Distance Education & its place in a Global Economy

- a Discussion Paper

by Peter Jarvis

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I want to start this address with an apology - I know little about distance education in Denmark although I have tried over the past few weeks to read about the project of which this conference is a part. Hence, if I say many things, which are obvious to you - I apologise for my ignorance. Let me also say, however, that I do bring to it almost thirty years of experience of working in distance education for more than one educational institution in a variety of different roles, and of studying and publishing in this area of education (Jarvis, 1993). In addition, I bring my own academic studies in adult learning and education from sociological and philosophical viewpoints and it is from these perspectives that I want to present my analyses. However, I think that it is necessary to include within the concept of distance education the idea of open learning as well - since distance learning need not be just geographical space, but also time dimension since courses can be studied at different times to when they are prepared and offered..

I was given two briefs - to discuss the future of distance education and distance education and weaker students. These are diverse topics but I hope that by addressing the first theme, I might be able to incorporate the second.

The first question with which I grappled was the meaning of 'future' in the context of this conference on further education and vocational training. The fact that it is within further and vocational education is important but in order to understand the future it is necessary to understand the present - and the present context is globalisation. Consequently, I would like to spend the first few minutes of this address examining the process of globalisation (which I have dealt with more thoroughly elsewhere - Jarvis, 2000) and, thereafter, I want to ask five fundamental questions about the future:

  • What is offered?

  • Who uses it?

  • How it is offered?

  • Who offers it?

  • What is the place of education within it?

In the final section of this, I want to discuss the nature of adult learning itself and relate it to distance education.

The Process of Globalisation

Globalisation is essentially a process whereby the world is becoming more uniform and standardised through the processes of the capitalist market operating on a world wide basis utilising contemporary technology. While it is not quite as simple as this, it is a useful starting point for this address. The process of globalisation, as we know it today, began in the West (USA followed by Western Europe) in the early 1970s - in the face of competition from Japan and the oil crisis which dented the confidence of the West. Corporations began to relocate manufacturing and to transfer capital around the world, seeking the cheapest places and the most efficient means to manufacture, and the best markets in which to sell, their products. This resulted in the continued decline in manufacturing industries in much of the First World and the need for new occupational structures emerged. Theorists began to suggest that there is actually a world economy (Wallerstein, 1974, inter alia) based on the capitalist system of exchange. This theoretical approach was questioned in part by Robertson (1995) who seeks to develop the idea of globalisation and by Castells (1996) who has argued that the State still has a place to play in a not-completely free but extremely competitive global market. Nevertheless, it is argued here that those who control capital (not own it) constitute the major force for change in the global market. This world market has expanded rapidly because of the tremendous advances in technology, especially information technology. The information technology revolution took off, with one development leading to another, as Castells (1996, p.51f.) demonstrates. He (1996,p.52) makes the point that 'to some extent, the availability of new technologies constituted as a system in the 1970s was a fundamental basis for the process of socio-economic restructuring in the 1980s'.

Another factor that re-inforced this process was the Fall of the Berlin Wall for, from that time it occurred, there has literally been 'no alternative' (Bauman, 1992) to capitalism; the global economic sub-structure was reinforced. Now the worldwide infrastructural driving force of social change is information technology driven by those who control capital. Castells (1996,p.145) makes the point that this has resulted in three major economic regions, Western Europe, America and the Asian Pacific - with other areas of the world associated with them - although he sees Russia as a fourth potential region.

These processes changed the structure of the work force, with a decline in manufacturing jobs and an increased demand for knowledge-based workers in some countries, but with new industrial workers in others. Indeed, Reich

postulated that they would be three major groups of workers - knowledge-based, service-based and routine production. He (1991,pp.179-180) indicated that the proportion of symbolic analysts (knowledge workers) has increased in the American work force from 8% in the 1950s to about 20% in the 1980s. He argued that it will continue to increase. Knowledge workers are:

> *..the creators, manipulators, and purveyors of the stream of information that makes up the post-industrial, post-service global economy. Their ranks include research scientists, design engineers, civil engineers, software analysts, biotechnology workers, public relations specialists, lawyers, investment bankers, management consultants, financial and tax consultants, architects, strategic planners, marketing specialists, film producers and editors, art directors, publishers, writers, editors and journalists.*
>
> *(Rifkin, 1995,p.174)*

Castells (1996,p147) also suggests a similar division of labour to Reich - with four main types: the producers of high value (knowledge workers); producers of high volume (based on low cost labour), producers of raw materials (based on natural products); redundant producers (devalued labour). He maintains that each of these types of workers is to be found in most societies, with differing proportions occurring in each country and region.

It is significant to note that at both the global level, and within the economic regions, there is this division of labour. At the heart of each region is the control of capital driving the technological forces of change. The more advanced a society the greater its proportion of knowledge-based workers but the less advanced have work forces that remain predominantly agricultural, service and manufacturing. Additionally, there are other countries that are socially excluded with most of their work force being redundant labour and having subsistence economies; these are among the world's poorest, for this is the inevitable result of globalisation (Bauman,1998). We can see, therefore, that globalisation is not necessarily a process that will only bring progress to the world - for some it will be the opposite.

However, it is the fact that there are increasing number of workers utilising rapidly changing knowledge that has led to the emergence of the learning society. More and more people have learn new knowledge in order to keep abreast with the current situation and so greater pressures are being placed on the educational system. It would be unwise to try to separate out distance education from the demands being placed in educational generally. Although the introduction of distance education is to a great extent one of

the ways in which the educational system has adapted itself to endeavour to respond to the demands of placed upon it. By governments and, essentially, by those who control capital and information technology, the dominant forces of globalisation.

Naturally, there are others who will use distance education both vocationally and non-vocationally. However, the fundamental fact is that the driving forces of globalisation are the control of capital in a competitive market place and information technology that has already provided us with the Internet and is about to provide us with mobile viewing access to it globally. Globalisation forces changes in the superstructure of society through the generation and utilisation of new knowledge. Knowledge has become a precious commodity in this global market and it is for this reason that the future of education in general is a discussion as we discuss the future of distance education.

The Future of Distance Education

Education is a part of the superstructure of the global society and it is this which is being pressurised to change. One of the ways that it has sought to change is to change its methods of production and delivery of courses. The British Open University set the scene, as it were, when it responded to contemporary demands to learn through using industrial production (Peters, 1993) methods to commodify its knowledge and market it through mass marketing techniques. It did this by creating multi-disciplinary modular degrees - both multi- or inter-disciplinary and modularity have become quite central to a great deal of contemporary distance education. Now more traditional educational institutions are being forced to alter the traditional structure of their degrees and other courses and to offer then through distance learning methods. Although the production and marketing techniques are less geared to a mass market and more to a rapidly changing market of knowledge workers utilising post-Fordist production techniques.

Having set the context, we can now discuss the future of distance education. I want us to do so by examining those five questions.

What is offered? At first sight the answer to this question might appear to be obvious but there are two factors that affect the response to this - the nature of the demand and the ability to supply. We have known about the pressures on education to supply the industrial market for a long time. As

early as the late 1960s, Kerr et al (1973) were telling us in Industrialism and Industrial Man (Kerr, et al 1973) that the world was about to change. In this sociological thesis, the authors argued that the industrialising processes at the heart of society would have a world-wide impact, producing a convergence in the social structures, a more open society and a more global one. While I do not accept that industrialisation is the driving force, I do accept their very telling claim about the place of education in this modern world - it is the handmaiden of industry, and they wrote:

> The higher educational system of the industrial society stresses the natural sciences, engineering, medicine, managerial training - whether private or public - and administrative law. It must steadily adapt to new disciplines and fields of specialization. There is a relatively smaller place for the humanities and the arts, while the social sciences are strongly related to the training of the managerial groups and technicians for the enterprise and for government. The increased leisure time, however, can afford a broader public appreciation of the humanities and the arts.
>
> *(Kerr et al, 1973,p.47)*

They recognised that the educational system would have to expand and that industrialisation would create an increasing level of education for all citizens. Naturally, education is broader than this, but the global market forces are driving education in this direction.

However, not all educational institutions will be able to offer locally everything that will be demanded from them or at the time when many people would wish to study, so that open and distance education systems have to be used increasingly to respond to the demand. If local educational institutions cannot offer everything, then potential students will have to look further afield for learning opportunities in the fields in which they wish to study - both in this country and abroad. The provision of learning materials by distance education is now a world-wide industry, and educational institutions form only one part of it. In Denmark it might mean that educational institutions have to adopt new strategies. In order to respond to the demands, such as entering partnerships in order to provide the breadth or depth material that is being demanded - which, in turn, has implications for the forms of delivery, qualifications awarded and the governmental policy about education in general. Even more, since English is so widely spoken here, it might mean that British, American and other providers of learning opportunities at a distance might enter and compete with Danish institutions for Danish students in the global market place of learning.

A question I will leave unanswered at present is - do the educational institutions have the ability to supply on demand the relevant work-based practical knowledge?

Naturally, there is another demand, as the British Open University has demonstrated in the UK and abroad. Many people like to learn in their free time, and they like to learn about non-work subjects as well as work-based ones, although research in the UK suggests that work demands are the main motivator of adult learning (Sargant et al, 1997). Consequently, there is need to offer wider curricula than work-based ones.

Who uses it? Naturally, there are potential students for distance education in liberal adult education. Although I think a major question for a country with the adult education traditions of Denmark is whether the liberal and humanistic questions will be met by the face-to-face Study Circles and the Folk High Schools in the future, or does distance education have a place even here. There is another potential clientele - third agers. In the United Kingdom, computer studies are amongst the most popular studies and there are many third agers studying for Open University qualifications.

However, for a conference with a vocational education orientation, it must be said that amongst the major users will be those who need to study for their work, but who cannot travel to where a relevant course is being offered, such as:
  • Those entering the work force
  • Those undertaking continuing education, especially the knowledge workers, but also all the remainder of the work force who are required to use the knowledge that has been developed,
  • Workers in the work-place by having work stations through which they can consult and seek answers to their immediate learning needs - some of this is implicit in the idea of the planned British university for industry - but which corporates are already using.

Their demands will be for relevant work-based practical knowledge that will carry some form of accreditation so that workers have public recognition of their knowledge when they enter the labour market again, etc. Practical knowledge is frequently interdisciplinary and so we to recognise that this entails a major change from the traditional academic disciplines. Additionally, relevance is a relative concept, as we know. And with the speed of change of positive and technical knowledge we can expect that courses need to change with great rapidity to respond to the demands being placed on the supplying educational institution - which once again raises the question about the ability of educational institutions to meet the

demand. Like all other commodities in the market place, educational pro-grammes will have a very limited shelf-life.

How it is offered? This question is both a technical and a pedagogical one. Let me deal first with the technical one - distance education began some 160 years ago with didactic and skill-based vocational education courses, which were conducted through the emerging mail service in England. Correspondence has formed the basis of distance education ever since, and still does, but with the development of information technology this is changing. But the extent to which written texts will, in once way or another, retain their place is an open question. At present text-books still have a major place and many courses are constructed around set texts - text-books are even prepared to go with courses and published independently and commercially. Written texts may well form a base line but the study guides written for the course and included within the programme no longer need be published paper-based. The authors of material usually produce their work on computer, there is no reason why copies of this might not be sent as e-mail attachments to students - or even a floppy disk for someone who has a computer but no access to the Web, etc. Certainly a combination of written text and electronic communication has become a very effective and common mode - I often get e-mails from students wanting to discuss an assignment which is contained within a written text and then they send their assignments by e-mail. I print them off, mark them and return them by more normal means, since I prefer to engage in a debate with the student in my marking and I write on the text easier than I do on the screen. I certainly supervise higher degree research by e-mail and with students around the world - at the University of Surrey we have students undertaking our Masters degree in 36 different countries and doctoral students in quite a number. However, we do find that students will travel for summer schools, weekend courses and so on - they still like the face-to-face. It is here again that weaker students can be supported - but mixed mode delivery with varying amount of distance and face-to-face seems to be one of the ways forwards.

But as information technology becomes even more advanced, it will be possible to use video with e-mails so that we will be able to have individual video conferencing; video conferencing and the use of compressed video between different sites will also grow. Cable communications offers similar facilities. Through video conferencing, it becomes possible for a lecture to be delivered simultaneously throughout the world to a variety of different classrooms, etc. Now this means that it is now possible for experts in one country to deliver lectures and respond to questions etc. in other countries,

and this raises a major problem for academics in different countries if experts are being brought in 'live' by video. Consequently, we might well see that distance learning utilise more leading academics or gurus for greater parts of their courses.

Increasingly, vocational education courses are becoming web-based. The production of these courses requires considerable skill and a lot of finance. This is not always available in normal colleges and so we are beginning to see private companies having financial capital emerge to offer partnerships with colleges and universities in the production of these programmes. I myself act as a consultant to one such company, which is about to launch Virtual Academy.Com on the Web offering vocational education world wide in partnerships with academics and professional trade association.

E-mail also offers opportunities for students working alone to be put in touch with tutors and other students, creating peer-learning communities - this brings us to the pedagogic expertise used in distance education. Many early forms of distance education were no more than didactic lectures, with brief study guides and further reading, sent through the mail. Occasionally, face-to-face contact was arranged either between tutors and students or between other academics (who were not the authors of the material) and students. These support services became very important for all students, but especially the weaker ones. However, support services cost money and there has been a tendency to scrimp on these in order to produce courses more cheaply.

Currently, there are many more sophisticated methods of producing study materials and involving students in their course of study. The more those who plan distance education need to understand many of these processes, most of which demand a much more sophisticated understanding of adult learning since distance education must increasing become learner-centred. Who offers it? At first sight the answer to this question is obvious - educational institutions of course. But this is where some of the great changes are occurring. The global market has produced a learning market (part of our understanding of the learning society), but it has also produced a situation where the demands for new knowledge and new learning opportunities are great and immediate. But, there are reasons to doubt whether education can always respond to these demands sufficiently quickly, as I have found in my own experience. Eurich (1985,p.15) commenting on American higher education wrote:

Differences in mission between the two systems have led, however, to marked contrast in styles that hamper cooperation. Higher education enjoys a more leisurely and wider time frame with such traditional academic routi-

nes as 50-minute class hours three times a week. Some say the routines are hardened, rigid, and encrusted to their own detriment. To the corporate world, with its pattern of short-term, intensive hours, and highly motivated employee-students, academia appears luxurious. In their world "time frames" are costly and company controls well understood.

If corporations cannot find the programmes that they need for their employees - they will employ a number of different strategies. They might:
- Commission educational institutions to produce the course for them;
- Seek partnerships with relevant colleges and universities in order to co-produce a course;
- Produce their own educational institutions - the corporate universities.

Eurich noted in the United States that the colleges were more able to enter such partnerships than the universities, but more significantly the corporations established their own universities. Rowley et al (1998,p.34) pointed out, for the United States, that:

> ....the business world will redefine both its educational linkages and its providers. In 1995, corporate training budgets totalled $52 billion, an increase of 15% from 1990. Over one thousand corporate universities are already in place.

Do not be put off by the term "university", for most of them work at further education level - but many of them provide distance education/open learning packages. Some of the corporate universities are also entering partnerships with the colleges to offer degree courses, other actually offer their own degree courses and even some at postgraduate level. Here we have a new development in both distance and open learning programmes being offered. For many of these the transnational companies and their universities train their own work force world-wide. And some of them also take other students and as vocational continuing education is estimated to be worth $300 billion per annum (Katz, 1999, p.11) in the United States alone, it would not be surprising if the corporate universities did not enter the market. Indeed, Meister (1998, pp.51-53) suggests that even the corporate universities being expected to be self-funding.

What is the place of education within all of these changes?
One thing is clear. Educational institutions are no longer the sole providers of education and training in their own countries and they may have to compete with educational institutions offering courses from abroad or with the corporations themselves which are forming their own universities which do

not necessarily only cater for their own employees. Educational institutions can try to:

- Go-it alone;
- Enter partnerships with other educational providers;
- Enter partnerships with the corporations;
- Enter learning networks.

They might be very weak if they try to go it alone since they may not have the technical expertise nor the breadth of academic knowledge and skill. Consequently, it seems to me that the future of education will incorporate distance education and perhaps tend to offer mixed mode courses. At the same time, it would be unwise to assume that educational institutions will ever again have the monopoly of providing education and training. And that in the learning market, educational institutions might be as vulnerable as other companies to the forces of the market unless they are deliberately protected by the Danish government. This then is a policy decision that must be faced as education moves into the global learning market.

The Nature of Adult Learning

In order to prepare learning materials for open and distance education programmes, which will hold even the weaker students, it is necessary to understand adult learning. Adults learn from their experiences of everyday life and we can define the learning process thus: Learning is the process of constructing and transforming experience into knowledge, skills, attitudes, values, emotions, beliefs and the senses. In short, it is the process of taking our everyday experiences in the world and making them part of ourselves. It is the process by which we become ourselves.

Over the past fifteen years I have been seeking to understand the learning process as a result of research I carried out in the mid-1980s. (Jarvis, 1987, 1992, 1995; Jarvis et al, 1998). Learning is not a single or a simple process. Rather it is complex and has many facets, some of which happen at the same time, and so on. I do not have time to discuss my understanding of learning in full here but I want to produce three diagrams in order to illustrate my argument.

The diagram (shown on the next page) looks rather complicated at first glance, and it is. Even so, it is a an over-simplification of the complex processes through which we go every time that we learn. However, we can see that there are four routes out of experience (box 3) - the first goes to box 4.
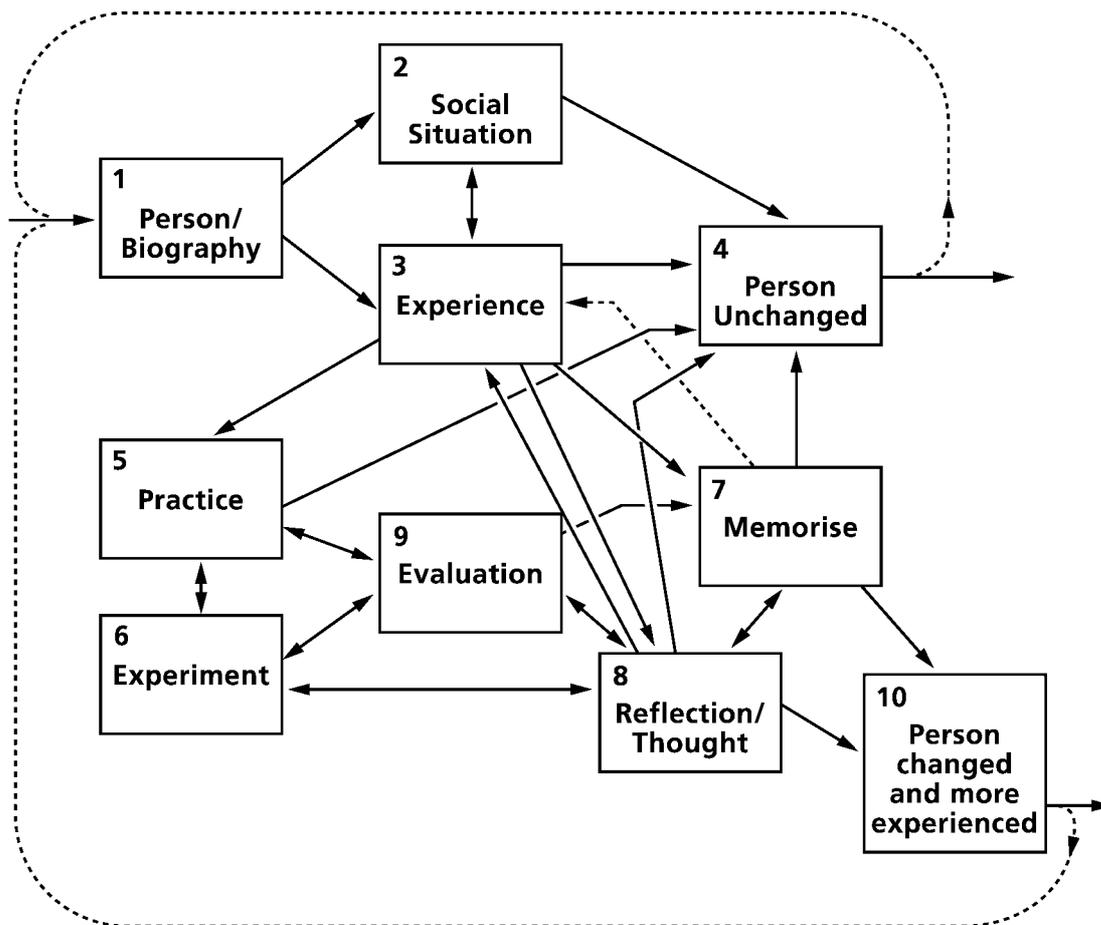
Now this indicates that on occasions we do not learn anything from the experience, for whatever reason, and so we do not grow as a result.
But look at the remainder of the routes - to:
Box 5 - we practise what we have experienced - we do something, and we can experiment;
Box 7 - we memorise what we have experienced - rote learning;
Box 8 - we think and reflect upon what we have experienced - this can result in accepted the knowledge or the procedure with which the learner has been presented or seeking to change it.

The significant thing about this complicated diagram is that there are a variety of routes through it indicating that there are many forms of learning. And they can all occur in distance education, so that it is essential that those who devise the distance learning materials understand these routes and take the learners through them. There are at least nine types of learning:

Category of response to experience	Type of learning/non-learning
Non-learning	Presumption[1-2-3-4] Non-consideration[1-2-3-4 or 1-2-3-8-10] Rejection[1-2-3-4 or 1-2-3-8-10]
Non-reflective learning	Preconscious learning[1-2-3-7-4] Skills learning[1-2-3-4-5-7-4 or10] Memorisation[1-2-3-7-4-or-10]
Reflective learning	Contemplation[boxes1-2-3-8-9-6-7-10] Reflective skills learning[1-2-3-5-6-9-7-10] Experimental learning[1-2-3-8-9-6-8-9-7-10]

However, another significant element in this diagram is that the situation within which the learners have their learning experiences need not be the classroom - indeed, it may be the work-place. Distance education can help learners learn knowledge, skills attitudes, emotions and do on and it can also produce reflective practitioners (Schon, 1983). The distance education course has to be designed to utilise the different types of situation, within which the experience occurs, helping the learners to crystallise their learning in the work place, even that learning which occurs incidentally. The following diagram illustrates different forms of leaning situation.

	Intended	**Incidental**
Formal	Box A	Box D
Non-formal	Box B	Box E
Informal	Box C	Box F

In the above diagram:
Box A is formal education and training in an educational institution;
Box B can refer to instruction of an on-going nature that occurs in the workplace, mentoring, but it can also refer to the type of learning that

goes on in distance education when we take learning materials and study them - informal teaching and learning;

Box C is self-directed learning - it is the type of learning that we undertake when we decide to teach ourselves a computer programme, and so on - it can be individual or a group project;

Box D refers to that incidental learning that occurs in formal situations, not always educational, but which was not intended by the planners of the learning experience, such as the realisation that the instructor is not really as knowledgeable as we thought, or the room is too hot, etc;

Box E also refers to incidental learning situations in non-formal learning episodes;

Box F refers to everyday learning, which is probably the most common situation of all, especially in rapidly changing societies. In these we find ourselves in new situations and we have to learn how to cope - these we do thinking on our feet about our next action, and so on. Occasions like these happen frequently at work, and in distance learning we can help the learners capture their experiences, contemplate them and understand.

Designing distance education materials is a very sophisticated process - we need to consider carefully what we are trying to do, who are our clients, and so on. If we also have good support systems in place, we can help learners through a variety of learning processes. We can also respond to the types of demand that the learning market places upon us.

Conclusion

Distance education is neither an easy nor a cheap option. However, it has tremendous advantages in the global world, and if used wisely it can be a very effective method of teaching and learning. We do have to be aware, however, that it is a global market and there are many players in it. Not all of them will prepare their materials as well as us and if we produce excellent distance education materials, then I am confident that the education system will continue to offer a major service.

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With these working-papers **tbc-Consult** and **DEL** hope to help to develop a better understanding of the profound changes that are taking place in learning today. The old and traditional ways of learning have become irrelevant in methods and also in purposes. We therefore have to create new ways of learning for a changing world. We hope that these papers will help with experience and inspiration.

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