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OPEN AND DISTANCE LEARNING FOR HUMAN CAPITAL DEVELOPMENT: PROPELLING ASIA FORWARD

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Abstract

The mission to develop human capital capable of making a positive impact on national progress is firmly linked to higher education. Universally considered a focal element that is greatly influenced by globalisation, international competition and the rapid evolution of information and communication technology, higher education is especially crucial in Asia, where creating access for people to obtain university degrees is often mired by limited resources and facilities, especially in less developed settings. However, alternative approaches to higher education, such as that offered by open and distance learning (ODL), are now recognised as a means for a more accessible, affordable and flexible pathway towards better opportunities for university degrees and ultimately, for boosting human capital and the economy. Asia has proven true to its robust and dynamic reputation; a region that is home to some of the world's oldest open universities, many of which were established to provide learning opportunities to working adults. Today, the Asian ODL environment continues to evolve and the ODL approach is well accepted across the region. By meeting workforce-related educational needs, these developments clearly indicate ODL's potential to contribute to human capital development and national progress. This paper will briefly review the current ODL scene in Asia and discuss how open universities can further contribute to human capital development. This paper will also explore several key issues related to ODL and economic progress, such as lifelong learning and international collaboration, and how these will be an imperative for Asian countries to move forward in a competitive and borderless world.

1. INTRODUCTION

Globalisation, international competition and the rapid evolution of information and communication technology (ICT) have triggered various 21st Century challenges, such as changing employment practices and societal values as well as expanding international trade and commerce. For many countries, these challenges indicate a need to develop a national capacity to adapt to these new conditions, particularly from the human capital perspective.

In Asia, dubbed "the world's most dynamic region" (The Economist, 2013), issues related to the workplace and the workforce universally affect all countries - advanced economies like Japan and South Korea as well as countries in the less developed regions in Central and South Asia all struggle with building a workforce that has the sought-after characteristics that are needed in a globalised economy.

Higher education institutions have been urged to create the means for more people to obtain higher level education so as to develop the required knowledge and skills needed to sustain economic growth. However, this in itself can be insufficient, especially in developing countries where the existing workforce is not highly skilled, and opportunities for training and skills upgrading within existing industries are lacking as well. Thus, although increasing higher education enrolment will be an imperative, it continues to be a challenge that cannot be solved by conventional brick-and-mortar universities that often do not have the capacity or resources to cope with this surging demand.

This is where open and distance learning (ODL) can play a major role. As an alternative approach in higher education, ODL leverages on ICT to deliver academic programmes, thus creating an avenue for people to learn independently, anywhere and at any time. Although ODL in general mainly caters to working adults, it has opened the door for people from all walks of life to obtain a university degree, either for career advancement, upgrading of qualifications or even for personal fulfilment.

Asia has been one of the leading providers and consumers in ODL, with many notable ODL institutions and open universities that have been established since the 1970s; some of which have achieved a 'mega university' status with learner enrolment exceeding 100,000. More than six years ago, Professor Insung Jung of the International Christian University in Japan, noted that Asia, with more than half of the global population, has shown tremendous growth and diversity in ODL (Jung, 2007) – a trend that continues in this second decade of the 21st Century.

The success that ODL has already witnessed in Asia proves that it is capable of addressing enrolment issues and improving the quality of the workforce, while at the same time, provide the solution that can transform higher education to help Asian countries survive modern demands and to propel the region forward.

This paper will briefly review the current ODL scene in Asia and discuss how open universities can further contribute to human capital development. This paper will also explore several key issues related to ODL and economic progress, such as lifelong learning and international collaboration, and how these will need to be addressed if Asian countries are to move forward in a competitive and borderless world.

2. OPEN AND DISTANCE LEARNING IN ASIA: A BRIEF REVIEW

Some of the major open universities in Asia began as institutions that delivered programmes through radio and television broadcast; which was an anticipated progression since the University of South Africa (UNISA) was historically established as the world's first correspondence university in 1959. Later, many of the region's now prominent open universities were established, many of which were not long after the world's first distance teaching university, the Open University at Milton Keynes was founded in 1969.

Thailand's Ramkhamhaeng University was started in 1971 as Southeast Asia's first open admissions university (Jung & Latchem, 2007). Ramkhamhaeng University's establishment represented the broad realisation that conventional universities could not meet the growing demand for university places – a concern that also led to the establishment of many other open universities in this region.

Many of the distinguished open universities are also some of the region's largest, and by the sheer enrolment numbers alone, are considered some of the world's global key players in ODL (Hanover Research, 2011). From the very beginning, Asian open universities aimed to provide for working adults, as well as to democratise educational opportunities, and to reach remote areas and marginalised individuals.

Allama Iqbal Open University, considered the first open university in Asia, was established with similar concerns, but also as a way to address Pakistan's issues with marginalised and impoverished people, especially women and those in rural areas. Similarly, Indira Gandhi National Open University was established with the aim of achieving inclusiveness in Indian higher education as well as reaching out to disadvantaged people throughout India.

Currently, Asia is home to more than 70 open universities – representing the majority of ODL institutions globally. The Asian Association of Open Universities (AAOU) has been active for 26 years and now has more than 40 full members and over 20 associate members. Many open universities that were established in the 1970s and 1980s have achieved 'mega university' status, while some have even attained the 'super mega university' status, with more than 500,000 learners enrolled. Some, like Open University Malaysia (OUM) and Universitas Terbuka Indonesia (UTI), have also been involved in

national initiatives for the training of teachers, where ODL is considered an ideal platform for teachers to learn on a part-time basis without having to leave their day-to-day teaching jobs.

These developments indicate how far ODL has grown in Asia, where in many Asian countries, widening the access to education is considered essential to realise human potential and socio-economic development (Jung & Latchem, 2010).

The following are some of the notable open universities in Asia (Table 1).

Table 1: Some Prominent Open Universities in Asia

Open University	Country of Origin	Year Established	Learner Enrolment
Allama Iqbal Open University	Pakistan	1974	1,800,000[*1]
Bangladesh Open University	Bangladesh	1992	650,000[*2]
Indira Gandhi National Open University	India	1985	4,000,000[*3]
Korea National Open University	South Korea	1972	160,000[*4]
Open University Malaysia	Malaysia	2000	130,000[*5]
Open University of China	China	1979	3,600,000[*6]
Open University of Japan	Japan	1981	1,100,000[*7]
Payame Noor University	Iran	1984	1,100,000[*8]
Ramkhamhaeng University	Thailand	1971	430,000[***9]
Sukhothai Thammathirat Open University	Thailand	1978	160,000[**10]
Universitas Terbuka	Indonesia	1984	540,000[**11]

[*]Cumulative
[**]Active/Current
[***]Annual Average

Sources:
1. http://aiou.edu.pk/SalientFeatures.asp
2. http://en.wikipedia.org/wiki/Bangladesh_Open_University
3. http://content.time.com/time/world/article/0,8599,2107146,00.html
4. http://www.knou.ac.kr/engknou2/
5. Internal information
6. http://en.crtvu.edu.cn/about/general-information
7. http://www.ouj.ac.jp/eng/pdf/OUJ_Brochure.pdf
8. http://en.wikipedia.org/wiki/Payame_Noor_University
9. http://www.ru.ac.th/english/english2008/about.html
10. http://www.stou.ac.th/eng/FAQs.aspx
11. http://www.ut.ac.id/tentang-ut/ut-dalam-angka.html

While there is immense diversity among Asian countries, challenges in ODL across the region are quite similar. Lack of sufficient connectivity and poor ICT facilities continue to be a hindrance particularly in developing countries, while many open universities struggle with retention issues, inadequate funds, as well as faculty training and development. Language and cultural barriers, as well as different attitudes in developed

and developing countries are also persistent obstacles, especially when it comes to regional or inter-institutional collaboration. Overcoming these challenges will be an imperative to advance the ODL cause in Asia.

3. RATIONALISING OPEN AND DISTANCE LEARNING FOR HUMAN CAPITAL DEVELOPMENT

3.1 Workforce Development in the National Context

Creating a knowledgeable and skilled workforce to reap economic benefits is the foundation of human capital development. Investing in human capital development is often connected to higher education, where its importance in national productivity and growth is frequently mentioned as a basis for governments to declare higher education as a national agenda, as well as to increase funding for education and training.

Broadly defined as "workers whose main capital is knowledge", knowledge workers play crucial roles for economic progress. Thus, creating opportunities and avenues through which people can be trained to become knowledge workers and valuable contributors to the economy is a key concern, especially in many developing countries.

For this reason, over the past few decades many countries have focused on improving higher education participation rates and increasing enrolment in universities. For instance, Malaysia has targeted a 50% participation rate of 17-23 year-olds by 2020, although the current figure is closer to 32%. Other developing countries in Asia are similarly struggling as well, thus demonstrating the challenge of keeping up with the demand of university places. Many countries have resorted to private higher education as a means to complement public universities, but even the establishment of private institutions struggle to contend with changing demographics and rising numbers of school-leavers.

Furthermore, setting targets alone cannot fully address the need to create a skilled workforce. In many developing countries, many of those who are already working do not have the skills and qualifications needed for higher income or professional jobs. As an illustration, in Malaysia, it is evident that a large segment of the current workforce has lower qualifications and industries do not have the capacity to provide the required training. Of more than 13 million members of the current workforce, only 26.1% is armed with tertiary-level qualification (Department of Statistics Malaysia, 2011). Malaysia has set a national target of 33% of the workforce to be employed in higher skilled jobs by 2015, and up to 50% of the same by 2020 (Government of Malaysia, 2011).

What this means is that not only is there a need to create pathways for school-leavers to gain entry into higher education institutions; it is equally important to ensure that the

current workforce have the access and opportunity to upgrade their skills to perform in a knowledge economy.

3.2 Creating a Knowledge Economy

The idea of a knowledge economy stemmed from the concept that knowledge can generate economic value. To develop a high-income economy based on knowledge, human capital must encompass the right skills and competencies, including the capacity to innovate. Considered the most recent stage in the global economic structure, a knowledge economy represents a clear transition from agricultural and industrial economies of past decades. This marks the growing importance of innovation, research and development and ICT.

The key to developing a knowledge economy involves the upgrading and creation of the relevant skills and competencies, not only from the technical fields, but also involving 'soft' and interpersonal skills, as well as language and communication abilities. This lends to the notion of a holistic and well-rounded labour force that is not only capable of fulfilling job-specific demands, but also as individuals who are prepared for gainful employment and thus, can make a positive impact to the economy. Relevant to these skills are proficiency in the English language, emotional maturity, understanding of professional ethics as well as accountability.

3.3 The Role of Universities

As traditional repositories of knowledge, universities must be able to develop or adapt curricula to match these needs, especially in a highly competitive economic environment. Thus, universities need to find ways to strike a balance between traditional academic objectives with current industry needs and nurturing the right skills needed for the transformation of society. At the same time, planners must have the capacity to extrapolate demand for academic programmes from high-growth sectors, e.g. tourism and hospitality management and banking as part of the services sector; or manufacturing and oil and gas as part of innovative research.

Thus, the role of universities should not merely be confined to producing graduates; rather, universities must also consider their roles as providers of training programmes to upgrade the skills and competencies of the existing workforce. Academic programmes must be designed in such a way to be flexible and relevant to meet the changing needs of the 21st Century, including ICT innovations. For instance, through professional training arms, universities can offer programmes in manufacturing and retail management, office administration, customer service management, branding, marketing and financial planning at different study levels, e.g. certificate, executive diploma, degree, or postgraduate diploma that can complement fundamental or technical knowledge. In addition to conventional academic programmes, these are also

important components in ODL, and represent a critical and pertinent educational pathway for the current workforce.

All of the above will create the necessary impetus for greater labour input, as well as a means to increase productivity and efficiency in the economy. This can hopefully lead to higher incomes and better standards of living for the citizens, especially in the developing countries of the Asian region.

3.4 The Role of ODL

ODL is considered an avenue to widen access to higher education, especially for working adults. Where other higher education institutions focus on creating access for school-leavers to obtain their first degrees, this demonstrates ODL's potential to provide solutions for the educational needs of the workforce. By leveraging on ICT, ODL utilises a delivery method that allows learners to study on a part-time basis, often using an online platform and freeing them from the obligation of attending on-campus classes. This flexibility is the main advantage for working adults who cannot afford to study full-time.

At OUM as well as many other open universities, the bulk of the learner population is formed of working individuals, such as teachers, nurses, civil servants and those working in the fields of human resources, business administration and information technology. This is because ODL programmes tend to gravitate toward career-oriented and industry-driven fields, thus making them even more attractive to those who are already working. As a form of capacity building, this has many benefits, including:
- Those with higher qualifications have a chance for promotion and career advancement;
- The workforce is boosted by skills and knowledge upgrading of working individuals; and
- The enculturation of lifelong learning as an important component in human capital development.

4. CURRENT ISSUES AND IMPACT ON OPEN AND DISTANCE LEARNING IN ASIA

4.1 Accessibility, Affordability and Flexibility

While ODL has been widely accepted in many parts of Asia, some issues and challenges persist. Foremost among these issues are related to accessibility, affordability and flexibility. Ensuring universal access means that ODL programmes should not be limited only to the privileged few. ODL institutions must explore ways to provide nationwide infrastructures, such as Internet (including broadband and WiFi) access and other ICT facilities, to reach learners in both urban and rural areas. This relates to the issue of affordability, whereby ODL providers must achieve cost-effectiveness (especially in

terms of ICT investment) while maintaining fees that are affordable to those within the lower income brackets. This is particularly important in many developing Asian countries as a majority of the population is within the lower- or middle-income groups. Thus, an important exercise for ODL institutions is branding and awareness creation to encourage a greater number of people from this segment of the population to leverage on the benefits of ODL.

Additionally, the establishment of learning centres nationwide is critical to broaden access, especially in countries with widespread geographical areas like China, India and Indonesia. ODL institutions must ensure that these nationwide learning centres are equipped with excellent infrastructure and ICT facilities as well.

That said, carefully investing in ICT can result in economies of scale and lowering of delivery costs. Prohibitive costs often affect learner retention in ODL institutions, which needs to be carefully monitored to ensure that there is a successful continuum between enrolment of learners and the creation of knowledge workers.

Flexibility relates to an institution's ability to create a system that can suit working adults. Fully utilising ICT is again an important strategy, especially to reach learners through various platforms and media as well as to suit different learning styles, so that teaching and learning can take place anywhere, anytime as well as both synchronously and asynchronously.

It is necessary to point out that accessibility, affordability and flexibility are all linked to the importance of quality delivery and learner retention. ODL institutions that struggle with retaining learners need to focus on these three key issues as part of the focus on quality across all facets of delivery. For instance, it is important to use ICT in ways that can motivate and assist learners, while at the same time provide easy and quick solutions to their problems and concerns. These will be instrumental to ensure that learners are given the appropriate support and guidance to successfully complete their studies.

4.2 Lifelong Learning

Of late, education has been increasingly associated with the concept of lifelong learning. In Malaysia, the recently released Blueprint on Enculturation of Lifelong Learning for Malaysia (2011-2020) declares lifelong learning as the third pillar in human capital development; thus acknowledging it as an equally important component as the school and higher education systems. The increasing emphasis on lifelong learning is evident in many other countries with a concept that is predominantly linked to adult and continuing education. Some fine examples from Asia, such as Japan, Malaysia, South Korea and Thailand, can be seen in the Asia-Europe Meeting (ASEM) research publication that explored the connection between lifelong learning and e-learning (see Kim (2010)).

With efforts like Malaysia's Blueprint already in implementation, awareness at the community level will grow, and more working adults are likely to seek opportunities in ODL to upgrade their qualifications and for self-improvement. ODL institutions will need to anticipate this growth, and cater to the foreseeable demand. It is important to remember that open universities must also be mindful of the less fortunate segments of the community, including single mothers and the physically disadvantaged, as well as senior citizens, prisoners and retired civil servants. This is something that is evident in the efforts of many open universities in Asia, including OUM.

With specific regard to human capital development, ODL programmes must be relevant to current industry needs, particularly those related to skills upgrading and professional programmes. This means that the ODL curriculum needs to be adaptable to extend beyond basic or mainstream academic requirements to give greater emphasis to specific job-related needs. The proliferation of industrial and professional degrees is a positive trend that can immediately benefit industries and economies.

4.3 Leveraging on ICT

Leveraging on ICT in the most productive, innovative and meaningful way is particularly crucial, as this is one means for increasing the quality and effectiveness of ODL-based academic programmes. Financial constraints in the capital expenditure of ICT facilities may be more apparent in some countries, although there have been several success stories in Asia, such as what has been achieved by the Korea National Open University (KNOU).

As one of Asia's most innovative ODL institutions, KNOU has leveraged on ICT for educational as well as administrative and management purposes. Its mobile learning initiative has developed a fully-functioning mobile campus that can be accessed on mobile devices, and there are special learning materials and features for physically disadvantaged learners. For teaching and learning, KNOU has developed various forms of electronic content, such as e-books, video lectures, and online tests. The progress KNOU has made in this regard is something I believe can be emulated by other open universities in Asia.

The role of ICT in ODL is a regular theme for discussion, but more novel applications, e.g. open educational resources (OER), collaborative learning, social media, and the use of mobile devices will need greater attention, as they are becoming more pervasive and influential in the 21st Century. To use ICT effectively will mean fostering innovation through mobilising resources, skills, cultural values, social competencies and capabilities (Ferrari, Cachia & Punie, 2010). For ODL institutions like OUM, ICT innovations can be credited for its unique delivery system utilising a blended pedagogy that comprises online learning, self-managed learning and face-to-face tutorials. It is this blended

pedagogy that has allowed OUM to reach almost 130,000 learners throughout Malaysia since its first intake in 2001.

In discussing ICT innovations, ODL institutions need to be aware of the recent phenomenon of MOOCs. This novel approach in higher education spells a new perspective in higher education, where many of the best and most sought-after institutions in the United States of America like the Massachusetts Institute of Technology, Princeton University, Stanford University and Harvard University, offer completely free online courses. Some of the prominent MOOC providers are Coursera, EdX, Udacity and Khan Academy (Bonk & Schroeder, 2012). Learners can enrol at any time, take part in video lectures, do quizzes, complete peer-graded assessment and have live interaction with classmates and teachers at absolutely no cost. Most MOOC providers only charge when learners request for official accreditation.

Stanford University provides a startling illustration of the massive potential of MOOCs. In 2011, it offered a course on artificial intelligence that quickly drew more than 160,000 registrants from 90 countries. Of all the initial registrants, 23,000 successfully completed the course. Khan Academy is yet another fascinating example. Started as a series of YouTube videos to tutor basic mathematics, Khan Academy has grown into a not-for-profit education provider that gives free access to 4,500 instructional videos in its library, as well as provides the relevant assessment.

How MOOCs will affect the future of ODL is something that requires serious thought. Although the success rate of MOOC learners is reportedly very low – about 90% of all learners drop out without completing a course (Rivard, 2013) – it is interesting to note that in its entirety, MOOCs represent a modern, open, limitless and often free take on higher education that prizes open access to learning materials. In fact, open universities can take advantage of MOOCs by using the freely available content or by learning how other faculties teach. At the very least, they represent a way for ODL providers to improve the quality of our programmes and services.

4.4 Internationalisation

In a globalised world, successfully building an international presence is not limited to corporations and business entities. Open universities are part of global higher education, and our participation can be even more influential due to the open and borderless approach that ODL has always subscribed to. For any higher education institution, internationalisation must involve a balance between competition and collaboration. While internal competition can drive domestic growth, partnerships are equally important as they allow institutions to learn from one another, and can also bring region-wide growth and global recognition.

Over the years, international partnerships between open universities in Asia have become widely accepted. A regional organisation like the AAOU serves as a crucial

platform via which Asian open universities can learn from each other, as well as share and exchange expertise and collaborate in teaching, learning, research and publication.

However, the nature and extent of collaboration amongst Asian open universities need evaluation. If partnerships and joint curriculum development are already in practice today, ODL institutions will need to explore what future collaborations might entail. With the support of organisations like the AAOU, we can further this cause to create opportunities for mutual benefit.

One example that can have immediate benefits is a regional OER database. This effort has already been initiated by OER Asia (see http://www.oerasia.org/). With greater participation from Asian open universities, not only will this be a positive move towards a more open atmosphere for ODL to evolve further, it can also address the challenges of quality and equity across all Asian countries. Other initiatives that can be quickly implemented are joint publication or research activities on areas of common interest. In the long run, the offering of joint degrees, credit transfer between institutions, curriculum development and sharing of ICT applications can be part and parcel of the international nature of ODL.

OUM's own international experience over the last eight years has created collaborative opportunities in nine countries through a global outreach that aims to reach out to other institutions that share the university's goals to provide quality services to all learners. As an ODL institution, OUM has been able to locate its international activities outside Malaysia, as its partners operate as the university's overseas learning centres. While OUM designs programmes & curricula, provides materials, technology support & monitors quality, all partnering institutions are free to hire faculty members, enrol learners, run the programmes and conduct assessment, thus allowing a reasonable degree of independence and flexibility without compromising quality.

The following are some of OUM's partnering institutions:

1. Accra Institute of Technology, Ghana;
2. Arab Open University, Kingdom of Bahrain;
3. Eszterházy Károly College, Hungary;
4. Graduate School of Management, Sri Lanka;
5. Ho Chi Minh City University of Technology, Vietnam;
6. IDM, Sri Lanka;
7. International Institute of Health Sciences, Sri Lanka;
8. Mogadishu University, Somalia;
9. NIEC School of Business Management Trust, Zambia;
10. University of Science and Technology, Yemen; and
11. Villa College, the Maldives.

5. CONCLUDING REMARKS

The growing concern for human capital development has affected the expectations and demands in higher education and many countries, whether in Asia or beyond, realise the need to leverage on universities to upgrade the skills of the workforce so as to contribute to national economic competitiveness, which is considered an essential success factor in a globalised world.

The role of ODL – both as a means to widen access to higher education, as well as in contributing to human capital development – needs to be acknowledged and lauded. Where conventional public universities cater to full-time learners to increase national participation rates, open universities can focus on upgrading the qualifications of the current workforce, as the latter can benefit directly from industry-relevant educational opportunities.

Those of us in Asia are fortunate to be part of the world's most dynamic region, with many established and world-recognised open universities that demonstrate the regional concern for addressing poverty, disparity and reaching remote and marginalised people. However, there are challenges that need to be addressed if Asia is to move forward in both ODL provision and to ensure excellent human capital development.

Creating a knowledge economy will depend on universities and ODL institutions ability to respond to current workforce needs. This will be vital in improving labour input, enhancing productivity and efficiency at the workplace, as well as creating opportunities for higher income and improving living standards. The key aspect in our role as education providers is quality, which must be achieved and maintained in all facets of delivery. This will prove integral not only in attracting learners, but in ensuring that they will successfully complete their studies and exit as graduates.

In propelling Asia forward, open universities need to understand the importance of accessibility, affordability and flexibility. Open universities in this region need to evaluate current environments and issues and consider the requirements of potential future scenarios. The continued use of innovative ICT, lifelong learning, MOOCs, OER and internationalisation will be even more significant in the future, as we strive to create and maintain a competitive edge in the coming decades of the 21st Century. Building human capacity will continue to be a relevant and persistent concern – how ODL institutions and open universities can play our roles in this endeavour will depend on our ability to adapt to national needs and global dynamics.

REFERENCES

Bonk, C., & Schroeder, R. (2012). *Open All the Way: MOOCs, OER, and Open Education.* Accessed August 21, 2013, from https://sites.google.com/site/moocmaking/

Department of Statistics Malaysia (2011). *Key Indicators of the Labour Market Malaysia (2001-2010).* Accessed August 15, 2013, from http://www.statistics.gov.my/portal/download_Labour/files/BPTMS/indikator_0110.pdf

Ferrari, A., Cachia, R., & Punie, Y. (2010). *ICT as a Driver for Creative Learning and Innovative Teaching.* Accessed August 21, 2013, from http://ec.europa.eu/education/lifelong-learning-policy/doc/creativity/report/ict.pdf

Government of Malaysia (2011). *The Tenth Malaysia Plan (2011-2015).* Accessed August 23, 2013, from http://www.pmo.gov.my/dokumenattached/RMK/RMK10_Eds.pdf

Hanover Research (2011, February). *Trends in Global Distance Learning.* Accessed August 15, 2013, from http://www.hanoverresearch.com/wp-content/uploads/2011/12/Trends-in-Global-Distance-Learning-Membership.pdf

Jung, I. (2007). Changing Faces of Open and Distance Learning in Asia. *International Review of Research in Open and Distance Learning, 8*(1), pp. 1-5.

Jung, I., & Latchem, C. (2007). Assuring quality in Asian open and distance learning. *Open Learning, 22 (3),* pp. 235-250.

Jung, I., & Latchem, C. (2010). *Distance and Blended Learning in Asia.* New York: Routledge.

Kim, B. (Ed.). (2010). *ASEM White Paper: e-Learning for Lifelong Learning.* Seoul: Korea National Open University Press.

Lee, T. R. (2010). *A Case Study on the Use of ICT for ODL in KNOU.* Presented at the Regional Seminar on the Impact of the Economic Crisis on Higher Education and the Use of ICT in Universities, June 30 – July 2, 2010, Bangkok, Thailand.

Rivard, R. (2013, March 8). *Measuring the MOOC Dropout Rate.* Accessed August 21, 2013, from http://www.insidehighered.com/news/2013/03/08/researchers-explore-who-taking-moocs-and-why-so-many-drop-out

The Economist (2013, July 13). *Boom and Bust in Asia: Going for Growth.* Accessed August 21, 2013, from http://www.economist.com/news/books-and-arts/21581702-explaining-asias-economic-success-easy-one-two-three-going-growth