



## **Globalization and higher education: Changing trends in cross border education**

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Globalization is a market-driven process and it stems from a belief that markets play a more important role than the State in development. Knowledge-based production has become the distinguishing characteristic of globalized economies. The intellectual capital produced by universities and research institutions has become a crucial factor of production in a globalized knowledge economy. Technological developments, especially in information technology transformed the way the world economy is organized and the way higher education is provided. This paper analyzes the effects of globalization on higher education on the one hand and trends in globalization of higher education on the other. It categorizes the globalization of higher education into three distinct, but related, phases. The first phase experienced a surge in cross-border student flow, the second phase saw the development of education hubs and branch campuses, and the third and the most recent phase witnessed program mobility and is revolutionized by the massification of online courses such as Massive Open Online Courses.

Keywords: branch campuses, cross-border mobility, education hubs, globalization, internationalization, knowledge economy, Massive Open Online Courses, MOOC

### ***Introduction***

Globalization implies free flow of goods and services across borders resulting in an integrated world economy. It is a market-driven process and stems from a belief in markets, as opposed to the state, to promote economic growth and social welfare. Events such as the disintegration of the centralized system of the Soviet Union, spread of democracy among increasingly more countries, liberalization policies following the structural adjustment regime in developing countries, and foundation (establishment) of the World Trade Organization (WTO) and General Agreement in Trade in Services (GATS) have all contributed to the shaping of a globalized economy.

In the early 1990s, globalization was perceived to bring “unprecedented prosperity *to all*” (Stiglitz, 2006, p.7). The end of the same decade witnessed

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major protests against globalization in Seattle in December 1999, indicating that “globalization had succeeded in unifying people from around the world—against globalization” (Stiglitz, 2006, p.7). The economic crisis of 2008 further undermined the globalization process and the role of markets in development (Varghese, 2010). Despite these reservations, the process of economic integration in the global economy continued uninterrupted.

The emergence of a knowledge economy and technological developments have contributed significantly to the globalization process. Knowledge-based production has become the distinguishing characteristic of globalized economies, and the quantity of knowledge embedded in the goods produced and exported has increased considerably in the 1990s (World Bank, 1999). The universities and research institutions producing knowledge became dear for their intellectual capital, which has become a crucial factor of production and an engine of economic growth in the globalized knowledge economy.

Technological developments, especially in information technology, facilitated cheaper and faster communication and transportation of ideas and goods. The more common means of communication in the globalized world involves billions of users of mobile phones, Internet, Facebook, Twitter, blogs, etc. Developments in information-communication technology have a tremendous effect on the way the world economy is organized and is changing the higher-education landscape.

This paper analyzes two aspects of changes in higher education in the context of globalization. The first relates to the effect of globalization on higher education, and the second to globalization of higher education itself. It is shown in the paper that globalization of higher education can be analyzed in terms of three distinct, but related, phases where the major forces influencing globalization of higher education changed. The first phase in the globalization of higher education experienced a surge in cross-border student flow; the second phase saw the development of education hubs and branch campuses; and the third, the most recent phase witnessed program mobility and is revolutionized by the massification of higher education through online courses such as Massive Open Online Courses (MOOCs).

The plan of this paper is as follows: The next section makes a distinction between internationalization and globalization in higher education. This is followed by discussions on the effect of globalization on higher education in Section 3 and globalization of higher education focusing on student mobility, institutional mobility, and programs mobility representing the three phases in the globalization of higher education in Section 4. The final section draws some conclusions in the form of cautions to protect the students and to maintain quality.

### ***Internationalization versus globalization***

Knowledge is universal and institutions producing knowledge, namely universities, were conceived in the medieval period as international institutions. The European model (Paris model) served as a common global academic model attracting international students, following Latin as the common language of academic discourse (Altbach, 1998).

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In the post-World War II period, the governments in the developed countries relied on higher education as a means for building relationships with foreign nations. United State Agency for International Development (USAID) and the Fulbright program, Colombo Plan, Commonwealth Scholarship and Fellowship Plan (CSFP) including British Council Commonwealth program, and the German Academic Exchange Service, commonly known as DAAD, are examples of national efforts to promote cross-border education (Altbach and Knight, 2006).

Nationalizing development was one of the important motives to establish universities in many countries in the post-colonial period. It implied the replacement of expatriates in administration and re-orienting education to realize national development objectives. For example, in countries in Africa, the “Africanization” of administration and decision making was an immediate priority concern (Sutton, 1971). Government funding and public universities were common in most countries during this period.

In the era of globalization, the perceived role of universities changed from national development to contributing to producing for the global market. Universities became autonomous, less reliant on state funding, and market-oriented in their operations (Varghese, 2013). Higher-education institutions were thriving to reposition to remain relevant to the globalized production. The globalization of higher education was in response to these changes in the external context of education.

The external context introduced changes whereby the process in higher education changed from internationalization to globalization. Internationalization of education implies the imparting of knowledge, skills, and values that have a universal application. It is a process of integrating an international, intercultural, and global dimension into the purpose, functions (teaching, research, service), and delivery of higher education (Knight, 2004). The most visible form of internationalization implies cross-border education taking place mostly through cooperation projects, academic exchange programs, and commercial initiatives (Knight, 2006).

Globalization implies a flow of people, knowledge, and culture across borders as a market-mediated process stemming from commercial motives. It is a designed activity to introduce an international and multicultural outlook to suit the requirements of the global market centered on knowledge economies. Economic rationality and commercial interests act as major incentives to promote cross-border education in the context of globalization.

Institutions of higher education become yet other organizations engaged in producing and selling education to the global market, very often, for a profit. In other words, higher-education institutions become corporate entities functioning on the basis of the operating principles of the market process. Liberalization policies during the structural adjustment regime, removal of trade barriers, and the establishment of GATS created facilitating conditions for the easy entry and exit of foreign institutions on the national scene.

In the GATS framework, higher education become a tradable commodity—a profitable venture; cultural activities become commercial products, the public is defined as customers, the university becomes the provider, and the learner becomes a customer or purchaser of services (Yang, 2005). Providers are more often investors than educators, and the profitability of the sector attracts them to

this area of business. The private sector, which considers that it is the last frontier of profit, is trying to enhance its market share in the business of education (Stromquist, 2002).

Recent income estimates from cross-border education indicate that the USA earns \$15.5 billion, \$15 billion for Australia, \$14.1 billion for the UK, \$6 billion for Canada, to \$1.5 billion or more for New Zealand (Ruby, 2009). Higher education in the context of globalization, no doubt, has become a multibillion dollar business.

### ***Effects of globalization on higher education***

The level and nature of skills required in the knowledge economy are different from that of the traditional manufacturing sector. A postsecondary level of education becomes a minimum entry requirement in many a job markets. It is shown that in countries such as Canada, nearly 70% of all new jobs will require a post-secondary level of education (ILO, 2004). This rise in qualification requirements is the primary reason for an increase in the employment opportunities of the educated in the context of globalization.

Globalization resulted in an increase in the flow of Foreign Direct Investment (FDI) and multinational corporations (MNCs) from the developed to developing countries. The firms in this segment adopted new technology, aligned with knowledge-based production, and thrive to maintain global standards in production. The skill requirements for employment in this segment are similar to the requirements of multinational corporations operating in the country of origin. These firms generated employment, which demanded high-level skills and higher-education qualifications.

Some studies have shown that the type of skills required in the knowledge-based globalized economy are: a) theoretical knowledge to design; b) technological knowledge to develop production; c) technical knowledge to produce, and; d) vocational skills to support production (Hansen, 2008). The corresponding educational structure may be: a) research universities to feed theoretical knowledge to design; b) other universities and degree-granting institutions to feed into technological knowledge to develop production; c) post-secondary institutions offering courses to provide technical knowledge in production and to be recruited as paraprofessionals; and d) secondary or post-secondary level institutions to feed into the vocational occupations.

Where will the potentially skilled workers that are needed for the competitive knowledge-intensive industries come from? There can be two strategies (Varghese, 2011): a) educate citizens at home, which is expensive and time consuming; b) hunt for talent abroad—import highly skilled knowledge workers from abroad. This is easier and faster, and encourages brain drain from peripheries to centres located in the USA, Europe, Australia, etc. In this case, as noted by Altbach, “the developing and emerging economies are subsidizing the rich countries by educating many through Bachelor’s degrees and then losing them” (Reported by Mathews, 2013).

The realization that no single country could produce the skills to meet the increasing demands of an expanding knowledge economy intensified competition among the developed countries to promote migration of the highly skilled, leading to what is termed as the “battle for brains” (Chanda, 2002) or “global

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hunt” for talent (Kapur and McHale, 2005). Many countries changed their visa rules to attract knowledge workers from developing countries. For example, the H1B visa in the USA, the Blue Card visa of the European Union, and point-based emigration policies followed in countries such as Australia, New Zealand, and the UK are examples of initiatives to give preferential treatment to the highly educated and to attract them to these countries.

There was a need to reorient higher education in the developing countries, which produce and export the highly skilled. A production of graduates for the global market implies imparting standardized skills and quality control to meet the requirements of the global markets; making changes in education content to meet global market requirements; promoting international language as a medium of instruction, etc. In fact, English is becoming the language of globalization. An Organization for Economic Co-operation and Development (OECD) survey notes that “English is the premier language of business and professions and the only global language of science, research and academic publication” (OECD, 2008; p.20). It is said that English has become the ‘Latin of the 21st century; its knowledge empowers one in the globalized world and a lack of knowledge of it “seriously disenfranchises” (Mathews, 2013).

All the needed changes to reposition universities and to align with the requirements of the global market imply the globalization of higher education. Universities are revising their curricula, instruction methods, and language of instructions to reflect globalized higher education and promote cross-border education. Two factors seem to have boosted demand for cross-border education. First, a foreign degree, preferably from the country where the parent company is located, enjoys a premium in the MNC labor market. Second, a degree granted by a branch campus of a foreign university also becomes attractive. While the former encouraged students seeking higher degrees to move to developed countries, the latter encouraged institutions moving from developed to developing countries and offering foreign degrees at the doorstep.

### ***Globalization of higher education: The changing trends***

Globalization of higher education implies the mobility of students, institutions, teachers, and programs crossing national boundaries. It has become a market-driven activity involving multiple providers and attracting thousands of students who are willing to buy these services at an international price. Higher education has become a major global industry. It recognizes that the “international knowledge order” has become a powerful determinant in the globalized competition for talented students, resources, and reputation (Weiler, 2001).

The reasons that promote and hasten the process of globalization of higher education are: i) the need to deepen and widen the knowledge base of the economy; ii) well-educated persons should be exposed to ideas, not confined to any national boundary; iii) increasing student demand for foreign degrees; iv) financial attraction of many universities to enroll foreign students; v) prestige that is sought by institutions to show that they play a global role; vi) better communication and cheaper travel costs make people reach different places easily (Wildavsky, 2010).

Cross-border education has become the means to globalize higher education. Increasing demand for the higher educated for the global market and an insatiated

demand for higher-education degrees to enter the global market both put pressure on the cross-border institutions to offer courses and student places. Further, it has become an attractive area of investment at times producing more profit than in other sectors.

As discussed above, cross-border education has become a market-driven activity and has become a tradable commodity under GATS. Trade in education under the GATS framework takes place in four modes (Knight, 2002). They are:

- a) cross-border supply of the service where consumers remain within the country.  
E-learning-based distance education programs are good examples of this type of cross-border education. Technological development has given scope for establishing online universities and massive open online courses (MOOCs).
- b) consumption abroad where the consumers (students) cross the border. This includes full-time study for a degree—part of the study at home, and the remaining part in a foreign country—and exchange and joint degree programs.
- c) the commercial presence of the provider in another country in the form of branch campuses or twinning and franchising arrangements between universities from the developed and developing world, but also among universities of the developed world as a whole.
- d) the presence of persons in another country to provide the service. The most visible form of this mode is the mobility of professors from one country to another as an employee of a foreign university, as part of an academic partnership, or to teach in a branch campus.

Today globalization of higher education is represented through any one of these modes. The most common form of cross-border education is through student mobility and institutional mobility. These two components imply the same mode of student learning abroad or inside one's own country. The former targets global students while the latter targets "*glocal*" students (Choudaha, 2013). The program mobility has grown in leaps and bounds in the recent past through MOOCs.

This paper, in its remaining part, will show that these three modes of trade represent three successive phases in the process of globalization of higher education. The initial phase is characterized by a surge in the cross-border flow of students which has been the most visible form of globalization of higher education. The second phase is characterized by institutional mobility and development of education hubs mostly in non-OECD countries. And the third, most recent phase is represented by program mobility and massification of global higher education through MOOCs, etc.

### ***1 Globalization of higher education, Phase I: Student mobility***

Student mobility traditionally used to be the most common visible form of cross-border higher education and it represents the first phase in globalization of higher education. The market for cross-border students is expanding rapidly especially over the previous decade. According to UNESCO statistics (UIS, 2012), between

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2000 and 2010 the number of students crossing borders have almost doubled from 1.9 million to 3.6 million.

The most familiar pattern of cross-border student flow is from developing to developed countries. North America and Western Europe continue to be favorite destinations for most students. They host 58% of the cross-border students followed by East Asia and the Pacific (21%), and Central and Eastern Europe (9%). These regions together account for 88% of the cross-border students. The relative share of cross-border students hosted in North America and Western Europe declined over the years from around three-thirds in 2000 to around three-fifths in 2010. In 2000, nearly 90% of students from North America and Europe cross the border to study in another country of the same region; 80% of students from Latin America travel to North America and Western Europe for their studies. These percentages have declined to 86.4% and 75%, respectively (**Table 1**). East Asia and the Pacific has become a more attractive place for student mobility in 2010 than in 2000.

**Table 1: Student mobility between regions in 2010**

Sending region	No. of students sent (000s)	First Destination – North America and Western Europe	Second destination (%)
Arab States	249.3	162.0 (65.0)	Arab states (18.0)
Central and Eastern Europe	387.2	235.4 (60.8)	Central and Eastern Europe (34.5)
Central Asia	120.8	72.5 (60.0) (Central and Eastern Europe)	Central Asia (17.6)
East Asia and Pacific	1008.7	520.5 (51.6)	44.2 (East Asia and Pacific)
Latin America and the Caribbean	196.9	147.8 (75.1)	20.8 (Latin America and the Caribbean)
North America and Western Europe	542.7	468.9 (86.4)	6.1 (East Asia and Pacific)
South and West Asia	343.4	244.2 (71.1)	19.6 (East Asia and Pacific)
Sub Saharan Africa	267.0	155.4(58.2)	24.4 (Sub Saharan Africa )
World total	3572.8	2061.5 (57.7 )	21.1 (East Asia and Pacific)
Unspecified	466.8		

Source: UIS 2012

Note: Figures in parentheses are percentages.

East Asia and the Pacific host 21% of the global mobile students in 2010. This region has increased its share since it has become a more attractive place primarily

due to the presence of education hubs in some countries, increased student flow to Australia, China, and Korea.

If one moves from regional to country-level analysis, it can be seen that nine countries (**Table 2**) host more than three-fifths of the cross-border students. In the beginning of this century, the USA accounted for one-fourth of the total cross-border students. However, its relative share declined to less than one-fifth in 2010, although the USA still continues to attract the single-largest share of foreign students (**Table 2**) followed by the UK, France, Australia, Japan, and Germany. There has been a decline in the relative share of foreign students in many of the North American and Western European countries. For example, the share of foreign students in the USA declined from 25% in 2000 to 19.2% in 2010; from 12% to 10.9% in the UK; from 10% to 5.6% in Germany; and from 6% to 2.7% in Canada. Countries such as Australia, the Russian Federation, etc., improved their share of foreign students.

The flow of students from each region shows some interesting features (UIS, 2012). The most favorite destination for Arab students is France (29%); for Central and Eastern Europe it is Germany (16%); for Central Asia it is the Russian Federation (46%); for East Asia and the Pacific it is the USA (28%); for Latin America and the Caribbean it is the USA (33%); for North America and Western Europe it is the United Kingdom (23%), for South and West Asia it is the USA (38%), and for Sub-Saharan Africa it is France (19%).

While the nine countries (**Table 2**) together accounted for 72% of the foreign students hosted in 2000, their share declined to 62% in 2010. This is primarily due to the increase in the number of students hosted by China, which doubled from 36 thousand in 2006 to nearly 72 thousand in 2010; from nearly 28 thousand to nearly 58 thousand in Malaysia; from 167 thousand to 271 thousand in Australia. The biggest increase was experienced by the Republic of Korea from nearly 8 thousand in 2004 to 59 thousand in 2010—an increase of seven times.

**Table 2: Distribution of foreign students by host countries (%)**

Host country	2000	2005	2010
USA	25.0	21.9	19.2
UK	12.0	11.8	10.9
Germany	10.0	9.6	5.6
France	7.0	8.7	7.3
Australia	6.0	7.7	7.6
Canada	6.0	4.9	2.7
Japan	4.0	4.7	4.0
New Zealand	0.0	1.5	1.1
Russian Federation	3.0	3.3	3.6
Others	27.0	27.4	38.0
Total (millions)	1.9	2.7	3.6

*Source:* UIS various years.

The largest sending countries in 2010 are China (563 thousand), India (201 thousand), and the Republic of Korea (126 thousand). These three countries



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account for nearly 16% of the total cross-border students in 2010. Of these countries, 22.5% of Chinese students, more than half of the Indian students, and 56.6% of the Korean students are hosted by the USA.

The share of Chinese students going to Australia and Japan increased considerably over the previous decade. In the case of India, the increased flow is more towards the UK where the number of students from India increased from 14.6 thousand in 2004 to 38 thousand in 2010.

The cost of education and the visa rules became major factors influencing the choice of country for study by the cross-border students. In some countries, there is a provision to extend the visa for one year after the completion of studies while the students look for a job. Many students find this an attractive element in the choice of country of study. Such provision is mutually beneficial since it improves the chances of graduates to stay permanently in the host country. Several countries have relaxed visa rules to attract and retain foreign students.

The two factors that seem to influence demand for cross-border education may be employment opportunities and perceived high-quality education in the host country. A foreign degree enhances employment opportunities and higher returns to investment. As noted earlier, the foreign degree holders enjoy a premium in the labor market in the country of origin also. Another motivation for seeking cross-border education is the perceived high quality and standards of higher education studies offered in universities in the OECD countries. As per the global ranking of universities, the universities in the USA and UK occupy top positions and are considered to be the citadel of World Class universities (Salmi, 2009). Hence there is no surprise that students are eager to get a degree from the universities of these countries. In fact, these two countries host the largest number of cross-border students.

Cross-border education became a source of future labor supply in the developed world since a majority of those who enter as students in the developed countries would like to stay there after their studies. For example, information on the return plans of doctoral graduates from US universities indicates that nearly 90% of Chinese and Indian doctorate students would like to stay in the USA after their studies (Kapur and McHale, 2005). This shows that cross-border education, especially student mobility, becomes fertile ground for recruiting future highly-skilled workers in many developed countries (Tremblay, 2002).

### ***2 Globalization of higher education, Phase 2: Cross-border institutional mobility and education hubs***

Institutional mobility takes place in different forms—through branch campuses, franchising or twinning arrangements. A branch campus is an “off-shore operation of a higher education institution operated on its own or through a joint-venture which, upon successful completion of the study program, award students a degree from the foreign institution” (Knight, 2005; OBHE, 2006). The branch campuses primarily provide face-to-face instruction leading to an award of a degree from the parent institution or jointly with a partner institution (ACE, 2009; Cao, 2011). Franchising denotes the delivery in-country by an authorized domestic institution; and twinning denotes the joint ownership and delivery by institutions in the home and host countries. Although franchising and twinning

are less visible than branch campuses, they are quantitatively larger segments of institutional mobility (Martin, 2007).

The education hubs provide educational opportunities for students to have access to a Western education in their home countries while it establishes a global presence for the sending institution. Many countries establish branch campuses, which act as education hubs attracting students seeking cross-border education within the country and abroad. Development of education hubs has become an objective of some of the national governments in the developing countries. Malaysia, Singapore, Hong Kong, Abu Dhabi, Dubai, Doha, Qatar, Mauritius, etc., are good examples of this trend. Malaysia is developing an international educational hub targeting the graduate education market. Abu Dhabi has campuses of the Sorbonne (France) and New York University (USA). Dubai Knowledge Village (DKV), established in 2003, was founded as part of a long-term economic strategy to develop the region's talent pool to support a knowledge-based economy. DKV has several international universities from Australia, India, Pakistan, Iran, Russia, Belgium, the UK, Ireland, and Canada. Dubai International Academic City (DIAC) is a free zone for higher education and houses over 20 international universities.

Qatar has established an education hub attracting academic programs from US universities with a view to reduce the outflow of Qatari students. To attract foreign students to study in Qatar, the Qatar Foundation provides loans to many foreign students and will write off the loans if the students stay and work in Qatar after graduation. The Education City has six branch campuses from international institutions. Singapore's Global Schoolhouse (GS) initiative, launched in 2002, houses over 16 leading foreign tertiary institutions. The aim of the GS is to make the country a global talent hub. It is estimated that the GS has already attracted over 86,000 international students.

Hong Kong has promulgated the notion of Hong Kong as a regional education hub. Bhutan is planning to build a US\$1 billion education city to encourage prestigious universities and colleges worldwide to establish affiliated institutions in Bhutan. Mauritius has already developed collaborations with prestigious foreign universities of the USA, the UK, France, India, South Africa, etc., to establish a "knowledge hub."

The past decade has seen the rapid growth of US, UK, and Australian higher education institutions offering degree programs and establishing branch campuses abroad. It is estimated that there exists 200 branch campuses in 2012. While the US universities continue to dominate in opening branch campuses abroad (78), the United Arab Emirates continue to host the largest number (37) of them, although it seems that the focus is shifting eastwards from the Gulf to East Asia (Morgan, 2012). Of recent, countries such as India and China are also establishing education hubs in other countries. The Xiamen University of China plans to establish a branch campus in Malaysia and Soochow University of China in Viet Nam (Jansen and Kesner, 2013).

According to a survey of 40 branch campuses presented by the American Council on Education (ACE, 2009), a majority of the branch campuses had a local partner in the host country; most of the local partners in Asia and Europe were colleges and universities, while those in the Middle East were from

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businesses, the local government and nonprofit organizations. A survey of 50 branch campuses revealed that there are broadly 5 types of ownership patterns. They are: i) wholly-owned by the home campus; ii) rented from a private party; iii) owned by the local government; iv) owned by a private partner; and v) owned by an educational partner (Lane and Kisner, 2013)

Some branch campuses receive financial or material support from their host countries except in Europe. The support, very often came in the form of facilities, such as land leases at a discount or rent-free. Some of the branches in the Middle East received financial support from the government. Students attending three of the seven branch campuses in the Middle East were eligible to receive financial aid from the local government.

The ACE survey (ACE, 2009) showed that business programs continue to dominate in Asia and Europe. IT courses occupy the second position followed by international courses common in Europe and computer courses in Middle East. The field of international relations was common in Europe but not in other regions. Almost half of all degree programs in the Middle East were offered in science, technology, engineering, and mathematics (STEM) fields.

A recent survey among students in branch campuses in the UAE found that students prefer studying at a branch campus in the UAE to a Western university for reasons of financial benefits (less expensive), a “hassle-free” life, personal safety, religion, familiarity, comfort with the local culture and lifestyle, and improved prospects in the local/regional labor market after graduation (Wilkins and Balakrishnan, 2012).

There are people who caution about education hubs and branch campuses that can lead to fierce competition, and the impact of foreign competition on domestic institutions may not be favorable to the latter. Further, some believe that higher-education hubs can be dangerous to local institutions since money goes to the foreign universities, and their presence can be used to justify investing less in higher education by the government. Professor Mohammad Bhai the former General Secretary of Association of African Universities (AAU) pointed out that, “Any country that doesn’t have a very strong higher education sector, for it to try to go into international hub business with branches, local institutions could be sidelined and weakened,” (as cited in Jaschik, 2013). And in response to this increasing trade, there are likely to be complaints about the impact of foreign competition on domestic institutions (Lester, 2013).

The other view is that education hubs arrest the outflow of students and money from the developing countries. For example, India spent around US\$4 billion on foreign exchange for Indian students studying abroad. It can be argued that the country could save around US\$4 billion in foreign exchange, had the students stayed within India and received foreign education (Tilak, 2008) through education hubs.

### ***References***

Altbach, Philip G. (1998). *Comparative higher education: Knowledge, the university and development*. Greenwich: Ablex Publishing Corporation.

- Altbach, Philip G. and Knight, Jane. (2006). Internationalization of higher education: Motivations and realities. In: National Education Association, *The NEA almanac of higher education*. Washington D.C.: NEA, 27–36.
- ACE: American Council of Education. (2009). U.S. Branch Campuses Abroad, Acu Brief, September.
- Cao, Yi. (2011). Branch Campuses in Asia and the Pacific: Definitions, challenges and strategies. *Comparative International Higher Education*, 3, 8–10.
- Chanda, Rupa. (2002). *GATS and its implications for developing countries: Key issues and concerns*, DESA Discussion Paper No. 2 (Department of Economic and Social affairs, UN, New York).
- Carr, Nicholas. (2012). The crisis in higher education. *MIT Technology Review*, 27 September.
- Choudaha, Rahul. (2013). Know your International student – Global or glocal? *University World News*, 269, 28 April
- Hansen, Mark. (2008). *Economic development, education and transnational corporations*. New York: Routledge.
- ILO: International Labour Office. (2004). *Promoting employment: policies, skills, enterprises*. Geneva: ILO.
- Jaschik, Scott. (2013). Classifying ‘Education hubs.’ *Inside Higher Ed*, 6 March.
- Kapur, Devesh.; McHale, John. (2005). *Give us your best and brightest: The global hunt for talent and its impact on the developing world*. Baltimore: Brooking Institution Press (for Centre for Global Development).
- King Head, Sarah . (2011). Global: Degree mills tarnish private higher education. *University World News*, 197, 13 November.
- Knight, Jane. (2002). *Trade in higher education services: Implications of GATS*. London: Observatory of Borderless Education.
- Knight, Jane. (2004). Internationalization remodeled: Definitions, rationales, and approaches. *Journal of Studies in International Education*, 8, 1, 27–37.
- Knight, Jane. (2005). *Cross-border education: Programs and provisions on the Move*. CBIE Millennium Research Monograph 10. Ottawa, Canada: Canadian Bureau for International Education.
- Knight, Jane. (2006). *Higher education crossing borders: A guide to the implications of the GATS for cross-border education*. Paris: UNESCO/Commonwealth of Learning.
- Lane, Janson E., and Kisner, Kevin. (2013). Five models of international branch campus ownership. *International Higher Education*, 70, 9–11.
- Lester, Simon. (2013). Liberalizing cross-border trade in higher education: The coming revolution of online universities. *Policy Analysis*, 20, 5 February.

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- Levine, Arthur. (2013). MOOCs, history and context. *Inside Higher Ed.*, 29 April.
- Martin, Michaela. (Ed.).(2007). *Cross-border higher education: Regulation, quality assurance and impact* (Vol.1). Paris: IIEP.
- Matthews, David. (2013). Expansion causing ‘chaos’ across the world. *Times Higher Education*, 12 April.
- Morgan, John. (2012). Branch campuses spread to the East to meet Asian demand. *Times Higher Education*, 12 January.
- OBHE: Observatory on Borderless Higher Education. (2006). *The International Branch Campus: Models and Trends*. Surrey, UK: OBHE.
- OECD: Organization for Economic Co-operation and Development. (2008). *Higher education for 2030: What futures for quality access in the era of globalization?* Paris: OECD.
- Ruby, Alan. (2009). International students: A \$100/billion business? *University World News*, 94, September 27.
- Salmi, Jamil. (2009). *The challenges of establishing world-class universities*. Washington DC: World Bank.
- Stiglitz, Joseph E. (2006). *Making globalization work*. London: Allen Lane.
- Stromquist, Nelly P. (2002). *Education in a globalized world: The connectivity of economic power, technology, and knowledge*. Maryland: Rowman and Littlefield.
- Sutton, F. X. (1971). African universities and the process of change in Middle Africa. In: Kertesz, Stephen Denis. *The task of universities in a changing world*. Notre Dame: University of Notre Dame Press.
- Tilak, Jandhyala B. G. (2008). Higher education: A public good or a commodity for trade? Commitment to higher education or commitment of higher education to trade. *Prospects*, 38, 449–466.
- Tremblay, Karine. (2002). Student mobility between and towards OECD countries: A comparative analysis”. In: Organization for Economic Co-operation and Development (OECD) *International mobility of the highly skilled* Paris: OECD, 39–70.
- UIS. various years. *Global Education Digest: Comparing education statistics across the world*. Montreal: UIS.
- Varghese, N. V. (2010). *Running to stand still: Higher education in a period of global economic crisis*, IIEP Research Papers. Paris: IIEP/UNESCO.
- Varghese, N. V. (2011). *Globalization and cross-border education: Challenges for development of higher education in Commonwealth countries*. IIEP Research Papers. Paris: IIEP-UNESCO.

- Varghese, N. V. (2013). Governance reforms in African higher education: The missing link. *Chronicle of African Higher Education*, (Center for International Higher Education, Boston, Boston College), 3, March 2013.
- Weiler, Hans W. (2001). Knowledge, politics and the future of higher education: Critical observations on a worldwide transformation. In: Hayhoe, Ruth, and Pan, Julia (eds.) *Knowledge across cultures: A contribution to dialog among civilizations*. Hong Kong Comparative Education Centre, 25–43.
- Wildavsky, Ben. (2010). *The great brain race: How global universities are reshaping the world*. Princeton: Princeton University Press.
- Wilkins, Stephen, and Balakrishnan, Melodena. (2012). How well are international branch campuses serving students? *International Higher Education*, 66; 3–5.
- World Bank. (1999). *World Development Report 1998/1999: Knowledge for development*. New York: Oxford University Press.
- Yuan, Li, MacNeill, Sheila, and Kraan, Wilbert. (2008). *Open educational resources – opportunities and challenges for higher education*. Retrieved from: [http://wiki.cetis.ac.uk/images/0/0b/OER\\_Briefing\\_Paper.pdf](http://wiki.cetis.ac.uk/images/0/0b/OER_Briefing_Paper.pdf), pp. 134.
- Yuan, Li, and Powell, Stephen. (2013). *MOOCS and open education: Implications for higher education. A white paper*. United Kingdom: Center for Educational Technology and Interoperability Standards (CETIS).

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