

## Who develops ICT resources in higher education?

### Applied research and contributions of the University Community in developing countries: the case of Addis Ababa University and Wollo University (Ethiopia)

**Keywords:** ICT4D, higher education, collaborative framework, applied research, international cooperation, community networks.

#### CONTEXT

ICTs are a potential means of development, specially for universities and other education and research institutions, as an essential part of the national development engine. The association AUCCOOP, with the support of Center of Cooperation for Development from Universitat Politècnica de Catalunya (CCD-UPC), and Addis Ababa University (AAU), have been working since 2009 in different collaborative actions related to the development of ICT resources in one of the new Ethiopian universities, Wollo University (WU), with the vision to extend the outcomes of this collaboration to other higher education institutions in Ethiopia.

#### METHODOLOGY

The Cross-layer Framework Approach divided in three areas (**legal framework**, **research activities** and **community actions**) aims to achieve sustainability and maximize its impact, linking and encouraging actors from different institutions, from the administrative to the community level, including board directors, staff, researchers, teachers and students, thus building a cooperative framework and fostering the culture of collaborative research and resource exchange. The objectives and results of activities carried out by the mentioned contributors during the last years are summarized in Table 1.

#### OBJECTIVES

#### RESULTS

	OBJECTIVES	RESULTS
Legal Framework	<ul style="list-style-type: none"> <li>- Legal environment for cooperation</li> <li>- Interests and duties of each partner</li> <li>- Procedures for resource exchange</li> </ul>	UPC and AAU signed a “ <b>Memorandum of Understanding</b> ” in 2012, to foster cooperation and development of academic and cultural exchanges and mutual assistance in the fields of education, research and others.
Research Activities	<ul style="list-style-type: none"> <li>- Collaborative research framework</li> <li>- Research areas of common interest</li> <li>- Research studies (Degree, Master, Doctorate)</li> </ul>	2011 - Master Project (UPC): ICT resource development in WU 2012 - Master Project (AAU): Intranet for Wollo University 2013 - Master Project Proposal (UPC): Community networks in AAU, and Collaborative Research Proposal within FP7 CONFINE Project
Community Actions	<ul style="list-style-type: none"> <li>- Participation of staff, teachers and students</li> <li>- Community-based areas of interest</li> <li>- Seminars, workshops and training</li> </ul>	<ul style="list-style-type: none"> <li>- International cooperation projects since 2009</li> <li>- ICT4D trainings and seminars, related to WiFi, Digital Content Apps and Active Learning Methodologies</li> <li>- Dissemination activities for the university community</li> </ul>

TABLE 1. CROSS-LAYER FRAMEWORK APPROACH

#### DISCUSSION AND RECOMMENDATIONS

So far, several activities have been held related to the three different areas, and it can be stated that many open-source and cost-effective ICT solutions for education institutions already exist, e.g., Wireless networks, Content and Learning Management Systems, Intranet websites, and the like. However, their deployment and impact to the university community is one of the critical issues to be addressed, as in many cases, either the equipment is not available, or the local knowledge is not sufficient.

Given that, more research effort should be placed to analyze each scenario, involving the community from the very beginning and identifying actors, roles, opportunities and threats that may affect the deployment of these tools, thus generating a critical mass of research studies that will provide a better understanding of the environment. Then, with a clear view of the needs of the community and the feasibility analysis of ICT solutions, the impact and benefits of deploying ICT solutions will be maximized, while community members will feel confident as taking part of the change.



#### PARTICIPANTS

Spain

- Associació Universitaris per la Cooperació (AUCCOOP)
- Universitat Politècnica de Catalunya (UPC)

Ethiopia

- Addis Ababa University (AAU)
- Wollo University (WU)

#### CONTRIBUTORS

Jesús Berdún (AUCCOOP, UPC)

Mail: [jesus@aucoop.org](mailto:jesus@aucoop.org)

Skype: [jesus\\_berdun](https://www.skype.com/user/jesus_berdun)

Web: [www.aucoop.org](http://www.aucoop.org)

Dr. Eva Vidal (UPC)

Mail: [eva.vidal@upc.edu](mailto:eva.vidal@upc.edu)

Dr. Sebsibe H/Mariam (AAU)

Mail: [sebsibe.hailemariam@aau.edu.et](mailto:sebsibe.hailemariam@aau.edu.et)

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