Chapter 10
South Korea

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Introduction

There has been significant growth in distance education (DE) in the Republic of Korea since the Korea National Open University (KNOU) was established in 1972. Today a variety of distance education courses are offered by KNOU, seventeen cyber universities, and traditional universities. The recent government initiative to establish K-MOOCs (Korean MOOCs) is providing Korean learners with more choices in distance learning (MOE of Korea, 2015a). In particular, Korea has demonstrated successfully how a national internet infrastructure can strengthen distance education, particularly in the light of the impact of the national *informatization strategies* for distance education which were launched in 2000 (KERIS, 2013).

This chapter offers an analysis of distance education in Korea, as a model for developing countries to catch up with advanced countries in meeting the demand for higher education. First, we analyze the functions and roles of distance education in the higher and lifelong education sectors in Korea. Second, we present a brief review of the history of distance education in Korea, followed by the characteristics of distance education offered by the Korea National Open University (KNOU), cyber universities and traditional universities that offer distance and online learning. Third, we examine major legislation and policies, including the Higher Education Act, to highlight efforts that have been made to ensure the quality of distance education. Lastly, we make closing remarks about future directions and challenges of distance education in the higher and lifelong education sectors in Korea.

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Functions and Roles of Distance Education in Korea

Distance education plays a major role in Korea in making higher education widely available, particularly for the purpose of lifelong education. Since 2000, the university admission rate has reached more than 79% of high school graduates. Due to generalization of higher education, it allows people accustomed to entering of higher education through distance education. Most distance education programs focus on people who enter university after starting their careers, rather than those who have recently graduated from high school. Students who are 26 years or older make up 81% of the total student population in distance universities (MOE of Korea, 2014). More than 50% of the student population in distance and cyber universities pursue additional higher education after completing an associate's or bachelor's degree, by registering as transfer students (Jung, Park, & Jung, 2010; Hwang, Lee, & Nam, 2015). As Fig. 10.1 depicts, transfer students have increased gradually. This shows that more and more adult learners are participating in extended higher education programs at KNOU or cyber universities.

The current state of distance education in Korea has evolved from fully distance education institutions for adult learners who were not the target of traditional universities. KNOU, a public distance education institution, was established in the 1970s, and has been steadily providing opportunities for higher education to adult learners who did not have easy access to traditional universities. KNOU offers programs in traditional academic fields such as literature, law, and education, with a fee that is

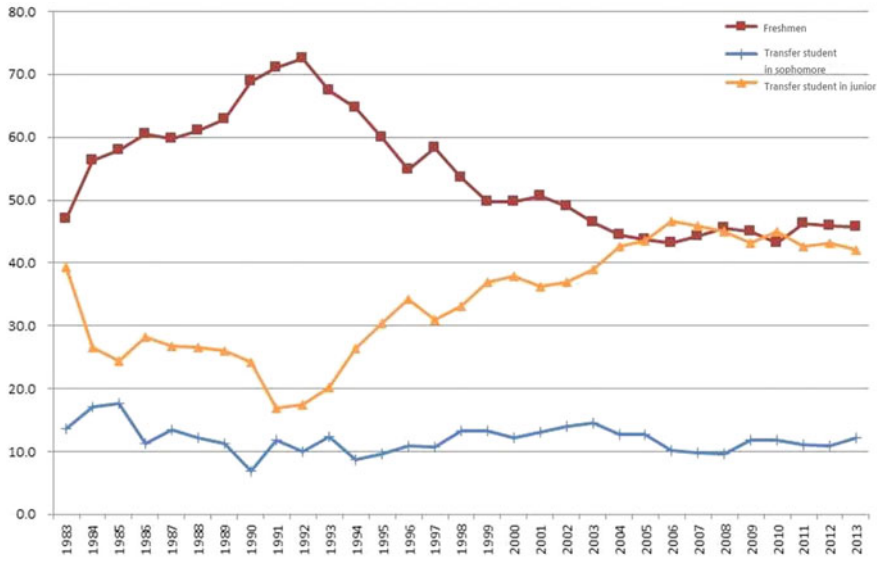

Fig. 10.1 Student popoluation in KNOU (Hwang et al., 2015)

Table 10.1 The student population of KNOU and cyber universities (Ministry of Education, Korea, 2016)

University	2010	2011	2012	2013	2014	2015	2016
Korea National Open University	272,452	268,561	254,652	245,257	227,618	214,347	184,074
Cyber Universities	93,297	103,917	106,080	109,673	109,466	111,924	114,496
Total	365,749	372,478	360,732	354,930	337,084	326,271	298,570

one third of that at cyber universities. As of 2014, KNOU had a total enrollment of more than 140,000 students (KNOU, 2014).

Cyber universities, which came into existence in 2001, have grown in number, with 17 cyber universities and two cyber colleges across the country as of 2016, with a total number of 114,496 registered students (MOE of Korea, 2016). Cyber universities offer fully online programs in sophisticated fields such as *information security management*, which reflects the characteristics and needs of an information society, and *design engineering* which mirrors the development in the field of Information and Communication Technology (ICT). Some existing traditional universities launched their own cyber universities in order to respond to the increasing demand for higher education. In the process, the number of student enrollments at KNOU has declined since 2010, while cyber universities have seen a rise in their enrollments (Table 10.1).

Since 2011, distance education practice in Korea has affected the functioning of traditional universities, with new educational methods such as massive open online courses (MOOCs) and 'flipped learning'. In addressing their social responsibilities, traditional universities have been contributing to the open courseware (OCW) movement and have developed their courses as KOCW (Korean open courseware). Such courses are supported by the Korean government for the public access. KOCW has been funded by Ministry of Education. In addition, from 2012, some universities made attempts to offer their online courses free of charge to the general public through university's funding. For example, such efforts have entered a new phase with the introduction of MOOCs by Seoul National University since 2013. K-MOOCs (Korean MOOCs)[1] were launched by Ministry of Education, Korea in 2015, with 20 free courses offered by 10 universities across the country. K-MOOCs have been financially supported by Ministry of Education and 10 universities. This distance education initiative awards students a certificate of completion at the university providing courses. This development marks the start of a new service offering in the distance education systems of traditional universities. It appears that this service will continue to expand depending on future support that may be provided by the government.

The interest of traditional universities in distance education has continued to grow with the advent of flipped learning. This teaching and learning innovation (which is

[1] http://www.kmooc.kr/.

called flipped classroom) is a method whereby learners are required to watch online video clips on the relevant subject matter before they attend a class (Bergmann & Sams, 2012; Han, Lim, Han, & Park, 2015). To this end, traditional universities have started making efforts to systematically publish and implement their existing courses online. Moreover, they endeavor to re-construct online courses with innovative teaching and learning model. Thus, these educational trends enable wider applications of existing theories and research findings of teaching and learning methods for distance education (Lee, Lim, & Kim, 2016). To sum up, distance education in Korea has become one of the pillars of higher education, even bringing changes to teaching and learning in traditional universities.

History of Distance Education

The distance education sector in Korea has progressed since the 1970s with increasing equity for higher education opportunities (Jung & Rha, 2006). As a result, distance education has not only increased opportunities for higher education within Korea, but is also advancing into the global arena of distance higher education (Lim, 2011; Rha, 2015; Shin, 2007). Four major development stages of distance education in Korea can be identified: *Introductory, Expansion, Rapid Growth,* and *Globalization* stages, each of which is discussed below.

Introductory stage: The first stage of distance education began in 1972 when the Korea National Open University (KNOU) was established, and continued until 1983. It was marked by *correspondence education* using postal services and *mass communication* by means of radio and television. During this period, terms such as *correspondence education* and *open education* were used within the KNOU establishment.

Expansion stage: The second stage of distance education was the period between 1984 and 1994 when distance education via radio and television was widely used. During this period, the term *distance education* emerged. The *Korea Distance Education Association* was launched in 1990, followed by the first publication of its journal in 1991, which set the stage for research into distance education.

Rapid Growth stage: The third stage of distance education was the period from 1995 (when the Internet emerged) to 2009, with explosive growth of opportunities for alternative higher education using computers and the latest digital technologies. Seventeen cyber universities were established and their accreditation, operation and evaluation were formalized. Traditional universities launched virtual campus initiatives. During this period, the base of higher education offerings through KNOU was broadened, providing equal higher education opportunities to the population. Moreover, in this period not only was a DE teaching and learning system introduced, but technical, legal and institutional systems were put in place, along with organizational changes in the higher education system. The Ministry of Education and KERIS-Korea Education and Research Information Service (2004) led the rapid growth of distance education during this period by launching the Korea Multimedia

Education Center in 1997, and assisting traditional universities to introduce virtual campuses. The Ministry of Education encouraged the establishment of cyber universities on the basis of the Lifelong Education Act and the Higher Education Act, which were enacted in 2001 and 2009 respectively.

Globalization stage: The fourth stage of distance education is the period between 2009 and today, during which distance education institutions and traditional universities, led by the government, contribute to society by offering distance education content in the form of Open Courseware (OCW) and MOOCs, thus expanding educational opportunities globally. Korean distance education, in the form of KOCW and K-MOOCs, is now available not only to the Korean general public, but to people all over the world. Such open access to content via distance education blurs the barriers between institutional education and lifelong education, by allowing high-quality educational content to be developed and distributed globally. In addition, in terms of delivery media, the period marks a sudden expansion from using PC-based internet access, which had been the norm in distance education, to mobile devices. The period also enables ubiquitous learning to take place in ever more accessible learning spaces.

The following three historical features of distance education in Korea are noteworthy. First, the introductory stage of distance education in Korea achieved in just over ten years what had taken about one hundred years to achieve regarding DE in the West. The evolutionary stages of DE (Moore & Kearsley, 1996) took place in Korea between 1972 and 1983 at full tilt, centered on radio and correspondence modes at the same time, rather than firstly mail correspondence followed by joint delivery via radio and correspondence. This is attributable mainly to the establishment of KNOU and the leading role it has played in the history of distance education.

Second, government policy and legal frameworks have been the driving force behind the expansion, rapid growth and globalization of distance education in Korea. The Ministry of Education and government-affiliated organizations took an approach to the introduction and spread of distance education that improves the people's right to higher education by expanding educational opportunities at the national level.

Third, from the early days, Korea's higher education institutions have been diversified with the establishment of various formal distance institutions, including degree-granting DE universities such as KNOU and seventeen cyber universities, with the goal of popularizing higher education. Additionally, students with a college degree have increasingly entered distance education institutions.

Major Teaching and Research Institutions for Distance Education

Korea has come to have a collection of diverse distance education institutions, thanks to rising aspirations for higher education and the demand for job retraining after employment. There are three kinds of institutions for distance education in Korea: an open university (KNOU), a cyber university, and an online course of traditional

university. The Korean government has been active in promoting distance education at KNOU, cyber universities, and traditional universities through its informatization projects (KERIS, 2013). Since 2001, degree-granting distance universities are 19 institutions including KNOU, and almost all of traditional universities have provided distance courses for lifelong learning. As a result, there has been quantitative growth of distance education institutions within a short timespan.

The following sub-sections present short descriptions of KNOU, cyber universities and some traditional universities that offer distance online courses in Korea.

(1) **Korea National Open University (KNOU)**

The Korea National Open University (KNOU) is one of the ten mega distance education universities in the world (Daniel, 1996; Jung, 2005). Since its establishment in 1972, it has been offering undergraduate, graduate and non-degree programs. The undergraduate programs are offered by 22 departments in four colleges (humanities, social sciences, life sciences, and education), and the graduate programs are offered by 18 departments. KNOU offers more than 800 courses each year, and employs 148 full-time faculty members, 530 full-time staff, more than 3000 part-time lecturers and tutors, and 54 media production professionals.

During the 1990s, student enrollment numbers at KNOU increased every year. However, KNOU now finds itself in trouble since enrollment figures have been dropping sharply since the 2000s. Over the six years from 2009 to 2015, the number of student enrollments in undergraduate programs fell by around 40,000 (approx. 21.8%) from 183,503 to 133,385 (Hwang et al., 2015). As a result, KNOU is now focusing on trying to maintain the current number of registered students, rather than anticipating a steady drop in the future (Table 10.2).

There are three possible reasons for the declining number of student enrollments. The first reason is the high number of dropouts. In particular, many new students drop out in the first semester (Hong, Kwon, & Lee, 2004)—according to the 2008 statistics, this figure was 39.4%. KNOU has paid attention to the dropout issue and tried to solve it since its establishment. Choi, Lee, Jung, and Latchem, (2013) found that student perceptions of the value of a degree determine the possibility of dropping out. Therefore, flexible curricula and programs need to be in place to satisfy the educational needs of learners as they progress through their studies.

The second reason for falling enrollment numbers is that the educational needs of learners who may wish to enter KNOU are changing, and KNOU does not necessarily satisfy these needs (Hwang et al., 2015). In fact, even though the number of graduates has been steadily growing (with 24,000–25,000 students graduating every year), the

Table 10.2 Undergraduate enrollments at KNOU from 2009 to 2015 (Korea National Open University, 2015)

Year	2009	2010	2011	2012	2013	2014	2015
Enrollments	183,503	178,688	172,680	160,600	155,620	142,332	133,385

Table 10.3 Number of new students and enrollments at cyber universities from 2011 to 2015 (Ministry of Education, Korea, 2015b)

Year	2011	2012	2013	2014	2015
New Students	29,043	29,209	17,254	30,455	31,173
Total Enrollments	94,441	96,060	99,246	99,107	102,645

In accordance with the 2013 statistical guidelines for higher education, the number of junior transfers was excluded from the number of new students in 2013, hence the huge drop from 2012

number of new students has been in such decline since 2009. It leads to a net reduction in the total number of enrollments.

The third reason for falling enrollment numbers is competition from cyber universities. The enrollment numbers at cyber universities have increased (see Table 10.3), while the number of new students entering KNOU have decreased. It is clear that the reduction in the student number at KNOU is due to a move to cyber universities.

KNOU has a lower tuition fee per semester by around 300 U.S. dollars compared to other distance universities. This low tuition fee has attracted many students, and has been an important source of revenue. In fact, since the percentage of KNOU's dependence on tuition for revenue is very high (66.8%), the drop in enrollment numbers has a direct impact on the university's revenue (Ju, Nam, & Kim, 2013). Additional revenue sources are the government subsidy (25%), the university development fund (4.7%), and the university-industry cooperation fund (3.5%). Due to the drop in tuition fees, KNOU is now making efforts to increase revenue from other sources.

(2) **Cyber Universities**

Cyber universities are established by private organizations based on distance education models such as the one employed by KNOU. Anyone who graduates a high school can enter the KNOU, while cyber universities offer admissions only to qualified persons. The number of new students entering cyber universities is decided by the Ministry of Education.

Since the establishment of five cyber universities as part of government-led pilot projects in 1998, cyber universities have grown in number. There are now 19 cyber universities with the latest addition of nine more, which were accredited as higher education institutions in 2001. Undergraduate degree programs are offered by 17 cyber universities and Two cyber colleges have provided two-year college programs MOE of Korea, 2015a).

According to the 2015 White Paper on ICT in Education (MOE of Korea, 2015a), the number of students enrolled in cyber universities has been steadily increasing over the last five years. This upward trend reflects easier access to distance education with the development of Information and Communication Technology (ICT), Cyber universities offer curricula for skills that are required in the job market, includ-

ing certificates that satisfy the needs of learners in terms of retraining for their job requirements.

The annual tuition fee at cyber universities is approximately 2000–3000 U.S. dollars, which is only a quarter of that at traditional universities (MOE of Korea, 2015b). Although this makes cyber universities more accessible than traditional universities, they are more dependent on enrollment numbers to continue service.

(3) **Distance Education at Campus-based Universities**

There are two dimensions of distance education offered by traditional universities in Korea. The first is the e-learning, or the so-called 'university informatization' project which almost all traditional universities in the country implement at their Centers for Teaching and Learning. Traditional universities made e-learning online courses through this project. The second is the development of open courses such as OCW or MOOCs. The following present short descriptions of e-learning and open courses in traditional universities that offer distance online courses in Korea.

The Korean government established a five-year comprehensive plan for campus informatization called 'e-Campus Vision 2007' in 2002 and launched e-Campus Support Centers at universities in ten zones. e-Campus Support Centers has helped local traditional universities to develop and share online courses. The aim was to encourage the spread of e-learning by providing subsidies to universities to develop and utilize distance educational content together. Traditional universities undertake the development and implementation of online courses as part of this informatization project (Lim, 2011). Most of them now acknowledge credits gained in online courses offered among a group of universities. In addition, traditional universities support asynchronous learning in online discussion for blended learning via Learning Management System (LMS) providing learning materials.

Many online courses developed as part of the university informatization project have become available to the public since 2009, and now are being offered as KOCW, following the global OER and OCW movements. As of 2014, 203 distance education courses developed by universities across the country were published as KOCW (MOE of Korea, 2015a). Since the launch in 2015 of the five-year comprehensive plan for campus informatization, the Ministry of Education has been promoting the improvement of teaching and learning quality for higher education through projects such as K-MOOCs and flipped learning.

Regulatory Frameworks and DE Policies

Government-led policies have played an important role in the spread of distance education at higher and distance education institutions in Korea. Moreover, the Korean government moved quickly to put the necessary laws and regulations in place, along with implementing the various policies. Legislation related to distance education in higher education falls under the 'Higher Education Act', 'Lifelong Education Act', 'Framework Act on National Infromatization', and 'Act on Development of the

Table 10.4 Legislation related to distance universities in Higher Education Act (Ministry of Education, Korea, 2015a)

	KNOU	Cyber universities
Legal Grounds	Higher Education Act Article 2 Section 5 Decree on the KNOU establishment	Higher Education Act Article 2 Section 5 Private School Act Article 3 Regulations on Cyber Universities Establishment and Operation
Basis of Implementation	Enforcement Decree of Higher Education Act	Enforcement Decree of the Higher Education Act Enforcement Decree of the Private School Act
Degrees Offered	Bachelor's Degree Master's Degree	Associate's Degree Bachelor's Degree Master's Degree

E-Learning Industry and Promotion of Utilization of E-learning (Lee, Lim, & Lim, 2009).

(1) In addition, the basic policy framework for distance education has been updated every five years since 1996 in pursuance of the comprehensive plan for education informatization. At present, various government-led projects are underway in accordance with the fifth plan for education informatization (MOE of Korea, 2015a). To contextualize DE regulatory frameworks in Korea, the following are legislations related to the Korean distance education: Higher Education Act, Lifelong Learning Act, Framework Act on National Informatization, Act on Development of the E-learning Industry and Promotion of Utilization of E-learning.

(2) **Higher Education Act**

Distance higher education is related to the legislations of Higher Education Act, Private School Act, Decree on the KNOU establishment, and Regulations on cyber universities Establishment and Operation.

The Higher Education Act regulates distance education services in the higher education sector. The purpose is to achieve educational equity by providing opportunities for higher education through distance education using information and communication technology. As shown in Table 10.4, distance education institutions in Korea are largely divided into KNOU and cyber universities according to classifications laid down in the Higher Education Act. Both KNOU and cyber universities are permitted offer both undergraduate and special-purpose graduate programs in pursuance of Article 2 in the Higher Education Act and Article 3 in the Private School Act. Moreover, KNOU and cyber universities are approved by Decree on the KNOU establishment and Regulations on Cyber Universities Establishment and Operation.

Table 10.5 Legislation related to Lifelong learning offering DE (Ministry of Education, Korea, 2015a)

Legal Grounds	Lifelong Education Act Article 33, Section 3 Enforcement Decree of Lifelong Education Act Article 51
Basis of Implementation	Enforcement Decree of Lifelong Education Act Enforcement Decree of Higher Education Act
Degrees Offered	Degrees equivalent to associates' or bachelors' degrees

(3) **Legislation Related to Distance Lifelong Education**

Some educational institutions are categorized not only as distance education institutions that are under the Higher Education Act, but also lifelong learning institutions that fall under the Lifelong Education Act. According to Article 33 of the Lifelong Education Act, these institutions are permitted to provide distance education so that everyone can receive education anywhere, anytime. However, these institutions need to be accredited and evaluated by the Ministry of Education in order to accord their degrees the same recognition as associates' or bachelors' degrees (Table 10.5).

(4) **Framework Act on National Informatization**

The basic plan for education informatization has been updated every five years since 1996 in line with Article 6 of the Framework Act on National Informatization. Under Article 7 of the same act, the central and municipal governments make and implement relevant action plans each year, contributing to the spread and quality improvement of distance education. According to the Framework Act on National Informatization, the Korean government has been establishing and implementing the basic plan of education informatization every five years since 1996 (MOE of Korea, 2015a). At present, policies in line with the Fifth Basic Plan for Education Informatization are being implemented. In addition, various basic plans by area and group are being established and implemented. For example, the 'Comprehensive Plan for Campus Informatization' between 2015 and 2019 aims to improve user convenience for faculty, students and staff by promoting the joint use of information resources and supporting the integration of ICT to support the strengths of each university. The vision is to achieve high quality higher education through an advanced ICT infrastructure (MOE of Korea, 2015a).

(5) **Act on Development of the E-learning Industry and Promotion of Utilization of E-learning**

Moreover, in accordance with Article 17, Section 2 of the Act on Development of the E-learning Industry and Promotion of Utilization of E-learning, the Ministry of Education is empowered to provide the necessary support to promote e-learning, such as the development, distribution and use of e-learning content, building models of teaching and learning, conducting e-learning consultations, and establishing

an e-learning system. In addition, the Ministry of Education and heads of educational institutions are obliged by this law to work toward enhancing accessibility and convenience for socially marginalized people, while promoting e-learning. Articles 11 and 13 of the same act promote a certain level of e-learning quality with the establishment, revision of quality standards for the development of the e-learning industry.

Accreditation and Quality Assurance (QA) Systems

As a result of the significant growth in DE in Korea over the last few decades, the number of students in DE institutions has increased markedly. The quantitative expansion of DE has been a cause for growing concerns over the quality of DE programs and associated components, such as student support. The rationale behind the adoption of a QA system for DE is to ensure accountability and improve the quality of DE provision. Various stakeholders hold different views on the quality of distance education (Jung, Wong, Li, Baigatugs, & Belawati, 2011). Korean accreditation and quality assurance systems for DE acknowledge the distinctive features of DE, and accordingly apply specific QA procedures and criteria for DE, which are different from those used for traditional institutions.

There are three main systems which DE institutions in Korea implement to control the quality of distance education: accreditation, audit, and performance-based funding. Accreditation aims to ensure public responsibility for quality DE and the qualifications awarded by DE institutions. According to Jung and Latchem (2012), "[a]ccreditation is the process of external assessment and peer review that determines whether an institution (or program) qualifies for a certain status or to be recognized or certified as having met certain requirements" (p. 71). Academic audits aim to improve the quality of DE delivery. These involve both a critical self-analysis report and supporting documentation compiled by a DE institution, and an external review. The self-evaluation report is verified by means of an onsite visit by external experts who make recommendations for improvement. A subsequent monitoring process is also put in place. To stimulate competition within and between institutions, performance-based funding has been adopted, which ties public funding to the performance of an institution or a program. The outcomes of accreditation processes or academic audits are directly reflected in government funding decisions as well as the extent of administrative support provided by the government.

In Korea, all four-year universities (including KNOU) are required to conduct self-evaluations at least once every two years and submit their findings to the Korean Council for University Education (KCUE)—the only government-recognized agency allowed to accredit four-year universities. In the case of cyber universities, the Korea Education and Research Information Service (KERIS) monitors their quality programs every two years based on guidelines specified in the QA Framework for Cyber University Evaluation. These guidelines include evaluation of the following: vision, mission, values and goals; assessment and evaluation; educational resources; leadership, governance, and administration; IT infrastructure; financial resources; teaching

and learning; curriculum and course development; student support; faculty and staff; and research. The QA system in distance education in Korea places particular importance on the IT infrastructure of an institution.

In the past, KERIS managed a national QA system to control the quality of e-learning content in secondary, lifelong and teacher education institutions. However, this was suspended in 2015 due to amendments made to the relevant laws.

Conclusion: Challenges and Future Directions for Distance Education in Korea

Distance education in Korea has developed rapidly and successfully to meet the demand for higher education. It has the potential to show a model for developing countries to leverage distance education for social and economic development. Since the KNOU was established in 1972, distance education has contributed to the expansion of higher education opportunities. Korean government and practitioners have made efforts to improve the equality of higher education and emphasize the innovations of distance education methods.

However, distance education in Korea is also facing unique challenges for the future development. Challenges that Korean distance education faces and related future directions can be categorized into three areas: lifelong learning, accessibility, and globalization.

First, the distance education system in Korea should pave the way for a so-called 'higher lifelong learning system' (Nam & Kim, 2013). Much of the demand for higher education which had been triggered by rapid industrialization in Korea, was met by KNOU until 2000. From 2001, ongoing demand has been actively met by private cyber universities and colleges that were established to respond to the challenges and demands of an information society. Since 2015 when traditional universities faced rapidly declining student enrollment, they have begun offering distance education opportunities to adult learners in terms of lifelong learning. In other words, as traditional universities offer distance education alongside existing full distance education institutions, the higher lifelong learning system should be ushered in by various stakeholders in the field. In that sense, it is desirable to offer a learning curriculum to meet individual learner needs.

Second, future distance education in Korea needs to be open for more learners than before. Current distance universities in Korea select their students according to the policy of the Ministry of Education which controls the number of new students (Lim, 2015). Furthermore, the pre-determined degree granting system can become barriers to the enrolment retention of distance learners. Therefore, Korean distance education should make higher education more open and more flexible to meet individual learners' needs. A potential solution could be the integration of MOOCs into distance education. The K-MOOC service first emerged in Korea in 2015. Currently limited number of K-MOOC courses provide the certificates of completion. The number of

certificates granting courses are expanding, which implies the potential for diploma granting K-MOOC program. Such distance programs will play an optimistic part for higher lifelong learning in Korea.

Third, Korean distance education needs to reflect its global needs. While more and more students outside of Korea are coming to Korean campus-based universities to study and acquire diploma, limited number of foreign students are enrolling in Korean distance education programs. Current distance education of Korea does not meet global interests in Korean culture and other academic areas that Korea is leading. The developmental endeavor has mainly focused on developing educational programs for Korean learners. Korean distance education in the future needs to turn our attention to developing globalized programs for global learners. Distance education in Korea would play an important role in globalizing Korean educational services.

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