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# Telehealth UERJ RJ-Brazil: the impact of using technologies for health education

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## Abstract

**Abstract: Introduction and aims: Telehealth UERJ is focusing at the perspective of "WHO" for service, education and collaborative research using technologies of information and communication. This work intends to present the impact of using telehealth as a support for countries in development. Methodology: qualitative and quantitative data of the projects supported by UERJ's Telehealth Center were analysed from May to December 2011. Results: 16,554 health professionals are registered at Moodle platform: 16,445 are Brazilian and 109 are foreigners from Argentina, Bolivia, Canada, Chile, Colombia, Germany, Spain, Panama, U.S.A., Portugal, Belgium, Peru, France, Romania, Switzerland, Guatemala, Guinea-Bissau, Hong Kong, Russian Federation, Malaysia, Angola, Mozambique, Belize, Bhutan, Cape Verde, Afghanistan, Costa Rica, and Italy. Most of the professionals were nurses (36%), physiotherapists (21.3%), nutritionists (8.75%), doctors (7.69%), dentists (2.45%) and others, as psychologists and social assistants (23.51%). All in all, there are 445 recorded classes, 31 distance courses, 93 seminaries on particular topics and 4 recorded congresses. Conclusion: telehealth is modifying positively the paradigms for health education.**

## Introduction

UERJ Telehealth Center [1] (placed in the State University of Rio de Janeiro) leads all the Brazilian governmental programs [2,3] in Telehealth, making available several tools for synchronous and asynchronous communication among health professionals. At the scope of Telehealth Brazil Networks, e.g., UERJ-RJ Telehealth Center offers many activities concerning tele-education, such as training and seminars by teleconferences, as well as recorded distance courses for professional refreshing and recertification. The materials as a whole are recorded and made available on a virtual learning environment [4] implemented, using an open source software (Moodle, Martins Dougiamas, Perth, Australia) with free and exclusive access for health professionals. This work goal is to present the impact of using telehealth as a support for countries in development focusing at the perspective of WHO (World Health Organization) for service, education and collaborative research using information and communication technologies.

## Methodology

Brazil is a country with continental dimensions, and for this reason it still presents asymmetry concerning health services supply. That is why Telehealth is proving to be a better solution for shortening distance, breaking geographical frontiers, reducing the real time attendance spent, via specialized teleconsulting, and providing classes, training, professional development and courses at distance, so that the professional does not have to move to take them. For this purpose, Brazilian Federal government has launched two programs nationally integrated in Telehealth: one, the University Networks in Telemedicine (RUTE) [1], responsible for interconnecting university hospitals with national and international centers of excellence. RUTE is supported by the Brazilian Ministry of Science and Technology and Innovation (MCTI). The other program is Telehealth Brazil Networks [2], supported by The Brazilian Ministry of Health uniting the University Nucleus of Telehealth to centers and remote municipality health unities. This Brazilian Telehealth Networks [3] is enabling and refreshing the professionals and also qualifying the medical attendance at SUS (Brazilian Unified Health System) using mainly the web as a means of communication among groups. At the moment, Brazilian Federal Government together with the Ministry of Communication (MC) is implementing the PNBL, i.e., a program intending to provide broadband to 40 million Brazilian residences until 2014. On the other hand, globalizing Telehealth demands cooperation and integration among countries. For this, teleconference systems, by web and videoconferences, were used. All the synchronous activities have been recorded and organised in a virtual environment of learning [4] together with a teleconsulting asynchronous system (Figure 1). Data were analysed qualitative and quantitatively, including all the projects supported by UERJ's Telehealth Center from May to December 2011.

*Figure 1: Virtual environment of learning including recorded tele-education activities and a teleconsulting assynchronous system*

## Results

16,554 health professionals were registered at Moodle platform until December, 2011: 16,445 are Brazilian and 109 are foreigners from Argentina, Bolivia, Canada, Chile, Colombia, Germany, Spain, Panama, U.S.A., Portugal, Belgium, Peru, France, Romania, Switzerland, Guatemala, Guinea-Bissau, Hong Kong, Russian Federation, Malaysia, Angola, Mozambique, Belize, Bhutan, Cape Verde, Afghanistan, Costa Rica, and Italy (Figure 2).. Most of the professionals were nurses (36%), physiotherapists (21.3%), nutritionists (8.75%), doctors (7.69%), dentists (2.45%) and others, as psychologists and social assistants (23.51%). All in all, there are 445 recorded classes, 31 distance courses, 93 seminaries on particular topics and 4 recorded congresses.

## Conclusion

The use of Telehealth is modifying positively the paradigms for health education, especially in what concerns to the real implementation of a world-wide Telehealth network.

### REFERENCES

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