Workshop #6:

Virtual Networks for the Digital University: Research and Partnership

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Introduction

The internationalization of higher education in the last decades reigns highly on the agendas of higher education systems worldwide. Universities are expected to become key players in a global knowledge network. Higher education institutions are challenged today to move from operating mainly within state systems to a global arena. The emergence of the digital technologies have affected the traditional roles of universities and other higher education institutions at international, national and institutional levels, and have enhanced the creation of virtual networks that affect all layers of the academic operation: teaching, research, administration and the interrelations with the work and corporate worlds and with society at large. Operating in a growing global network has a crucial impact on shaping the missions, strategic planning and operational practices of higher education institutions. Most academics have adopted eagerly the many technological capabilities provided by the Internet in their research activities, though many still feel reluctant to incorporate the technologies in their teaching. The digital technologies gave rise to many new providers of higher education and increased the competition in the academic global market, and at the time we witness a growing trend of collaborative ventures both in teaching and in research. In this brief policy document we relate to the impact of international virtual networks on research and partnership in higher education.

State of the Art

We identified in the relevant literature seven major themes that relate to the impact of virtual networks on the conduct of research in higher education, and on the creation of collaborative ventures in research and teaching:

- **League tables** – There are currently over 50 league tables that compare academic outcomes in a variety of fields and domains. The two most influential league tables are the *Shanghai Ranking* of 500 leading research universities and

the *Times Higher Education Ranking* which are based on very different criteria. The rankings of the league tables that are published on the Internet are most influential in planning and conducting research activities of universities worldwide, and most particularly of leading research universities.

- **World-class universities** – The globalization of higher education has enhanced the funding of world-class universities in many national jurisdictions which compete for excellent students and faculty and get generous funding from their national governments. Part of the requirements for a becoming a world-class university is engaging a high proportion of transnational students and prominent academic faculty from universities abroad. Some of the collaborative research ventures are carried on through virtual networks.

- **International networks** - Many international bodies, such the OECD, World Bank, UNESCO, but also new virtual networks, such as DTransform Leadership Forum that encourages a more effective implementation of technological applications in higher education, are purporting to support collaborative research, and advance better utilization of virtual networks. Many research projects funded by the EU and Council of Europe require partnership of several higher education institutions from different countries as a mandatory prerequisite for research funding.

- **Collaborative research** – There is a growing number of collaborative research ventures carried on partially through virtual networks. As a matter of fact, most collaborations in academia are carried on in research, much less in providing joint diplomas and degrees.

- **Global campuses** – Many innovative global campuses have been established or in a process of being established in the last decade. A remarkable example is the Global University in South Korea that is composed of 10 mini-campuses, each of which is under the auspices of a different university (five are under the responsibility of European universities, and five are under the responsibility of US universities). The focus in this university is on graduate studies and

advanced research which is monitored by faculty from the different universities, and is carried on both on campus and through virtual platforms.

- **International research centers** – Such centers operate in many national jurisdictions and aim at gathering scholars from different countries, partially through virtual networks. Such centers are funded by both national governments and international foundations and organizations.

- **Dissemination of research through MOOCs and OER** – The Open Source movement and the MOOCs phenomenon constitute a relatively recent development in higher education. They provide an illuminating example of collaboration among a growing number of higher education institutions, and provide open access to sources of scholarly information, libraries and diverse data bases. Such sources might be most beneficial for higher education institutions in countries that suffer from severe shortages of adequate academic manpower and research facilities. All of the OER and MOOCs provision is carried on through the Internet. However, so far follow ups indicate that the majority of users who benefit of these resources are from developed countries, and are people with academic degrees.

Future Vision: Challenges and Opportunities

The internationalization of higher education, the growing impact of virtual networks and the increase of international collaborative ventures in academia require a significant shift in the operation of higher education systems, as well as individual higher education institutions. Operating in a most complex world, requires policy makers at the international, national and institutional levels, to handle concurrently contrasting trends trying to maximize the advantages provided by virtual networks and opportunities for collaboration.

The increased focus on international academic partnerships, the growing link between internationalization, research and employability, require the rethinking of the roles and responsibilities of higher education institutions within national borders, and beyond. The leaders of higher education systems, as well as individual higher education

institutions, have to carefully evaluate and choose the benefits offered by growing international and virtual networks, as well as acknowledge some of their adverse consequences. There is no way to escape the growing internationalization and globalization trends of higher education, which provide nowadays a plethora of opportunities.

We will see in the future a growing number of global campuses, a growing number of transnational students, joint diplomas, and research conducted both in international physical centers and enhanced by virtual networks. There is likely to be a greater synergy between the academic world and the corporate and work worlds, and a growing importance for professional upgrade and life long learning.

Channels and Strategies for Change

Since most of the higher education systems worldwide still operate mainly within nation states, it is of tremendous importance to enhance cooperation in the academic world, both in research and teaching through international agencies and organizations, and the creation of international networks such as DTransform Leadership Forum and the Future University Network.