collaborating in the production of innovative solutions to overcome problems requiring technology and knowledge.

It is understood that a connection between theory and practice and, even more, a connection between different areas of knowledge will lead to the interdisciplinary approach demanded by social issues, making CONECTA a showcase of easily accessible solutions and innovations.

Thus, the project proposes the creation of an application which can 1) SHARE KNOWLEDGE: Produce a database composed of projects already carried out by the university, in a user-friendly language accessible to the non-academic public and focused on experiences, innovative methodologies and solutions; 2) IMPROVE AND EXPAND INTEGRATION UERJ – SOCIETY: Strengthen UERJ’s integration with society through scientific dissemination and technology transfer; and 3) GENERATE POSITIVE IMPACT: Create, implement and consolidate an application to promote projects developed by UERJ, and which are able to provide benefits to society (Public Management, Industrial Sector, Civil Society, etc.).

Keywords: *Higher education, education management, university and society.*

1. Justification and institutional environment: Introducing Rio de Janeiro State University

Rio de Janeiro State University was founded in 1950 and currently has 30,488 undergraduate students enrolled in its 56 courses. It offers 63 master's courses, 46 doctoral courses and 142 specialization courses. There are 2,614 professors and 4,594 technical employees, totaling a community of more than

37,000 people. The University's structure is divided into eight regional *campi*, with the Maracanã Campus as its headquarters. With 515 laboratories, a University Hospital with 348 beds and treating about 14,000 patients with high-complexity health, as well as an Application School with a body of 1,500 elementary and high school students, UERJ is the second largest university in Rio de Janeiro and the 620th in the world, according to the Center for World University Rankings (CWUR), 2021-2022 edition.

Since it belongs to the State of Rio de Janeiro, UERJ has a particular mission focused on issues related to local development, without losing its international articulation. Thus, currently the Directorate of International Cooperation at UERJ has 187 active cooperation agreements with around 40 countries.¹. UERJ also has a technology park including 4 incubators of technology companies and recognized experience in partnership projects with public and private sectors. In this sense, it is worth highlighting UERJ's successful projects on environmental preservation, human and social rights, infrastructure, human health, among other areas.

The present project has been developed by the Center for Strategic Studies and Development in partnership with the Pro-Rectorate of Extension and Culture, where the management of the services provided by the university is done, identifying strategic areas of research, and training of human resources and academia-society partnerships.

To illustrate UERJ's technical capacity in this sector and how this process happens in practice, here is a case of what is considered to be the focus of dissemination and integration, an example of content to be available on the Platform:

Paraty-Cunha Park Road

The construction of the highway which crosses an area of environmental protection (National Park), for this reason called Park Road, connecting the municipalities of Paraty (RJ) and Cunha (SP), represented a successful experience carried out by professors from UERJ who were assigned the task of adapting engineering actions to the necessary environmental care for the area preservation. The university team's performance was widely recognized and received an award for the best environmental project of 2014, granted by the Regional Council of Engineering and Agronomy of Rio de Janeiro. Up to the present, it has been the object of studies by those interested in the area. The project involved 55 professors and researchers from different areas: engineering; biology; architecture; archeology; veterinary; communication and; education. The work, which lasted 30 months, was developed from the adaptation stage – adjusting the engineering project to environmental interests – and proceeded with the monitoring of the work execution. Among its main purposes, the university has sought to develop technical solutions for constructive practices that can mitigate impacts on the environment; monitor the dynamics of fauna populations and protected vegetation; promote intense interaction with the community of the two municipalities through a communication system (by using different media); hold public hearings; provide environmental education in schools; archaeological studies and studies of urban impacts in the participating municipalities.

To continue the challenges of integrating such different areas, the work developed innovative management practices which promoted the multidisciplinary approach required by the environmental area. In addition to being successful from a practical and objective point of view, it has generated numerous academic research works.

(<https://youtu.be/P8POksGKn2A>)

¹**Current agreements with French Universities:** École Supérieure D'Art des Pyrénées - PAU Tarbes | www.esapyrenees.fr, Institut de Commerce International de Dunkerque | www.iscid-co.fr, Institut D'Etudes Politiques de Lyon (Sciences Po Lyon) | www.sciencespo-lyon.fr, Institut D'Etudes Politiques de Paris (Science Po) . **Coverage:** IESP | www.sciencespo.fr, Institut D'Etudes Politiques _ Sciences Po Rennes | www.sciencespo-rennes.fr, Institut de Recherche Pour le Développement - IRD | www.ird.fr, L'Institut D'Etudes Politiques de Bordeaux | www.sciencespobordeaux.fr, Université Blaise Pascal | www.univ-bpclermont.fr, Université d'Angers | www.univ-angers.fr, Université de Limoges | www.unilim.fr, Université de Pau et des Pays de L'Adour | www.univpau.fr, Université de Poitiers | www.univ-poitiers.fr, Université de Rennes 1 | www.univ-rennes1.fr, Université de Rouen - Normandie | www.univ-rouen.fr, Université de Strasbourg | www.unistra.fr, Université Jean Moulin - Lyon 3 | www.univ-lyon3.fr, Université Du Littoral - Côte D'Opale | www.univ-littoral.fr, Université Nice Sophia Antipolis | www.unice.fr, Paris 1 - Université Panthéon-Sorbonne | www.univ-paris1.fr, Paris 2 - Université Panthéon-Assas | www.u-paris2.fr, Paris 3 - Université Sorbonne Nouvelle - **Coverage:** Arts and Humanities | www.univ-paris3.fr, Université Rennes 2_Haute Bretagne | www.univ-rennes2.fr, Université Toulouse 1 - Capitole | www.ut-capitole.fr, Université Toulouse Jean Jaurès | www.univ-tlse2.fr.

2. Design

From the point of view of technological feasibility, the Platform became tangible, especially with the advent of universal access to mobile telephony, through 3G, 4G networks and, in a near future, 5G, the use of applications through cell phones, tablets, laptops, with emphasis on smartphones as pioneers and most used in this process. This fact definitely consolidates the need to transmit and receive information through the so-called applications - Apps, making such tools the last frontier in obtaining and exchanging information.

Data collected for the Continuous National Survey of Household Sample (PNAD) - 2018/2019, carried out by the Brazilian Institute of Statistics - IBGE, indicate that 95.7% of internet users prefer the fastest and easiest forms of communication, using their mobile devices to send and receive messages, either through voice or image, in addition to exchanging information via installed programs. Besides, 88.4% of the users watch videos, including shows, series and movies, on their mobile devices.

Globally, countries such as China, India, the United States, Brazil and Indonesia stand out as the largest monthly users of applications, reaching the astounding mark of 155 billion downloads in 2021, according to the State of Mobile report 2022 – Appannie.²

Therefore, it can be stated that the project's uniqueness is being an integration platform, a mechanism for communication, dissemination, mediation, dialogue, sharing and integration among the academic community, entrepreneurs, citizens and governments, seeking innovative, sustainable projects aimed at the development and the common good. It is about articulating common interests, technical capacity, external financing partners and investing in the formation of a new interdisciplinary, intersectoral and citizen community, integrating concrete actions made possible from its own installed capacity.

3. Conclusion

In terms of scientific dissemination, implementing the platform will result in the availability of a tool aimed at promoting the capacity installed at the university for different segments of users served in their specificity through a “menu” of targeted content.

PROFILE	USER
GOVERNMENT REPRESENTATIVES (MUNICIPALITIES, STATES AND FEDERAL GOVERNMENT)	FOCUS ON PROBLEMS X SOLUTIONS
ENTREPRENEURS	FOCUS ON INNOVATION, EXECUTIVE CAPACITY AND RESULTS
RESEARCHERS, STUDENTS AND THE GENERAL ACADEMIC COMMUNITY	FOCUS ON METHODOLOGIES, ACADEMIC OUTCOMES AND PUBLICATIONS
ALL PROFILES	SHORT VIDEOS AND IMAGES, INTUITIVE CONTENT, INTERACTION AREA (E.G.: LEAVE YOUR CONTACT, SEND A MESSAGE, TALK TO THE TEAM).

Finally, it is important to stress that the platform is not a final product, but yet one more piece of a bigger gear which involves the current strategy adopted by Rio de Janeiro State University in the sense of carrying out new academic projects, valuing partnerships, cities, public authorities, companies and social interests, thus bringing benefits to society (Public Management, Industrial Sector and Civil Society).

²Find more at www.appannie.com/en

References

- Cwur, (2021-2022). *Global 2000 List by the center for world university rankings*. Retrieved 01/26/2022, from <https://cwur.org/2021-22.php>
- Lepori, B & Kyvik, Svein (Eds.). (2010). *The Research Mission of Higher Education Institutions Outside the University Sector. Striving for differentiation*. Dordrecht: Springer.
- Paradeise, Catherine & Thoenig, Jean-Claude. (2013). *Academic institutions in search of quality: local orders and global standards. Organization Studies. SAGE Publications. Volume Number 34 (2)*, Page Numbers 189-218.
- Ristoff, Dilvo & Morosoni, Marília (Ed.). (2015). *Autonomia, governabilidade e avaliação. In: Fórum Latino Americano de Educação Superior*. São Carlos: Pixel.
- Rothwell, R. (1992). *Successful Industrial Innovation: Critical Factors for the 1990s. R&D Management, Volume Number 22*. Page Numbers 221-239.
- UNESCO, (2009). *World Declaration on Higher Education for the Twenty-First Century: Vision and Actions*. Retrieved 01/26/2022, from <https://unesdoc.unesco.org/ark:/48223/pf0000141952>.
- UNESCO, (2009). *World Conference on Higher Education: the New Dynamics of Higher Education and Research for Societal Change and Development*. Retrieved 01/26/2022, from <https://unesdoc.unesco.org/ark:/48223/pf0000183277>.