

Future Directions for Distance Education

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ABSTRACT :

This Paper reviews current research on how well distance education helps to provide access to education around the world, drawing from the Papers published to the ‘Distances and Access to Education’ website to date 20 June 2008, plus some recently added or related papers. This review takes the format of a meta-analysis of all these published works, and draws conclusions from them. These conclusions are ;

1. Develop free and open education resources in the native language of each student - including student-created content in local radio and television ;
2. Externalize examinations away from the teaching process to regional supra-institutional accreditation agencies ;
3. Use scaffolds to provide collaborative group learning as the core structure in distance education courses for critical thinking skills for job mobility and social capital.

These three conclusions derived and presented here can be interpreted as suggestions or guidelines for the future directions of distance education.

1. INTRODUCTION :

Meta-analysis finds that there are reports across the spectrum from the past, the present, and about the future - with some overlap. The themes of these three time ranges are termed here *Visible Benefits Achieved*, *Technologies*, and *Social Development* to illustrate the topics of the Papers in each range, shown in FIGURE 1. The time-line is only an approximation to group the topics covered. The Papers cover topics that are analyzed under the three main themes.

--- --- Time Line --- ---		
past	present	future
Visible Benefits Achieved		
Technologies		
Social Development		

FIGURE 1 : The Topics are discussed under Three Themes shown here

The Asian Journal of Distance Education has received a Paper from Sir John Daniel commending this combined project (Daniel, Kanwar & Uvalić-Trumbić, 2008). In their Paper, they review past models used for higher education, and with the current technology recommend a new model based on individualization of courses and utilizing global resources - to provide access to all, as well as providing quality, and at low cost. Their Paper would fall in the future half of the themes discussed here.

2. METHODS :

There are 29 Papers in English up on the 'Distance and Access to Education' website <http://www.distanceandaccesstoeducation.org/index.aspx> at this date 20 June 2008, and a few more are or will be uploaded soon. There are a further 11 Papers in French, 2 Papers in Spanish, and one in Portuguese. The language of the Paper is of special interest and will be discussed. In the Call for Papers, authors were asked to formulate responses to the following questions and issues concerning the Right to Education ;

What is the role of distance education in the implementation of the right to education ?

How is distance education involved when education is seen as a right ?

What is its position in educational policy, as a factor of quality and an instrument for liberty ?

Do the technologies of distance education act as enablers or barriers to achieving the university right to education ?

The Asian Journal *of* Distance Education received proposals that fell into eight areas ;- legal rights, social right to literacy, case studies (such as right to education in prison), right to higher education, teacher training, transnational projects, new technologies, and new multicultural standards for access. This review of those Papers in the Asian Journal *of* Distance Education and overall the 29 Papers up online finds that they fall into three main areas ;- *Visible Benefits Achieved*, *Technologies*, and *Social Development*. These form a rough time-line where *visible benefits achieved* covers topics instituted in the past and carrying over to the present. *technologies* are current with future implications, and *social development* is future oriented. Some topics span the whole time-line, but are reviewed in only one theme.

Results are presented here under these three themes,

3. RESULTS :

3.1 *Visible Benefits Achieved*

Several Papers in the collection present cases where visible or tangible benefits have been achieved and demonstrated through the use of distance education, as physical steps forward towards achieving the Right to Education. Wong (2008) reports how working adults in Malaysia could attend distance education courses - in their cases either provided by the UK Open University or an open university in Australia or Malaysia - and consequently could achieved their desired personal development, socioeconomic and professional development. Wong used individual case studies with interviews to illustrate the visible benefits achieved through distance education. Vryonides & Zembylas (2008) also present benefits to working adults - in their case of women in Greece and Cyprus. They assert that women there still manage most of the homemaking chores so are already busy balancing work and home - even before they try to make time and space for continuing education. Actually the course described by them had 29 women and 11 men , and these were pre-selected from 150 ~ 180 applications ; and in another course of 80 women and 20 men (pp. 4-5). The situation therefore is somewhat different from open universities that do not pre-select. The study by Vryonides & Zembylas (2008) surveyed online journals kept by the mature women on these courses, and interviewed 8 as individual cases, and they found the expected novelty factor soon wore off and reading in English as a foreign language proved time-consuming and difficult to manage.

These findings lend support to other studies such as by Arulchelvan and Viswanathan (2008) and Kawachi (2002 ; 2004) who advocate using the students' native or local language for education. It is well known that students are slower when studying in a foreign language. Improving readiness for

distance education and course preparedness, suggested by Zhang & Au-Yeung (2002), may be useful for mature women students in Greece and Cyprus in the future. While both Wong (2008) and Vryonides & Zembylas (2008) focused on working adults and the benefits to them of distance education, another Paper, by Priebe, Ross & Low (2008) looked at how distance education has helped those children whose parents have not been to university. In 3.3 below, it is mentioned that women achieving a university education can help pass on their capabilities to their children, and here Priebe, Ross & Low look at this situation in a different perspective where the parents can not pass on such capabilities, and where the children presumably find added difficulties to overcome domestic or social barriers to learn. SchWeber (2008) takes this one step further - perhaps to the extreme, where the students adhere to their studies at a distance despite hurricane disaster or war. She reports that distance education under tragic circumstances can still provide the access to education that students want. SchWeber (2008) reports how a repository of online courses contributed by 153 institutions were quickly (within two weeks of negotiations starting) to provide lessons online to 1700 students whose schools were disrupted by hurricanes in the south-eastern USA in mid-August 2005. She also gives the case of war in Lebanon / Israel in the summer 2006 that prevented teachers from travelling from the USA, and who then switched from the planned face-to-face component to other media including DVD, email, chat and telephone. Both these cases of disaster, illustrate how distance education can provide continuity of access - and this only because repositories had been already established and the teachers had technological skills to draw upon at short notice. Both lessons remind us to modularise and store our courses, and to keep ourselves up-to-date with communications technologies. The American Museum of Natural History in New York has developed over the years a repository of digital resources for online courses for teachers - not only for teacher training but also for teachers to use in their classrooms. Picciano & Steiner (2008) in their Paper present how the City University of New York with 450,000 students is making use of these resources and bringing vivid science lessons to their students. Teachers responded after the course they had benefited fairly positively (ranging from 55 to 68% in favour, mean 62%) while they thought their students did not benefit so much (ranging from 50 to 60%, mean 54%). Picciano & Steiner write these results showed "significant benefits" (p.7), and their teacher quotations on pp.7-8 are all positive only. They describe the lessons learned in very general terms ; Basic operational and logistical issues, Technological issues, Financial issues, and Cultural, political, and policy issues. Certainly these could be closely examined and reflected upon to see if they might increase the perceived benefits, and the students too should be surveyed on their opinions too.

Altunay & Mutlu (2008) report in detail about courses around the world for teaching training through online e-learning, focusing on training English-language teachers - both initial training and in-service training. They use the situation in Turkey to show the actual practice in which the first two years of the university degree course are conducted face-to-face and the following third and fourth years are online with the practicum at a distance from the university provider. Their results show that Anadolu University provides education to a large number of students at a distance with a balance between male and female students, and between urban and rural areas - effectively providing equal access. They suggest their model should be applied for other courses such as

other foreign-language teacher training. Also related to inservice teacher training, Robinson (2008) reports a great improvement achieved in the inservice teachers' motivation and capacity through distance education ; discussions, development and sharing of teaching resources. And the visible achievements in the western China province seem well likely to be scalable to other regions there and in other countries.

Related to Robinson's Paper on teacher training in China, is the Paper by Feng, Zhang & Chen (2008) reporting how distance education has achieved practical advances in reaching school students in under-served rural areas of China. A further Paper by Chen Li & Chen Meiling (2008) covers this project comprehensively : it is the largest distance education project in the world. Feng, Zhang & Chen linked poorer schools with urban well-served schools through internet audio-visual conferencing. Despite the hardship in the poor rural schools, they succeeded through designing scaffolds for both the receiving teachers and students. They present a detailed analysis of what types of scaffold could be used, and collected feedback from the users on which were most effective. Well-designed scaffolds or templates for the teachers and students are a very practical and effective way to adapt courseware to not only suit the local culture but also to stimulate, motivate, pace, and assess the teaching and learning. Rather than have fading scaffolds used at the beginning of a course and gradually removed, they advocate the use of continuous scaffolds throughout the course. Surprisingly this novel approach for using scaffold techniques was clearly effective. A total of eight scaffolds - each involving special strategies - were used, and the teachers in the receiving schools highly rated these, as shown in TABLE 1 (taken from Feng, Zhang & Chen, 2008, p.31 and p. 36). The third column gives the rate (as strongly agree or agree) of usefulness reported for each scaffold by the teachers.

TABLE 1 : Continuous Scaffolds Useful for Distance Courseware Sharing

Scaffold	Main Content	Rate
Purpose Clarification	Clarifies subject, purpose and expectation of task	94.7%
Content	Provides clear direction and explains structure and content arrangement in detail	96.4%
Group Task	Helps in forming groups, making collaborative plans, assigning tasks, and the like	80.6%
Collaboration Skill	Fosters collaborative and communication skills	79.7%
Data Collection	Guides students to collect, organize and record relevant resources	86.3%
Data Process	Assists students to process and analyze collected data using text, tables, figures, and so on	85.0%
Outcome Presentation	Helps students present their project outcomes	93.9%
Evaluation	Clarifies evaluation standards and helps assess the process and production of group collaboration	88.0%

Resolving issues of discrimination to promote equity and equal access is the topic of the Paper by McNeill (2008) from my alma mater - where in physical presence I experienced no discrimination towards myself, but more recently in online courses have catalogued a list of discrimination largely targeted at my foreign-sounding name. McNeill writes that students might avoid presenting physical handicaps during online courses. At the UK Open University, our audiovisual conferencing course was abruptly cancelled after one student enrolled mentioned he was hearing impaired, and all students suffered for it. McNeill notes that with increasing life-span and lifelong learning then the proportion of students with disabilities can be expected to rise. Accordingly they are preparing well to have in place solutions for those with sight or hearing impairments and so on. McNeill concludes that their college has now made “changes which improve the quality of the study provision for all students, and which keep the College within the law” (p. 6). [Perhaps all that is needed now is to remove references linking education to drinking alcohol which some students find religiously abhorrent.] McNeill (2008, p. 6) closes by writing that “All providers will need to adopt similar approaches if the predicted shifts in demography, employment and health are realised.” Certainly, adopting ISO guidelines would provide for these contingencies of handicapped students. The new ISO 9004 : 2000 standards (an extension of the 9001) for quality assurance in teaching and learning to be introduced in 2007-2008, should be examined and carefully followed by all e-learning and online institutions.

3.2 *Technologies*

This theme deals with technologies that exist now and that offer promise to extend the Right to Education, rather than case studies demonstrating benefits (Theme 3.1) or social development issues (Theme 3.3).

Arulchevan & Viswanathan (2008) give a broad account of how technologies are providing access to education in India - focusing on radio, television and the internet. They give the history of each, advantages and disadvantages, and cover (probably) all projects in India using these technologies. Their Paper should therefore provide excellent base materials for new researchers. They bring us up-to-date on all the projects and present the challenges that lie ahead to be resolved. Of special note, Arulchelvan & Viswanathan outline the effectiveness with case studies and projects to conclude that more colleges should build on-campus radio stations for syllabus-related programmes, and that universities should use local TV and internet more for educational purposes. I would suggest that inter-campus shared radio would not only allow students to learn by doing, through student-created content, but also allow teachers to share materials and classes. Students can use computers to create educational video related to the syllabus and share their own created TV programmes. For future careers and work, students of most disciplines and their teachers need to learn to use these radio, TV and internet learning technologies and actually use them in practice. This would help developing regions. Students for example in poor rural regions of China reported by Feng, Zhang & Chen (2008) could be encouraged to create and share their own content, perhaps initially through collaborating with richer urban schools as they illustrate, and export these educational programmes to other regions and countries. In developed countries, other technologies could

include podcasting, weblogs, videoblogs, and websites - although radio is still an option even in developed countries and often overlooked. Students in western developed countries with advanced technologies could create useful radio programmes on student health, HIV prevention, community, and agriculture, as well as on basic education - for students in other poorer countries ; HIV awareness in distance education students in India is the topic of the Paper by Sivaswaroop & Madhuri (2008). Through learning how to create these reusable learning resources, students develop their skills of inquiry and collaborative skills useful for lifelong learning. Lin (2008) explains how students naturally use independent inquiry, collaborative inquiry and formative inquiry when using these communication technologies. While rights may be sometimes limited, Lin recognizes that it is important for institutions at least to understand that these three modes of inquiry are linked and are synergic for creative learning.

Radio is also very effective in Africa, according to Braimoh & Osiki (2008, p.55), since this media can be used where no electrical supply exists other than small battery cells. Braimoh & Osiki (2008) also discuss the use of radio in India, where it is used to deliver various forms of education including teacher education, science and liberal arts education, and educational programmes in agriculture for farmers.

Open courseware is becoming more accessible recently with some leading universities making their courseware freely available on the internet. This is an excellent use of the technology as it does not use trees and transportation costs, and receiving universities can adapt the materials to suit the local context. One would hope that poorer colleges would be among these early adopters and adapters, but there are some barriers yet to be resolved before rural developing regions can use these virtual gifts. The British Open University has packaged learner support and self-assessment quizzes and study guidance with their open courseware to make it more like a fully-fledged course rather than just the study texts. Wilson (2008) reports two case studies of a college in Britain and another in South Africa to compare and investigate how they coped with adapting these materials. The Open University has also allowed China to adopt some of its reusable learning objects to build a course in China, and this will be reported by Duan (2008) in the next issue of the *Asian Journal of Distance Education*. Wilson (2008, p. 2) cite Smith & Casserly (2006) who suggest that through sharing reusable learning objects we should be able to achieve the Second Millennium Goal of universal primary education for all by 2015. Currently, universities are adopting the available reusable learning objects, and they in turn should adapt and provide these to schools and teachers to eventually reach the primary-school children - although as Wiley (2007) makes clear, sharing is currently limited to higher education. He offers useful links (2007, p.4) to more than 2500 open courses worldwide - 1700 courses in the United States through <http://ocw.mit.edu/>, <http://cnx.rice.edu/>, <http://ocw.jhsph.edu/>, <http://ocw.tufts.edu/>, <http://www.cmu.edu/oli/>, <http://ocw.nd.edu/>, <http://ocw.usu.edu/>, 451 courses in China through http://www.core.org.cn/cn/jpkc/index_en.html , 350 courses in Japan through <http://www.jocw.jp/>, 178 courses in France through <http://graduateschool.paristech.org/>, plus translations of these into other languages, of particular interest into simplified Chinese <http://www.core.org.cn/OcwWeb/Global/all-courses.htm> and traditional Chinese <http://www.cocw.net/>. Two other Papers in this collection

discuss open educational courseware ; Caswell, Henson, Jensen & Wiley (2008), and Huijser, Bedford & Bull (2008). These deserve careful reading, and developing countries should be busy investigating which courses might best suit their own local contexts. Larson & Murray (2008) report also on open educational resources development, but this time from developing countries. They report on resources produced by Tsinghua University, Beijing, for use in poor rural areas of China. These resources have the advantage that they do not need to be adapted after importing from another region. Whether they can be shared farther afield is not yet clear. These resources are not wholly contained in a digital format, but depend to some extent on a live teacher to halt the presentation and discuss the content with the students viewing the presentation. In this way the teacher can adapt the context to best suit the students local knowledge and experience. Larson & Murray (2008) report that this way brings in what the students are learning in other courses, and so consolidates their learning better than using a standalone digital resource. They also mention in passing (p. 8) one point that may become more important in the next few years - that of copyright. Teachers accessing web-based resources may manage to get free access, but there comes a grey area where the teacher or institution charges their students for these lessons. Developing countries might accordingly be reluctant to invest what little cash they have in developing these resources now and prefer to wait to use those produced by others.

The principles of open educational resources are given by Geith & Vignare (2008) in their references to UNESCO (undated, 2008b) and the OECD (2007). Geith & Vignare (2008) give us a good insight into the issue of these resources and access through distance education, where they write that while many developed countries might reach high participation rates in primary and secondary education, these same countries are still having difficulties with increasing participation in tertiary or graduate studies. Japan here is one such country which indeed is aware of the need and is trying to find ways to increase graduate studies. Geith & Vignare also mention with insight that continuing education often falls to universities to provide. They write (p. 17) that online learning is “dominated by mostly industrialized English-speaking nations” so it not unsurprising they are not well versed in the situations of countries in South-East Asia. In Japan at least this does not apply : open schools for students from 15 years old are now widespread (Kawachi, 2005b), and local community centres provide meeting places and lessons for the professions and lifelong learning (Kawachi, 2008d). While this may be interesting to read and contrast the situation in different countries, it highlights the need for closer cross-border cooperative research worldwide.

Machado & Lussana (2008) add some caution about cross-border distance education : in their Paper, they mention that trying to put into practice up-to-date ways of learning using technologies can upset local traditional ways of education. They describe their experience delivering distance education courses from Europe into the Balkans and into Mongolia. However, the figure they use showing learning activities outside and surrounding the learners, and other parts where they mention the teacher is a learner and adopter (p. 6), and that governments are under pressure by organizations like the World Bank to reduce the digital divide (p. 6) all seem to indicate that learning occurs from the outside, which is not a social constructionist view of knowledge and learning. Zondiros (2008) similarly reports that distance education is a product of

globalisation as well as a producer of globalisation. Both these terms would imply that distance education is something outside of the student (which does not fit clearly with the concept of learning occurring within the mind). Zondiros usefully defines 'access', 'inequality' and 'exclusion' but (for instance) his definition he cites of 'exclusion' as "inability to participate in the normal relationships and activities available to the majority of people in a society" does not cover well the situation in developing countries where the majority are in need and poor, while the minority are richer and better educated so can better access distance education opportunities through modern technologies. Zondiros (p. 7) also cites that students in online distance education "must be already well-educated..." and that "they must be proficient in reading and writing English ...". It seems to me that the European context he describes is quite different from many parts of Asia - for example Feng, Zhang & Chen (2008) report how weaker students are helped, and these students use Chinese. Larson & Murray (2008, p. 16) also conclude that distance education resources should be produced in the local native language of the intended students. The Paper by Kumar, Chaudhary & Shankar (2008) also found that education delivered in the student's own local native language was a key to reaching the poor unserved population. Their Paper described their successes in the most remote region of the North East in India where ongoing insurgencies disrupt communications and prevent investment and development. The issue of computer literacy is often circumvented in practice in many countries even in the developed world - through for example using the telephone (as indicated by SchWeber, 2008). Zondiros (p. 9) also cites that "economic, social and technological conditions have created demand for education which is less about providing people who are socially and economically disadvantaged with educational opportunities but rather providing those who may well be well placed socially and economically with the educational opportunities to develop their ...". This again is not clearly fitting with distance education in many parts of Asia (see again Feng, Zhang & Chen, 2008, for their work in providing opportunities to poor students in rural China). Gulati (2008) too describes how distance education is used to reach vast numbers of the poor who constitute the majority in developing countries - so we should not only take a western view of the majority are literate and using distance education to enhance their already high socioeconomic positions, but bring in all the other views most of which are within developing countries where distance education is the only possible way to reach the rural poor majority. As we are experiencing rapid technological advances, Gulati (p. 3) reminds us that those in developing countries may be less capable of keeping up with these changes : this would support the ideas presented by Larson & Murray (2008) that developing countries themselves are perhaps best situated to produce their own materials.

3.3 *Social Development*

The key Paper by Kawachi (2008a) deals with how we can actually measure the effectiveness of our universities. The World Bank has adopted the measure of social capital, and Kawachi shows how universities throughout Asia, particularly open and distance education universities cater to getting students employed, providing vocational skills, and satisfying the students and employers as far as possible. The cost is the loss of the traditional theoretical studies in the core of

conventional university courses that develop critical thinking skills through highly structured problem-solving and collaborative hypotheses testing. Social capital and its ties with continuing education was the topic presented recently by Morgan (2007). The connection should be explored and better understood by distance educators. Kawachi (2008a) deploys his Transactional Distance Model consisting of four stages for learning, based on conversation theory and transactional distance theory. This model was developed and has been published over the past nine years, and Chinese versions of his Papers are also available (Kawachi, 1999 ; 2003a ; 2005a ; 2005b ; 2007 ; 2008b ; 2008c ; Feng & Zhang, 2008). This model is shown in FIGURE 2 below. There is a general trend, from the initial stages of courses to the later stages, of increasing educative dialogue, but the central two stages of collaborative learning of structured theoretical discussions should not be overlooked.

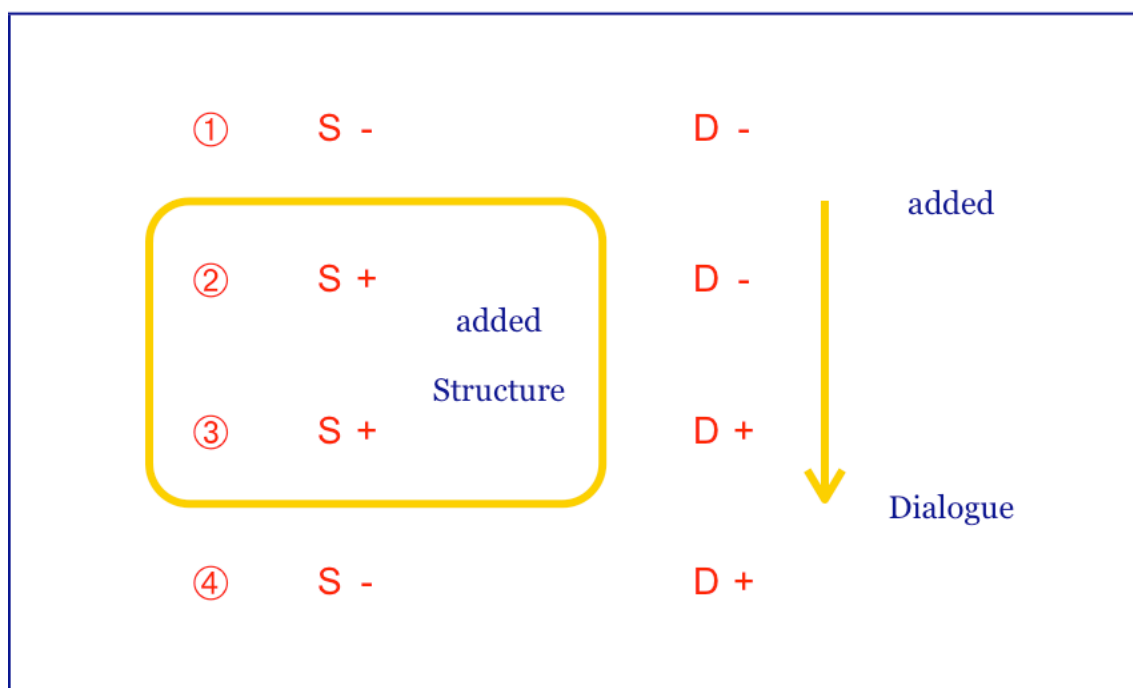


FIGURE 2 : The Transactional Distance Model with central Structure

His meta-analysis (Kawachi, 2003b ; 2005a) over fifteen regions throughout Asia showed a preferred avoidance of Stage 3 theory and structure, and instead only dialogue and training skills to move quickly from Stage 1 or 2 straight to Stage 4 and oriented towards a first job, rather than to the longer-term development of the individual or of wider society. This Model shows how distance education should be optimally structured for social capital to result in social development through far-reaching connections. When we conceive of the Right to Education, we need to have built in quality assurance for long-term social benefits : leaving out the collaborative structure and having only cooperative dialogue provides only a superficial education, perhaps suitable for finding a first job, but not for imbuing in the individual the skills for personal development and work mobility. This point is amplified at length by another Paper in this collection by Braimoh & Osiki (2008). They recognize the benefits

of distance education technologies from radio to the internet, in broadcasting educational programmes to the needy, but they ask whether the students can achieve real individual skills development and job mobility (2008, p. 55). They cite Mutume (2006) and 33-40% unemployment rates among young people in Africa, despite increasing enrolment rates in distance education, to suggest that job mobility is a major concern. They help define job mobility as geographic horizontal moves across either short or long distances, or as occupational horizontal to similar socioeconomic jobs or vertical job promotion within the same job. Across borders, Braimoh & Osiki report that job mobility in Africa could potentially bring both individual economic benefits as well as social community-wide developments, but that ethnic tensions are an increasing barrier. Surprisingly they found graduates who got employed through using government employment services had lower work motivation and higher anxiety than those who found employment through personal contacts and own job searches. This suggests strongly that education should provide more individual critical thinking skills and personal development, rather than omit structure and simply aim for easy first job placements.

While many if not most of us are concerned about reaching the unreached when we discuss the Right to Education, Braimoh & Osiki also remind us that computer-mediated technologies are promoting continuing professional development to medical physicians (they cite Davis, O'Brien, Freemantle, Wolf, Mazmanian & Taylor-Vaisey, 1999 ; O'Brien, Freemantle, Oxman, Wolf, Davis & Herrin, 2001). And other Papers in this collection present continuing professional development for teachers (Altunay & Mutlu, 2008 ; Robinson, 2008), and for working adults (Wong, 2008). Braimoh & Osiki (2008) find that the main student beneficiaries in Africa from distance education technologies are those who are already employed and who then study in their free time at any place for continuing education, and note that the illiteracy rates in Africa are not being reduced. They cite UNESCO (2008a) figures of 880 million adults still illiterate worldwide - the majority women, plus one-third of children under 6 years old still have not yet received any education, with 60% of children older than 6 years being girls still without access to primary schooling.

Feng, Zhang & Chen (2008) show in practice how distance education can help share limited resources in China to link good schools in urban areas to poor schools in rural areas, and achieve directly more equity among students nationwide as well as demonstrate achieving the Right to Education. This Paper is discussed more in the next section on visible results, and in the third section on technologies. Here this Paper is related to that by Robinson (2008) who describes how teachers can share their expertise in rural western China through distance education. Robinson reports on the setting up of a system of 686 Centres of Learning Resources for primary and junior school teachers (including head teachers) in half of the counties in one province. With further European funding this might be scalable to other regions. Each school equipped with satellite or internet cable served as a hub for 7-25 nearby schools involving 100-200 teachers. And each hub could then share their lessons, ideas and comments with other hub Centres. After the European input was finished at the end of 2005, the provincial government then from 2006 shared the teaching modules with the wealthier schools in the other counties of the province. Of interest, Robinson notes that the Right to Education can elude some teachers - for example uncertified teachers, locally-hired teachers, or older teachers may

find it difficult to access continuing professional education. Certainly one might expect that all teachers universally should be both capable and be pro-actively engaging in their own continuing education. It is not only in China that teachers' Right to Education finds barriers. In Japan too (Kawachi, 2003c) teachers find it difficult to access continuing professional development - not only in terms of time away from regular classes, but culturally - as stated by Zeichner, Tabachnick & Densmore (1987, p.38) that applies to most countries in South-East Asia where society does not expect teachers to be still studying ; "the view of the majority of teachers and administrators is that any fully-licensed teacher should be a 'completed' teacher, fully capable of meeting all the obligations and demands of the classroom".

The Project reported by Robinson (2008) in rural China was jointly funded by the European Union and the central Chinese government. The situation changes somewhat when we look at how funding should be arranged within a developed country, since the Right to Education should extend to all regions. Meyer (2008) asks whether taxpayers in the United States should fund distance education programmes within their own regions, or if not then who should pay. Meyer reviews the available data on cost efficiencies and suggests that perhaps public money should be used. The alternatives here are that philanthropic charities could help offset costs for lower-income students, and that the students whether rich or poor should finance their own selves - each according to their own capacities. In some developed countries (the UK, and Japan, for instances), university-towns have a high proportion of 'bus drivers' with higher degrees. This is not to belittle the value of education nor to suggest that all bus drivers should not pursue further education, but it does pose the same questions raised by Kawachi (2008) and Braimoh & Osiki (2008) above about social capital development and job mobility. The situation in China (Robinson, 2008) seems to strike a reasonable balance of seed funding by public money initially, and then having the qualified beneficiaries extend their learning to others nearby in need. As Robinson reports, the Model she describes is well designed and effective. Zuhairi, Zubaidah & Daryono describe the case of Indonesia, with relatively low public expenditure and so still a 'privileged' access, but despite nationwide access to education being achieved, they report a higher drop-out rate by women from higher education (2008, p.6). This mirrors the situation in Taiwan, reported by Yang (2008), where women reported lower satisfaction with the teaching and mismatch between the teaching style and the women's learning style. These reports would suggest that teacher education be extended and distance education teachers should be able to teach more flexibly to better fit with the students' preferred ways of learning. The number and proportion of women teaching in higher-education at a distance may also be a factor here.

Providing equal access to digital resources in life and throughout one's career is currently not yet standardized : with teachers and other individuals taking courses here and there either in face-to-face mode or online at a distance. Researchers in France - Cerisier, Rizza, Devauchelle & Nguyen (2008) - report on the concept of a certificate course being provided nationwide for secondary-school students. It is not yet clear if any other national government has introduced a similar certificate course. In Japan, there are some courses at secondary school but no nationwide standard certificate, and the situation is similar at universities.

Yawan & Wei (2008) cite the western three phases of elitism, then mass, then popularisation ; and try to fit this model to the Chinese scenario. This is difficult, and several times they report that there are more students desiring the educational opportunities than there are places. This is similar to other Asian countries too, except that notably we see now in Japan for the first time this year more places available than there are students ; with the unfortunate result that colleges are seeking to merge to reduce the number of available places and preserve competition and elitism. Yawan & Wei 's report would suggest to us that a different model describes China - of elitism, then popularization, and hopefully next mass education. It is here in trying to scale up the supply -"by building up our capacity and strength" (Yawan & Wei, 2008, p.7) to cater to the demand that China, as well as Korea, Japan, and other 'dragon' economies might focus their future efforts. The Papers by Robinson (2008) and by Feng, Zhang & Chen would support this alternative interpretation. In Zambia following the United Nations UDHR of 1948, Siaciwena & Lumbinda (2008) report that the policy of free education was introduced in 2002, according to their government strategic plan of 2003-2007. The interactive radio instruction (IRI) is now reaching just over 12 % of schools offering basic education (data over all schools not given). They report this IRI is contributing to increasing the rate of enrolment at the basic level (p. 7). Interactive radio is especially helpful in rural areas, not only in Africa, but also in India - discussed in the next section. Also, Siaciwena & Lumbinda (2008) write that "invariably open and distance learning institutions lack effective quality assurance systems" (p. 11), which reminds us that many regions may still remain sceptical of e-learning versus conventional face-to-face classroom learning - and Japan here is no exception ; too many other countries also do not yet recognise e-learning certifications. India for example is only beginning to recognize foreign-based e-learning institutions operating within India.

India is well-known for its economic empowerment through micro-credit to women to reach the children. Ivins (2008) takes this one step further by reporting on the micro-franchising of learning centres in nearby Nepal. How well this is a sustainable model or transmissible to other regions, however, is not yet clear. Similar to the developmental stage in China (Yawan & Wei, 2008), Tripathi & Mukerji (2008) in India report that they are now entering the massification stage. They offer us a massive amount of data on many aspects of the system in India. Of note, they report that women constitute only 39.41% of enrolment in higher education. Various reasons may be behind this, I guess. The State of Kerala has 58.81% women, while Orissa has only 8.33% women in higher education ; these numbers do not yet support equity and access, but even though the numbers are small, IGNOU has succeeded in empowering women through their graduate courses recently (Gaba, 2007). Women could achieve better jobs, promotion and professional status to their advantage. From a review of Zuhairi, Zubaidah & Daryono (2008), and Yang (2008), it is clear we need to find ways to support more women studying in higher education. Gaba (2007) shows through clear case studies that those that do use distance education can achieve both individual and social development goals. He also reminds us that even if the graduate woman stays at home after studying to take of older family members and children, there are long-term socioeconomic benefits accruing of better health care to the older family members and better educational support to the children. Gaining the Right to Education for women in India can therefore be of indirect social benefit in the long-term for others.

Bold, Chenoweth & Garimella (2008, p. 1) summarise much of the social capital issues raised in this section by offering the goal as ‘preparing all students for internationalization, and sharing resources for the benefit of developing countries’. Daniel, Kanwar, & Uvalić-Trumbić (2008) suggest a new model for distance education to achieve the goals of wide access, and high quality at low costs. They reviewed all three models previously employed, and advocate a new business model in which access is achieved through having open global resources, and consequently individualisation of content for each student. Moreover quality is assured through separating out the role of examinations to supra-institutional bodies that are national or regional accrediting agencies. Through open education resources, the costs are reduced to a minimum.

4. DISCUSSION :

The Transactional Distance Model in FIGURE 2 illustrates the distinct stages for learning, to build far-reaching connections and desirable social capital described in Section 3.1 above, it shows how teachers can scaffold their own learning through critical self-reflection (Stage 2), openness to other ideas (Stage 3), to try out in Stage 4 new found ways of teaching, described in Section 3.2 above, and this Model shows how technologies should be selected and used in distance education to best bring about learning, in Section 3.3 above. This Model is explained, tested out, validated, and illustrated in the various literature references cited here with URL links to the original Papers. Readers are encouraged to familiarise themselves with this Model, and through testing it out in their own context to learn new improved ways of teaching and learning at a distance.

After reviewing all these Papers in English and a brief look at the others not in English, some points do seem to be noteworthy; for instance all 22 literature references cited in the Paper in Portuguese from Brazil are references to books and articles in only Portuguese. This should give us something to consider deeply - along the lines that there is more to global distance education than the Anglo-American perspective. We should consider to re-publish this work and others into other languages such as English, Hindi, and Chinese - for the express purposes of access and equity. In regions that can access translators - either human or computer-based - then an English or Chinese translation can be fairly easily obtained.

While many Papers on the shared mission website are in languages other than English, this report has reviewed only those 29 Papers in English - due to the author’s poor language skills - while understanding that offering various languages greatly contributes to reaching a wider diversity of readers, the author here cannot manage all the various languages available. This may be not so unusual. Even in one’s native language, reading research is often a complex and deeply puzzling task at most times, and in a second or third language the expressed nuances are very likely to be overlooked. We should note therefore that we need to build research teams that bring in speakers of different native language to somehow increase coverage of the issues, not yet globally perhaps, but beyond the Anglo-American view of distance education. Some Papers show

deep insights into African education, and into the Arabian situation (Mukerji & Jammel, 2008, to be uploaded). These enrich our understanding, especially for designers of open and distance education global courseware.

The Paper in Portuguese by Cavalcanti & Strozzi (2008) considers the ways and to what extent that distance education has promoted human rights in Brazil - specifically bridging the digital divide and promotion of democracy such as citizenship for individual personal and professional development. Some comment could be made that citizenship and democracy involve far more than individual rights. Sometimes the rights of the group outweigh the rights of the individual, in many regions of the world. And so individual rights to education - such as personal freedom to surf the net and post up loose comments - perhaps should not be totally unlimited or unregulated. We need to listen more to others and keep a balance between rights and freedom, accountability, and responsibility. And we should keep in mind that quality assurance in open distance education should help us to focus “not on accountability for the past but responsibility for the future” (Rowntree, 1998, p. 20). We should exercise our individual rights more fully only with taking on more responsibility for others.

In the global Call for Papers, the authors were asked to address the following questions as detailed in the INTRODUCTION above. In summary these questions were ; What is the role of DE ? How is DE involved ? What is its position ? and does technology help ? Surprisingly many authors replied to these questions with a question : 6 of the 29 Papers had a question in their title. Perhaps not surprising considering the topic. A recent presentation by Morgan (2007) also asks us a question - on the relationship between continuing education and social capital, that should raise our awareness about our long-term goals for distance education. Morgan (2007) echoes the concerns of Kawachi (2008a) for building social capital. The role of DE is therefore not yet clear, but rather it seems there are still many answers needed. Certainly the Asian Journal of Distance Education has further Papers in its next issue to try to provide these answers, and the EDEN Research Workshop <http://www.eden-online.org/eden.php?menuId=90> on or about 20-22 October in Paris should certainly be a forum for discussion and some answers, but may well reveal we have indeed more questions.

The collection of Papers reviewed and the references provided to us by them would suggest that some global repository should keep track of resources for education (for instance, see the variety and disconnected but excellent array of resources cited above the references by Bold, Chenoweth & Garimella, 2008). The concept suggested here would be some sort of edu-web, where all resources can be accessed and students of all ages, cultures, and beliefs, and teachers similarly can feel at home together, learning and sharing. In this regard, the Commonwealth of Learning website Global Distance Educationnet <http://www.gdenet.org> should be utilized more, for example see the Paper by Kawachi (2000) on the ‘Democratisation of access to learning opportunities’ now freely accessible at their archives for East Asia previously built at the Open University of Hong Kong, and now operated by Beijing Normal University.

5. CONCLUSIONS :

Here some conclusions are drawn from the meta-analysis. Suggestions are made for the future directions of distance education.

Concerning visible benefits achieved, there are several points that are noteworthy. One is that we must act now in our designs of open education resources to accommodate an active and aging society which can be expected to include more individuals with various physical handicaps. Another covered by several Papers involves the practical benefits achieved in real-terms for women including improved job satisfaction, confidence in own capabilities, salaries, promotion, and social standing. These studies were of small numbers yet demonstrated improved social capital and suggest more should be done. One important question was raised about who should pay for developing and distributing open educational resources : one solution appears to be seed-funding with public tax money followed by adaptation to the local context(s) and then onward further local distribution, while another solution is for local content creation - which is much cheaper but hindered by a lack in local expertise in technology, in subject content, and the associated skills. Also concerning visible benefits achieved and here extending through the present and into the future, we need to produce more resources in local languages - in the native language of each individual student.

Concerning technologies, many Papers described current efforts to develop and deliver massification of education. In particular scaffolding can be used with excellent practical results to serve regions where there are few or no educational resources. Scaffolds designed for specific learning strategies were found to be useful to extend education to rural poor students in China, and these scaffolds covered all stages of the learning including both the cooperative and the essential collaborative learning stages : use of scaffolds was suggested by a review several years ago in a meta-analysis over fifteen countries or regions throughout Asia that found that there was a lack and need to have scaffolds for collaborative learning techniques. In the Paper reviewed here the scaffolded resources were delivered through satellite or the internet across China in what is the largest distance education project in the world. Other Papers reported the current effectiveness and the efficiency of basic radio and television. Meta-analysis here suggests that campus radio and television may be ideal directions for future distance education utilizing and based on student-created content. Student-created content can include peer-to-peer revision and cooperative studying that serve for modelling the learning process, but scaffolds are needed for the higher order learning and critical thinking skills eg explaining to others, justifying, and synthesizing. Student-created content is highly cost-effective and helps students acquire critical thinking skills and collaborative group learning skills as well as the technological skills for building social capital, job mobility and a future knowledge-creating society.

Concerning future social capital, but also drawing from current technologies, several Papers discussed teacher training and the effectiveness of distance education. While distance education clearly shows effectiveness and efficiency in delivering in-service training to teachers, more open and equitable access should be offered particularly to women teachers and to un-registered and un-qualified teachers : future use of open educational resources should be useful in

this regard. Distance education needs critical evaluation to maintain and improve quality assurance, and particularly to show its own effectiveness to stakeholders and communities. When we conceive of the right to education and what we hold as the basic concept and purposes of education, we need to have built in quality assurance for long-term social benefits : leaving out the collaborative structure and having only cooperative dialogue provides only a superficial education, perhaps suitable for finding a first job, but not for imbuing in the individual the skills for personal development, work mobility, and desirable social capital.

Overall, distance education is concluded to help ensure better access to education for continuing lifelong vocational and professional education - although this may be limited to the select digitally connected, rather than reaching the rural poor. Distance education is beginning to reach the rural poor in schools, but not yet reaching those children who are not in school.

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