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Educational Research Applications

Kim J. Educ Res Appl 2017: ERCA-111.
DOI: 10.29011/2575-7032/100011

Review Article

Learning 2.0 in Knowledge Economy:A Case Study of a Pilot Project in Zambia

Juseuk Kim

Joongbu University, South Korea

*Corresponding author: Juseuk Kim, Joongbu University, South Korea. Tel: +821029530653,E-mail: juseuk.kim@gmail.com

Citation: Kim J (2017) Learning 2.0 in Knowledge Economy:A Case Study of a Pilot Project in Zambia. Educ Res Appl 2017: ERCA-111. DOI: 10.29011/2575-7032/100011

Received Date: 8 April, 2017; **Accepted Date:** 1 May, 2017; **Published Date:** 8 May, 2017

Abstract

This paper explores how Learning 2.0 in a knowledge economy can promote African higher education. It uses a case study of the Global Knowledge Institute pilot project in Zambia. The paper begins by showing that Learning 2.0 used in a knowledge economy is changing the nature of learning and providing new possibilities for learning. As higher education is a key factor for national development in knowledge economy, this is important for Africa. But Africa has few resources to expand quality tertiary education. An innovative project in Zambia uses Learning 2.0 to overcome some of these challenges and deliver quality higher education. The article shows how the project works and discusses some of the remaining challenges. In conclusion, the concept of the GKI project presents that elements of the learning 2.0 in the knowledge economy can help to spread the higher education in developing countries.

Keywords: Global Knowledge Institute; Higher Education; Knowledge-Based Economy; Learning Management System; Learning 2.0

Introduction

Learning 2.0 is changing the nature of learning and showing new possibilities for learning by providing a new educational experience for learners. And higher education is becoming a key factor for national development in the knowledge economy. However, countries in Africa constitute a very low proportion of the tertiary educated population in comparison with other parts of the world. In order to overcome this situation in Africa, this paper proposes that Learning 2.0 promote the expansion of the existing higher education system using technology development and a learner centered LMS (Learning Management System) environment. Based on a case study of the GKI (Global Knowledge Institute) pilot project in Zambia, this paper examines how Learning 2.0 in the knowledge economy can promote higher education in Africa. Therefore, this paper will examine literature that looks at the necessity of higher education in Africa (knowledge economy, African higher education, Learning 2.0), and will examine how Learning 2.0 can positively influence higher education in Africa. I then examine key concepts (features) of Learning 2.0. Finally, I turn to an analysis of the Zambia GKI pilot project case study. This project shows how these concepts can be put into practice.

Growing Importance of Higher Education

Higher Education in a Knowledge Economy

During the second half of the 20th century, the development of information and communication technology has brought a wave of change in the history of mankind. This phenomenon was referred as the 'Third Wave' by Alvin [1]. The 'Third Wave' reflects the transformation of human development from a nomadic society to an agrarian society, into an industrial society, and finally into a post-industrial economy. Thurow& Cunningham (1999) [2] suggested that the 21st century is the era of the knowledge revolution, and that knowledge is the source of all individuals, companies, and countries to create wealth.

(Table 1) shows the characteristics of the knowledge-based economy compared with previous economic eras. This table shows how each economic element is approached differently within economic eras. Specially, it shows that the primary source of wealth and industry has changed and that knowledge has become the main resource in the second half of the 20th century.

	17th~ beginning of the 19th century (Feudal era)	19 to the second half of the 20th century (industrial capitalism era)	Since the second half of the 20th century (Knowledge-based economy era.)
A source of competitive advantage	Material resources	Industrial capital	Knowledge (human capital)
Main competitioncontent	Cost-competitive	Quality competition	Competition time
Key technology-based	Agricultural Technology	Industrial Science and Technology	Information and Communication Technology
The primarysourceofwealth, andthe mainindustry	Land-based economy. Agricultural and fishery products	Machinery, finance-based economy. Manufacturing	Knowledge-based economy. Finance, hospitality
Amount andspeedof Knowledge changes	Small amount Very Slow	Mass Long-term (one yearor more)	Amplifier Occasional short-term (change)
Growth principles	Limit growth	Restrictive limitgrowth	Sustainable growth
Economic activity space	Local economy	national economy	Global economy and the expansionofthevirtual space
Economic OperatingSystem (main value activities)	The feudal system and thestate-led (Bureaucratic)	National andenterprise-centric Antagonistic economic relations (Technician)	Enterprise-led Cooperative economic relations (Knowledge of the government, intellectuals, knowledge ofcompany)
Core functions ofthegovernment	Production and distributionof goods	Regulation and intervention	Support and knowledgecultivating

Table 1: Economic Paradigm of the Knowledge-Based Economy[3].

In the knowledge economy or knowledge-based economy, knowledge is the most meaningful resource, rather than the level of the traditional factors of production such as labor, land, capital [4]. Additionally, Peter Drucker used the term 'knowledge economy' in 1966 in the book The Effective Executive. Following his book, he separated knowledge workers and manual workers. He went on to describe manual workers as people who produce goods or services using their hands. On the other hand, knowledge workers produce ideas, knowledge, and information using their head (knowledge).

In other words, the knowledge-based economy means changing the main factors of production from labor, land and capital of the industrial economy to knowledge and information. This knowledge will be shared among members in conjunction with the organization's history and experience, and other resources will ultimately be replaced by knowledge [5].

Additionally, New Growth Theory offers an explanation of the movement from a resource-based economy to a knowledge-based economy. The most important feature of New Growth Theory, which is based on the knowledge economy, is that knowledge leads to growth. Because we can reuse and share knowledge and ideas constantly, knowledge can be used without restriction. Following New Growth Theory, the development of technology and knowledge finding is the most effective factors for the development of the country [6].

These characteristics are based on the knowledge economy. And the production, distribution and use of knowledge are directly linked to the knowledge economy. In addition, the knowledge economy can be defined as a visible trend of increasing investment in high-tech industries, high-skilled labor, and productivity gains associated with it. Therefore, higher education is an important input factor as knowledge is the most important economic resource in the knowledge economy. In the knowledge economy, the higher education system plays an essential role [7]. Therefore, manpower within higher education is a very important issue in this knowledge-based economy. Higher education has been recognized as a key driver for socio-economic development and human resource development.

Investment in education is closely related to quantitative and qualitative growth of national well-being. Many studies demonstrated that investment in education contributes to the growth of the economy [8-14]. In addition, investing in education, as well as quantitative indicators such as economic growth, have a positive effect on the development of qualitative indicators that determine the social, health, life, citizenship, crime, poverty, and national competitiveness in the non-monetary area [15-18].

Higher Education in Africa

African countries need higher education for the sustainable development of the knowledge economy. International organizations

such as UNESCO, the World Bank, the European Union and the African Union expect that it would be difficult for the sustainable development of developing countries without higher education systems [19]. Nevertheless, the higher education enrollment rate is increasing, but still very low. Most African countries have a poor level of quality in higher education services due to a lack of resources and support for higher education [20].

A significant portion of students attend publicly funded institutions in developing countries, but funding is insufficient. Specially, the higher education system is being less focused than other educational areas [21,22] proposed two problems for Africa higher education. First, there is no linking of higher education to local problems. Second, even though there is some funding for primary and secondary education, higher education is poorly supported. In 1995, public support for higher education in sub-Saharan Africa, East Asia and the Pacific, and South Asia was only 2% to 3% of GDP [23]. Specially, the government has difficulty in supplying the primary, secondary, and higher education systems due to the environmental change and political and historical conflicts in Africa [24]. Additionally, numerous studies suggest a close correlation between higher education and economic [25-27].And [28] study pointed out that the investment in education for developing countries has mainly focused on primary and secondary education. They emphasized the importance of higher education for poverty reduction and economic development in developing countries.

However, although African countries need more higher education population, there is lack of higher education in Africa countries. There exists a significant disproportion of the higher education enrollment between industrial countries and developing countries as shown in (Figure 1).

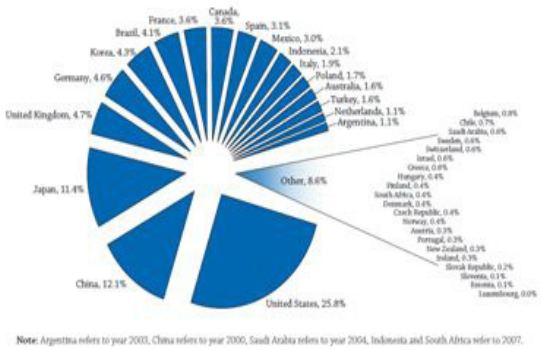

Figure 1: Countries' Share in the total 25-64-year-oldPopulationwith Tertiary Education Percentage (2009)[29].

African countries' share in the total 25-64-year-old population with tertiary education percentage is only 0.4% in the world. With the exception of South Africa,African countries did not represent even 0.1% of tertiary educated populations of the world. Knowledge and creativity is important for information-based economy. Therefore, number of top ranked universities is more important than the number of universities in the country. But, on the basis of top 400 THE(Times Higher Education) World University Ranking in 2012-13, Africa countries have no universities in the top 400 universities list exempting South Africa's four universities.

Learning 2.0 as a New Learning Theory for the Higher Education

What is Learning 2.0

Development of technology enabled the emergence of Web 2.0. Web 2.0 changed the internet environment from passive production to active participation, and contributed to the spread of e-learning 2.0. Learning 1.0 was the teacher-centered learning method from the past, whereas Learning 2.0 is a learner-centered learning method emphasizing interactions of teaching and learning [30] (Table 2)shows this contrast.

(e-)Learning 1.0	(e-)Learning 2.0
Learning Platform & Learning Management Systems (LMS)	Personal Learning Environments (PLEs)
Acquisition processes	Participation processes
Multimedia (interactivity)	Social networks / Communities of Practice (CoP)
Externally provided content	User-created content
Curricula	Learning diaries/e-portfolios
Course structure	Communication
Tutor availability	Learner and peer interaction
Quality assessed through experts	Quality assessed through learners and peers

Table 2: (e-)Learning 1.0 to (e-)Learning 2.0[31].

Learning 2.0 is providing a new educational experience for learners [32]. Inthe learning 2.0 environment, the learner's learning Personal Learning Environment (PLE) becomes an important tool for learning. At the same time the Learning Management System (LMS) is expanded. Free and Open Source Software (FLOSS) and Open Education Resources (OER) are critical components [33].

Specially, social learning networks are being activated. Learning 2.0 is changing the awareness and the way of learning. Web 2.0 allows building a database of learning materials in cooperation with students[34]. Additionally, Learning 2.0 can promote the expansion of the existing higher education system using many tools that are simple, often inexpensive and easy to deploy. First, technology development supports the distribution of higher education in the Learning 2.0 era. Researches on the higher education using digital devices are showing a snapshot of the current higher education and the current situation of e-learning for higher education[35,36]. The learning environment using smart phones and tablets has played a pioneering role for the Ubiquitous Personal Learning Environment (UPLE)[37]. Using a mobile system, various attempts have been made that can provide the learning content to students[34]. M-learning is not expensive and is not technically complex. Therefore, using wireless networks, an extension of the existing higher education system can be facilitated [38].M-learning can be a pioneering role for the configuration of UPLE in the Learning 2.0 era. Secondly, educational systems which integrate

Learning 2.0 create a learner-centered LMS environment. In the existing system of higher education, LMS has mainly focused on the educator-centered education, efficiency, and course management. However, in the era of Learning 2.0, the Social Learning Management System (SLMS) and Personal Learning Environment (PLE) is becoming more and more important. And the use of Open EducationalResources (OER) presents a new model for learning in higher education. These innovations are also presenting open and collaborative educational practices [38]. Learning 2.0 and Social Learning make it easier to construct a Personal Learning Environment (PLE)[37].

Thus, we can summarize the Key concept of e-learning 2.0 as follows.

- Free and Open Source Software (FLOSS)
- Open Education Resources (OER)
- Learner-Centered Emphasis
- Personal Learning Environment (PLE)
- Social Learning Management System (SLMS)
- Extended Learning Management System (LMS)
- Open, Collaborative Educational Practices (OEP)

The Global Knowledge Institute

These Learning 2.0 elements can be found in the GKI (Global Knowledge Institute) pilot project. The GKI pilot project was financially supported by the NRF (Korea National Research Foundation) and implemented by a research team at SNU (Seoul National University) from October 1, 2011 to September 30th, 2012, and from October 1, 2013 to September 30th, 2015. GKI is the first initiative supported by The Global Knowledge Alliance (GKA). GKA was designed to: make higher education more relevant to poor countries; make higher education more affordable for poor countries; provide a more sustainable alternative or other private higher education systems; link higher education to community and local development.

The Global Knowledge Alliance (GKA) is an idea of a sustainable system of knowledge exchange. In a networked, dynamic world where rich and poor worlds depend upon each other for political, economic, financial, ecological, health and social stability, the exchange and building of knowledge is key. The Global Knowledge Alliance is built on the idea that this exchange of knowledge has value and that value is a resource that can be used to build an economically sustainable system of higher education, a valuable research system and a resource for communities to build sustainable development. Built on the notion of knowledge economics applied through social network theory, the internet and new learning theory, an alliance between Zambia and Korea, but expanding to professional else, an innovative idea is being built. The Global Knowledge Alliance will eventually be composed of several innovative units, but its first effort is a research center and higher education pilot project. The higher education pilot project is in Zambia but will expand to several other countries.

Source: GKA [39]Global Knowledge Alliance.

The most important concept of GKA is the Knowledge Resource Value Chain. Knowledge of the local villages had generally been given little value in the global world. The relationship between global knowledge and local knowledge was a top-down relationship rather than mutually-beneficial relationship. The world, however, is growing more closely linked due to the transportation, communication, trade and technology linkages. Local problems related with health, environmental, political, social, and economic issues can create other problems in the global community, or show the same problem in other regions. In order to solve this problem, each region and the global community have to pay the costs.

(Figure 2) shows that, in the GKI, knowledge flows two-ways. The GKI connects global world knowledge with local village knowledge. The various events or circumstances in the local village are collected and analyzed by the GKI students' local units as a first step in the flow of knowledge. GKI local unit means a single GKI institute visits dozens of local communities to build local data. In addition, accumulated data of GKI local units will be collected again and analyzed by the GKI central and institute levels as a second step in the flow of knowledge. In this figure, one of most important things is that GKI data is highly connected and based with each local community. Additionally, this database can be distinctive with the data of international organizations as it mainly focuses on local communities rather than at country level data. In this way, global experts gain practical and theoretical insights about regional trends. But, equally important, local GKI students and researchers participate in the process of solving local problems with the local context and adopt global knowledge to local conditions. The data can also be applied to local communities to help them build local solutions. The GKI network two-way flow of knowledge network adds value to all participants by recognizing that local and global knowledge can be combined to have value and knowledge creation has value as well as knowledge banking.

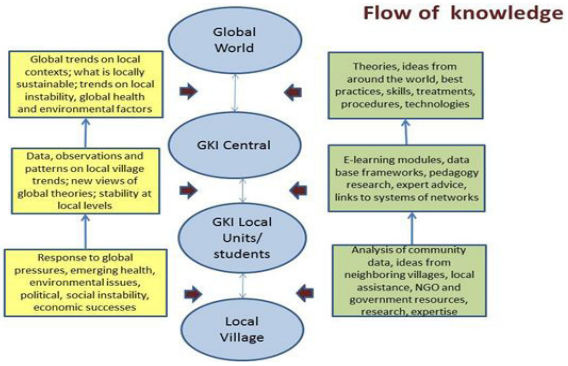

Figure 2: Flow of Knowledge[39].

Eventually the knowledge produced through the interaction of global knowledge and local knowledge has real value. And the value of knowledge can be exchanged in its purest form rather than the one-sided flow of value. Finally, this knowledge exchange is helpful in reducing the cost of a local GKI higher education as seen in(Figure 3).

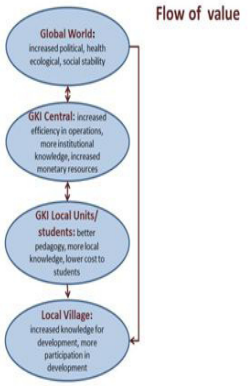

Figure 3: Flow of Value[39].

Additionally, (Figure 1) shows that each unit in the GKI system has a different role. Each unit will produce something of value, and this value formation is organically connected with each other. The flow of this value formations not a one-way flow but a two-way flow which makes it possible to create value with each other. Eventually, this interactive flow of value contributes to the sustainable development of local communities. This value creation brings benefits that do not have to be converted to monetary form - thus reducing the monetary burden of learning and the institutional cost of the GKI. Each unit can be examined through this lens

Local

The GKI concept can help communities to build their ability to work with larger networks of resources, people and organizations. And local and global organizations can share opportunities to build new ideas in a networked, collaborative environment. First of all, local communities can benefit from increased learning potential, local and global networks as partners, and planning, negotiation and networking skills. Additionally, local communities would contribute to indigenous knowledge and mechanisms, local resources and people, and a willingness and commitment for their sustainable development. Local communities would create value within the local-global network by supplying enhanced expertise from indigenous perspectives in development, creating a hospitable environment for students and research experts, managing resources indigenously, and implementing community projects for sustainable development.

Student Learning

Local students can benefit from a higher quality education, better career prospects, skills in using technology to build new knowledge, and exposure to global networks. They can also learn how to connect with the rest of the world using 21st century digital technology, and how to apply global skills in local communities. Additionally, students would contribute to academic knowledge in various fields of studies, and also with work and industrial experiences in various sectors. Therefore, GKI students can offer contribute value in terms of global networking. They can develop the relationship amongst institutions, communities and organizations. They can also develop documents and learning processes in and with communities and the GKI. Finally, they can implement project designs with community members for local community progress.

Global Revenue and Research

The global world can learn from local communities as local, regional and global understanding of networks becomes part of community resources. Global professionals can also benefit from opportunities to work with local students and communities, research networks, and are provided with a chance to rethink the curriculum in a creative, innovative environment. Additionally, it is also notable to focus on research results in the project. During the project period, a total of 14 papers related to the project have been released (Table 3). Participants can be divided into professors, research students from Korea and local students.

GKI external experts (Professor) paper (8 papers)	Ilon, Lynn and Altmann, Jorn (2012) Using Collective Adaptive Networks to Solve Education Problems in Poor Countries
	Ilon, Lynn (2012)[40]Integrating New Learning Theories Into a web-Based System of Learning
	Ilon, Lynn (2012)[41]Global Networks Bring Locally Relevant Higher Education to Poor Countries
	Altmann, Jorn (2012)[42] Designing Locally Relevant Curriculum in Poor Countries: A Collective Adaptive Approach.
	Ilon, Lynn (2011)[43] The Economics of Knowledge applied to African Community Learning
	Ilon, Lynn (2011)[44] How Collective Intelligence Redefines Education J. Altmann, U. Baumöl, B. Krämer, (Editors)
	Ilon, Lynn (2011) The Economics of Knowledge Applied to African Community Learning.
	Ilon, Lynn and Constantine Malama (2010)[45]Fostering community-based learning leadership: A Korea–Zambia project design

GKI project participating students from Seoul National University paper (2 papers)	Won, So Hee (2012)[46] Analysis on the research environment for faculty members of the University of Zambia 잠비아대학의교원을위한연구환경현황분석
	Zang, HaeYong (2012)[47]Analyzes the relationship between graduate research papers of Department of Development in the National University of Zambia and the Zambia national development goals. 잠비아국립대학교개발학과대학원연구논문과잠비아국가개발목
GKI project participating researcher and students local paper (3 papers)	Kantini, Mzizi and Ilon, Lynn (2013) Universities as Leaders in Community Development: The Case of Zambia, in Anthony Normore and Nancy D. Erbe (eds); International Perspectives on Leadership Development: A Multidisciplinary Approach. Bingley, UK: Emerald Group Publishers.
	Anthony Kabwe& John Shawa[49]State of the Community Project

Table 3: Papers Related to the Project Outcome.

Specially, (Table 3)shows that the subjects that students approached were different from those of the professionals. The global professor level offers a comprehensive approach based on a global perspective. But the subject of local students is approaching the local level based on local issues. And the strength of local student papers was the bottom-up approach based on the local community. This demonstrates the potential that can be developed through the sharing of knowledge between a global perspective and a local perspective. The unique approach taken by global professionals in the past may be limited to solving local problems. This local perspective can once again be addressed from a global perspective. Finally, this GKA system can improve the quality of the local universities through joint regional research between global knowledge and local knowledge. Additionally, we can see the quantitative comparison between the GKI pilot project and SNU.

GKI's Learning 2.0 Contribution toHigher Education in Africa

Current theories on Learning 2.0 help us to understand how to apply Learning 2.0 with education. But such an approach has been mainly focused on developed countries. But Learning 2.0 is a new learning revolution that helps us to learn more effectively-even in the case of developing countries. The GKI case study showsthat learning 2.0 in a knowledge economy can promote African higher education. It helps to reduce the cost of higher education for developing countries and provides improved learning experiences that are locally relevant. GKI also provides a new higher education system that is economically sustainable for developing countries using the concept of knowledge economics, collective adaptive systems, social network theory and new learning theory. (Table 4) compares recent e-learning programs with curriculum innovations elements of GKI's Learning 2.0.

Concept	**Learning 1.0**	**Learning 2.0**	
	Characters of Existing E-Learning	**Characters of GKI Pedagogy and Modules**	**Learning 2.0 elements from GKI project**
Source of content	Lecturers/ books/ identified expert sources	evolving web content	Free and Open Source Software (FLOSS) Open Education Resources (OER)
Use of experts/professors	Experts as knowledge deliverers	Experts as knowledge organizers	learner-centered emphasis
View of knowledge	Knowledge as finite and stable	Knowledge as evolving and dynamic	Open, collaborative educational practices (OEP)
Learning process	Unidirectional - from teacher to student	Networked - all sources learning from each their	Personal Learning Environment (PLE)
Role of teachers and students	Separate roles	Trading spaces; sharing knowledge; potentially building knowledge together	Social Learning Management System (SLMS)
Validation of knowledge	Validated by institutions	Validated by authors, crowd sourcing or institutions	Social Learning Management System (SLMS)
Source of valid knowledge	Experts delivering facts and views	Diverse sources including experts, facts and views validated in a variety of ways	Free and Open Source Software (FLOSS)
Location of knowledge building	Academia, research centers, R&D mostly in wealthier countries	All sectors, all peoples all over the world	Open, collaborative educational practices (OEP)

Impetus for content development	Academic content and advancement; profit; glory	Academic, professional, personal, institutional, industrial, social, national, humanitarian, values, glory, profit, advancement and passion	Social Learning Management System (SLMS)
Goals of recent research on learning and e-learning	More efficient learning of given materials; reduce cost of higher education; profit; spread given knowledge more broadly	Develop means of including marginal populations in new learning networks; turn diverse learning sources into resource that reduces cost of education and improves quality of their education	extended Learning Management System (LMS)
General approach to e-learning; m-learning	Efficient use of technology for content delivery; match technology with existing content	Build collective-adaptive software to capture dynamic learning environment of global learning population	Open, collaborative educational practices (OEP)

Table 4: e-learning 1.0 vs GKI

(Table 4) shows how GKI pedagogy and modules differ from the existing e-learning systems. Characteristics of GKI pedagogy and modules can be connected with elements of Learning 2.0 This is especially the case with those GKI Learning 2.0 elements which are factors thatlower the cost of higher education in developing countries. Another element of GKI that could reduce the cost of higher education and is related to Learning 2.0 is a design that is still being worked on. It involves a modified open-source way of building curriculum as shown in (Figure 4).

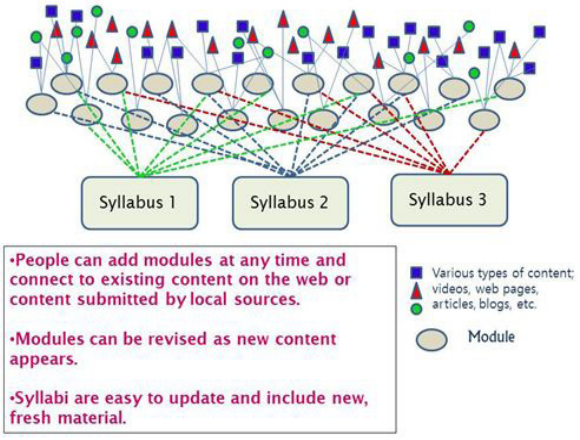

Figure 4: Module and Syllabus of GKI[39].

Since all information in the various modules will be open education resources there will be no copyright issues. Open Education Resources (OER) data will be used by default. Each module includes a variety of materials (articles, web pages, video, data, blogs, etc.) and will be available for one class but can be used across many GKI as the method is replicated in other countries. The modules are configured together as a group to form a course or syllabus. After that, students discuss the given contents and work together in order to build Open, Collaborative Educational Practices (OEP). In contrast, (Figure 5) shows a critical path to building schools in developing countries which was carried out in 2011 by Korea International Cooperation Agency (KOICA). This critical path model shows the need and procedures to establish a school in developing countries. The main issues were the budget, recruitment of instructors, student selection, teacher training, buildings & facilities, equipment and curriculum development.

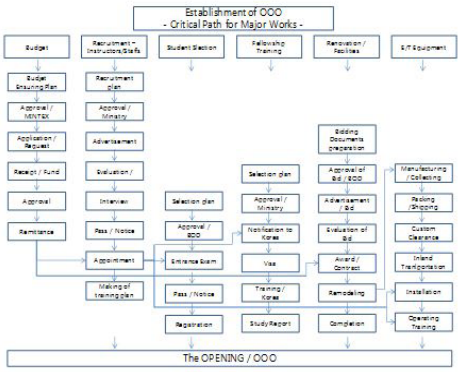

Figure 5: Critical Path for Opening Institute[50].

This critical path approach, following a top-down, knowledge-delivery model of traditional schooling is enormously expensive. The major cost in the process of opening a new institute in developing countries can be summarized as follows:

- Cost of the school building & facilities
- Cost of recruiting professional instructors
- Cost of developing qualified curriculums
- Cost of tuition at the student level

Using a GKI model of Learning 2.0, emphasizing knowledge creation and networks of knowledge creation, costs a substantially reduced (from the critical path model) and learning is more dynamic. (Table 5) summarizes the GKI model.

GKI Contributions	Related Concepts of Learning 2.0	Reduction of Knowledge Delivering Cost
Cost Effectiveness	Personal Learning Environment (PLE)	Cost of the school building & facilities
	Free and Open Source Software (FLOSS) Open Education Resources (OER)	Cost of developing of qualified curriculums
Accessibility of Students	Personal Learning Environment (PLE) learner-centered emphasis	Cost to pay fees at the student level
Quality Development	Open, collaborative educational practices (OEP) Open Education Resources (OER)	Cost of recruiting professional instructors Cost of developing of qualified curriculums
Local Network Development	Social Learning Management System (SLMS) extended Learning Management System (LMS) Open, collaborative educational practices (OEP)	Cost of developing of qualified curriculums
North-South Network Development	Social Learning Management System (SLMS) extended Learning Management System (LMS)	Cost of recruiting professional instructors

Table 5: Contribution of GKI for Africa Higher Education.

The GKI concept usesLearning 2.0, contributes to the expansion of higher education and reduces the cost of knowledge delivery for developing countries.

Conclusion

There are several critical limitations of the GKI project. First, it is a pilot project. In order to demonstrate more tangible achievements, initial investment and time is needed. Second, there has been an issue raised as to whether the higher education labor market is strong enough in Africa to accommodate students who have completed higher education. But this part is not a problem which requires a reduction of the higher education workforce. Highly educated human resources in developing countries not only have the role of supplying the existing labor market. Highly educated human resources can play a strategic thinking role tailored to the local and the global situation in developing countries and they are the driving force to open up new markets. Additionally, better and more graduates can help to expand the economy. Therefore, developing countries need to question to what extent human resources in higher education will be needed to secure national development in the future.

Third, the biggest problem for expanding the growth of the higher education system is the cost. But higher education costs can be substantially changed it the methods of learning, knowledge creation and networks are allowed to be rethought. Each element of the higher education system can be analyzed and reduced in cost. Efforts have to be accompanied steadily to reduce costs and ensure quality for sustainable development in African higher education. The major cost in the existing education system is school buildings and facilities, recruiting professional instructors and developing curriculums. In addition, there is a cost to pay fees at the student level. Actually, this is the result of knowledge delivering costs. The GKI model may not work for all cases of higher education, but it is a system which would likely work for many subject areas. GKI practices which integrate Learning 2.0 help to lower costs through the efficient flow of knowledge. In addition, it can be seen that local students pay for tuition fees through the production of local knowledge.

In conclusion, three statements can be made by connecting Learning 2.0 in the knowledge economy and African higher education. First, higher education in developing countries is marginalized. But the promotion of higher education is essential for national development and human resource development in the knowledge economy. Second, characteristics of Learning 2.0 can be used to promote African higher education. Third, higher education through Learning 2.0 raises the possibility of sustainable development for higher education in Africa. Eventually, the concept of the GKI project shows that elements of the Learning 2.0 in the knowledge economy can help to spread higher education in developing countries.

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