Module 3: The cost-effectiveness of distance education institutions

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Module title: The cost-effectiveness of distance education

This module develops the concept of cost-effectiveness and cost-efficiency (the first two Units) and applies it to distance teaching institutions (Units 3 to 6). In detail:

- **Unit 1 develops the concepts of efficiency and effectiveness as applied to distance education.**
  Efficiency, it turns out, is a concept relating inputs and outputs; effectiveness is very different: it has conceptually nothing to do with relating inputs to outputs (or outcomes) but to measure the extent to which goals are achieved.
- **Unit 2 relates the concept of efficiency to cost-effectiveness ratios**
  Cost-effectiveness combines conceptual aspects of efficiency and effectiveness. It relates to efficiency since it is about input outcome relations. It relates to effectiveness because the outcome measure is an effectiveness measure. essentially it asks about how the cost of inputs relate to level of goal achievement.
- **Unit 3 introduces as case study 1 the British Open University (OUUK)**
  The British Open University is often regarded as the Rolls Royce of Distance Education. We need to focus on understanding the organizational arrangements and technological choices by with the institution achieves economies of scale and high quality.
- **Unit 4, case study 2, looks at the Chinese Open University (COU)**
  The Chinese Open University is distinctively different from the OUUK, which has been the template for many open universities in the West, in many respects. It is a university system rather than a university.
- **Unit 5, case study 3, informs about the Indira Gandhi Open University (IGNOU)**
  The Indian Open University followed the British template. Be use it especially to illustrate the concept of scale economies, i.e., how average costs can be brought down by large enrollments.
- **Unit 6, case study 4, discusses the University of South Africa (UNISA)**
  UNISA is arguably the oldest distance education university in the world. It is of special interest since it is confronted with the challenges of transition to using digital technologies in the face of a level of reception costs many traditional distance learners in Africa may still have difficulties to carry.

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List of Topics and Sub-Modules for Module 3: The cost-effectiveness of distance education institutions

- Module 3 - Readings

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  Actions for 'Module 3 - Readings'

- Module 3 Unit 1: Efficiency and effectiveness

  Discussion Topic

  This section explains the notion of cost-effectiveness and how it is measured. We also review some of the evidence for the cost-effectiveness of distance education.

  - Efficiency and effectiveness: the concepts;
  - Efficiency and cost-effectiveness ratios
  - Institutional cost-effectiveness

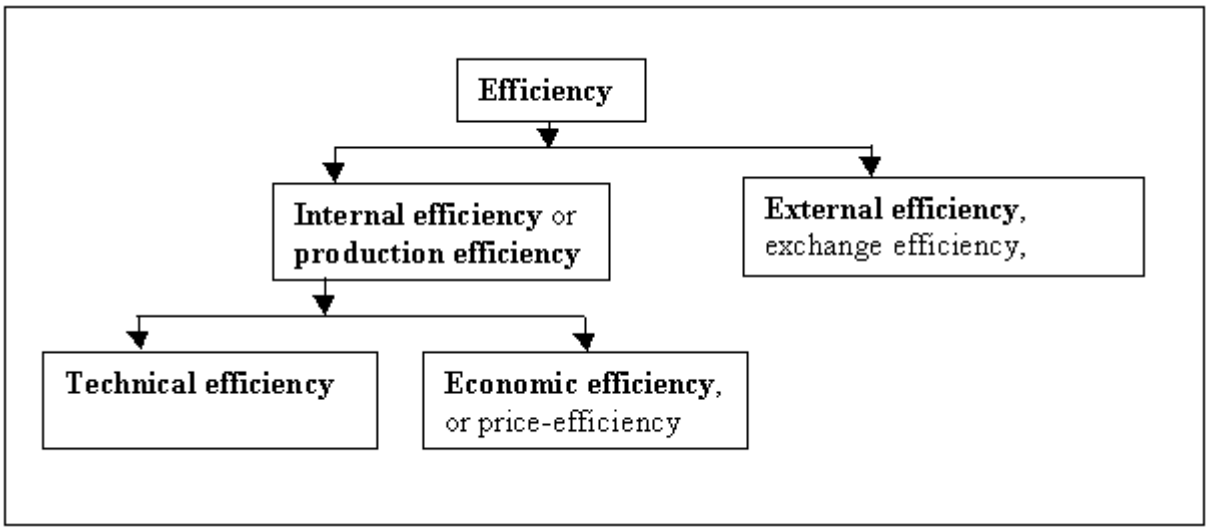
  Efficiency and effectiveness: the concepts

  There is a handy phrase coined by Drucker that '*efficiency is about doing things right and effectiveness is about doing the right things*' (cf. Mace, 1996). Doing things right means achieving the optimal relation of *inputs* and *outputs* (or outcomes).

  Efficiency / cost-efficiency

  In this sense a procedure is *efficient* if it maximizes the output/input ratio.
  (You may ask how it could be that one could have a different output/input ratio if the inputs are really the same. Generally one could argue that the difference in the output/input ratio is due to different levels of expertise, different organizational arrangements or uses of different machines. Indeed, simple organizational arrangements may have considerable impact on effectivenss; for instance a garage where there is a clear regime of storing tools and spare parts is likely to be more efficient even than a garage where this is not the case even if they both employ the same quantity and quality of workers.)

We can distinguish two types of efficiency: **production efficiency** and **economic efficiency** (or **cost-efficiency**). An increase in production efficiency means achieving more output for a given input, while an increase in cost-efficiency means reducing the costs of inputs for a given output.
Cost-efficiency is looking at the output/input ratio where the input is measured in monetary terms. (It may be more cost-efficient to have an operation in India than in the USA. Not because the resource input is different but because the labor costs are lower in India.)



The distinctions in the figure above are largely self-explanatory: *Internal efficiency* looks at the efficiency of the process producing the outputs and corresponds to Drucker's '*doing things right*'. *External efficiency* is more about '*doing the right things*': are the outputs you produce are the outputs you want (or the market wants)?

Internal efficiency can be improved in two ways: (i) increasing the output with the same set of inputs (*technical efficiency*); (ii) reducing the costs of inputs while keeping the output unchanged (*economic efficiency*, cost- or price-efficiency).

In order to compare efficiency you generally assume that outcomes are largely the same.

Effectiveness

The notion of **effectiveness** is about *doing the right things*, i.e. achieving the set goals. Effectiveness measures can be defined in a binary manner (i.e. goal achieved / not achieved) or by specifying a percentage by which the goal has been achieved (e.g., 42% in a test). Obviously the way one achieves one's goal will not necessarily be the most efficient way of doing so. *This means you can be effective but inefficient*.

Can you also be *efficient without being effective*? In a way you can: You may very efficiently produce a product that nobody wants to buy. You manage to get cost per unit

to be low and the production process to run smoothly. But if you 'produce without a market' you are not effective in achieving the objective of making good profits. (In distance education, for example, your degree-program might be cost-effective but your students might remain unemployed. This shows that effectiveness depends on the specified goals: a program may be judged as effective by internal standards when students pass their degree and pay their fees; the same program may fail by external standards, e.g. if students are not productively absorbed into the labor market.)

Cost-effectiveness

Cost-effectiveness refers to the most efficient way to achieve a set goal. Cost-effectiveness maximizes the ratio of outcomes/costs of inputs. We speak in educational contexts of **outcomes** rather than **outputs** since in most cases the outcomes are not directly countable as outputs usually are.

There is no general agreement about when to use the word cost-effectiveness and when to use the word cost-efficiency. However, there is some agreement that outcome measures should relate to learning (i.e. learning gains). Hence we would refer to **cost per learning gain** as a cost-effectiveness measure. Some authors (e.g. Rumble, 1997) speak of cost-efficiency when it comes to **cost per student** and even **cost per graduate**. We would suggest that the cost-efficiency and cost-effectiveness are used analogous to outputs and outcomes: If no educational assessment is involved, we would refer to cost-efficiency, e.g. cost per student would be an efficiency measure. If educational assessment is involved, we would refer to cost-effectiveness, e.g. cost per graduate would be an effectiveness measure.

Greville's explanation of the concepts
Greville Rumble gave the following illustration of the different concepts in OMDE 606 Fall 2006; Greville wrote to a student finding the distinctions difficult:

Don't worry too much - I still find the distinction difficult: and to make it worse (for you) I am never quite sure if Thomas and I agree!

Cost-efficiency seems easy enough: you are cost efficient if you spend LESS money on achieving the same output (say product A) as someone else spends on an equivalent product (product B, C, D, ...n). The assumption is that the outputs are equivalent (in quality or in effectiveness). I produce a roast chicken for $ 2.49; Chikiroasts down the road produces a roast chicken for $ 2.99. I am more cost-efficient because I spend less on the same output. NOTE that the focus is on the amount of input. The output is just assumed to be equivalent. Systems become more efficient if they reduce the amount of input required without changing the output.

BUT of course not all products are of equivalent quality. What if Chikiroast is using organic chickens and mine are factory farmed. The products are not the same though they look like it. Can we unpack the is in terms of (a) *effectiveness*, and (b) *cost-effectiveness*?

Effectiveness is concerned with OUTPUT - one is effective if one's products are relevant to the demands and needs of clients - if one's products are "fit for purpose". There is an implicit standard or quality that one has to meet or surpass to be effective. Your sense of effectiveness could derive from the fact that:

- your product meets an *absolute* standard (say - 98% of children must get a Grade A to C in English Language). You are judged to be INeffective if only 97% get that standard.
- alternatively you may make a judgement about your effectiveness against another provider: In Beacon School 96% of children get an A to C grade in English Language; in Betta School 89% get an A to C; Beacon is more effective than Betta. Here you measure *relative* effectiveness.
- or you can measure effectiveness in terms of *value added*. Entrants to Beacon School gain 75% A-C in English proficiency pretests, but 96% in final exams; At Betta School they get they get 56% in pretests, 89% in final exams. Using Cowan's approach (p. 164 of Rumble 1997) you have:
    - Beacon: gain ratio = (96-75)/(100-75) = 0.84
    - Betta: gain ratio = (89-56)/(100-56) = 0.75

Beacon is more effective.

Note that in what we have said about *effectiveness so far we have looked only at the output*; we have not looked at the amount of input required to achieve that output.

Note also that:
- your product could be just as effective as it needs to be, to satisfy customers, and no more. Let's define this as Quality level 5.
- your product could be more effective than it needs to be - i.e. it could surpass customer expectations. Here your quality level would be more than 5 - say 6.

Of course if the quality were the same we could just look at the input and say yes, X is more or less efficient that Y. So if for example both Beacon and Betta had 92% of children getting grade A-C in English and it cost $ 420 per child to achieve this in Betta and $ 452 per child in Beacon, we could say that Betta was more *cost-efficent* that Beacon; but we can only do this because the quality of the output is the same.

However, in the situation we have posited, the quality of the output is not the same. Also we might have a situation in which we are exceeding customer demands (providing quality 6 as vs 5) and the cost of that additional 1 in quality is very high. We could satisfy demand fully and lower out quality. What we need is a relationship between quality of the output and amount of input that takes account of the fact that the quality of the output achieved by different systems may be different. And that is what ***cost-effectiveness*** tries to do. Thus Neilsen and Tatto's study reported on pp 169-170 (and Table 14.3 and 14.4) where the attempt is made to recognise and put a cost on different quality outcomes.

Does this help?

Greville

The bone of contention between Greville Rumble and Hülsmann is that Hülsmann would classify *cost per graduate* gnerally as a *cost-effectiveness* measure since graduation involves a quality assessment rather than a head count (as in the case 'cost per student'). If for practical purposes, however, you assume that 'a graduate is a graduate is a graduate ...' the cost-effectiveness calculation is not different from cost-efficiency calculations. Hence much of what Greville discusses in the cost-efficiency chapter, especially issues relating to cost per graduates, would (according to Hülsmann) be better subsumed under the concept of cost-effectiveness.

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References:
-- Rumble, G. (1997). *The costs and economics of open and distance learning*. London: Kogan Page.

- Module 3 Unit 2: Efficiency and cost-effectiveness ratio

Discussion Topic

The easiest (though rather uninformative) way of measuring *cost per student* is to divide all the total costs of the system by the number of students. Quite often, when using *cost per student* to compare **open and distance learning (ODL)** with **conventional education (CE)**, ODL does well. However, when the measure is *cost per graduate*, the picture changes. Often high drop-out rates impact negatively on the cost-effectiveness measures of ODL.

Note: Fors the purpose of this discussion open and distance learning is the same as distance education: ODL = DE. Much of the Material was developed for the Commonwealth of Learning (CoL) which preferably used the term ODL.

Efficiency ratios

The **relative cost-efficiency** is defined by the following efficiency ratio:

$$\text{Efficiency ratio} = \frac{(\text{cost / student})_{\text{ODL}}}{(\text{cost / student})_{\text{CE}}}$$

If efficiency ratio = 1 then both systems are equally efficient
If efficiency ratio >1 then ODL is less efficient
If efficiency ratio <1 then ODL is more efficient.

Example:
Assume the cost/student in the ODL system are US$ 250 and the cost per student taught by conventional method is US$ 950, then the efficiency ratio is:

$$\text{Efficiency ratio} = \frac{(\text{cost / student})_{\text{ODL}}}{(\text{cost / student})_{\text{CE}}} = \frac{\$\,250}{\$\,950} = 0.26$$

Since the ratio is <1 the ODL system seem more efficient in terms of cost per student.

Cost-effectiveness ratios

Cost-effectiveness analysis is an approach to inform decision making and not a substitute for it. For different options or strategies, cost and outcomes are related as a ratio. Outcome measures may measure institutional effectiveness, such as number of successful graduates, or scores in learning gains.

We can think of ODL as a strategy to deliver education with parameters such as:

- unit costs
- success rate (as opposed to drop out rate).

Cost-effectiveness ratios (CER) and decision-making

Case 1	Case 2
Cost unchanged or reduced, effectiveness unchanged or reduced, i.e. *Cost A <= cost B* and *effectiveness A <=effectiveness B* **Decision: explore further**	Cost increased, effectiveness unchanged or reduced, i.e. *Cost A > cost B* and *effectiveness A* <= effectiveness B **Decision: opt for ODL**
Case 3	**Case 4**
Cost unchanged or reduced and effectiveness raised. i.e. *Cost A <=cost B* and *effectiveness A > effectiveness B* **Decision: reject ODL**	Cost increased and effectiveness raised, i.e. *Cost A > cost B* and *effectiveness A > effectiveness B* **Decision: explore further**

Note: The sign <= in the above table means: **smaller or equal**

In the above table B stands for ODL and A stand for conventional approaches to teaching. We can then identify four possible cases. Two cases (2 and 3) lead to clear decisions as to whether to use ODL or not. The other two cases (1 and 4) require further investigation before a decision can be reached.

Case 2 in the above table (with B standing for ODL), is the one most often used in practice. We assume that the outcomes are similar, e.g. we assume that a traditional graduate and an ODL graduate represent the same outcome. Given the assumption of equal outputs, the cost-effectiveness ratio becomes a cost comparison, and we opt for the strategy, which produce the lower cost graduates.

Example:
Assume that for a particular ODL system the cost/student is US$ 250 and the success rate is 40%. So the cost per graduate (a cost-effectiveness measure) is:

$$\text{Cost per graduate}_{ODL} = \frac{(\text{cost / student})_{ODL}}{\text{success rate}_{ODL}} = \frac{\text{US\$ 250}}{40\%} = \text{US\$ 625}$$

Obviously the cost per graduate is considerably higher than the cost per student since the costs for both graduating and non-graduating students are being applied to the graduates alone.

Assuming that for a particular conventional course the cost/student is, e.g. US$ 950 and the success rate is 70%, then the cost per graduate is:

$$\text{Cost-effectiveness}_{CE} = \frac{(\text{cost / student})_{CE}}{\text{success rate}_{CE}} = \frac{\text{US\$ 950}}{70\%} = \text{US\$ 1357}$$

Re-calculating the efficiency ratio on the basis of this cost-effectiveness measure we get as new efficiency ratio:

$$\text{CER} = \frac{\text{cost-effectiveness}_{ODL}}{\text{cost-effectiveness}_{CE}} = \frac{\text{US\$ 625}}{\text{US\$ 1357}} = 0.46$$

Note: Cost-effectiveness is an efficiency measure. The CER is an efficiency ratio for comparing two systems on the basis of a specific cost-effectiveness measure (cost per graduate). This means that even though the efficiency ratio has deteriorated in the transition from the **cost per student** to the **cost per graduate** measure, ODL still is judged as being more efficient (or, more precisely, even more cost-effective) though it has lost some of its edge due to its higher dropout rate (reflected in the efficiency measure being nearer to 1).

Activity A13: Efficiency and cost-effectiveness ratios

This activity allows you look at the effects of dropout/retention on efficiency ratios. High dropout rates have negative impacts on efficiency ratios based on cost-effectiveness ratios.
1. Use the spreadsheet Activity A13 for this.
2. Try changing cost per student and dropout rates for the two modes.
3. Observe what happens to the cost-effectiveness ratio.
Click here

Activity A14: The effects of drop-outs

In this activity you can see what can happen when you try to increase efficiency by lowering student support. While you may improve efficiency (cost per student) you may decrease your cost-effectiveness (measured as cost per graduate).
1. Use the spreadsheet Activity A14 for this.
2. To lower student support, enter a figure in cell F11. e.g. to lower student support by 10%, enter 0.01.
Click here

Comparing cost-effectiveness: illustrations

Much of the cost-effectiveness research compares cost per graduate without first making sure that graduates represent the same output. In the 70s and 80s a series of such studies based on comparable methodologies was undertaken. They showed that in many cases ODL is cost-effective, though less so when it comes to cost per graduaterather than cost per student. Some of these studies are summarized in Table 10.

It is rare to find a case where the efficiency ratio of ODL is not favorable. Even in terms of cost per graduate the outcomes of ODL are more favorable. (Though in some cases distance teaching institutions do not count graduates as 'full credit equivalents'.) These positive results have not led to widespread acceptance of ODL.

Cost-effectiveness ratios

Institution	Efficiency ratio	Cost-effectiveness ratio	Source and comment
School level			
Malawi Correspondence College (MCC) vs. conventional day secondary school boarding school	0.62 0.23	1.60 0.73	Wollf and Futagami, 1982a Note that the cost to produce a graduate is higher for the MCC!
Air Correspondence High School, Korea vs. regular high school	0.18	0.22	Lee et al. 1982a
Teacher education			
LOGOS II (Brazil)	n/a	0.05 - 0.08	Oliveira and Orivel, 1993a
Primary teacher orientation course at AIOU (Pakistan) vs. conventional university	n/a	0.45 - 0.7	Perraton, 2000
University level			
Open University UK vs. conventional university	0.26 0.41	0.38 - 0.45 0.53 - 0.70	Wagner, 1977a Rumble, 1976a
STOU Thailand vs. conventional university	n/a	0.14	Lockheed et al. 1991a

Notes: ***a:*** based on Rumble (1997, p. 143)

Take some time in experimenting with **Activity 14**. It illustrates that the relentless drive for increase efficiency may not translate to improved cost-effectiveness. If a quality institution wants to achieve a high quality measured in cost per graduate they need to be cautious with their quest for efficiency. - View also the Wimba demonstrations below.

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Room ID: thuelsmann1_01

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-- Rumble, G. (1997). *The costs and economics of open and distance learning*. London: Kogan Page.

- Module 3 Unit 3: Case study: The Open University UK

Discussion Topic

Institutions need to find the right range of courses to offer. Generally, an institution has to offer a minimum range of courses to be credible, or even in order to be visible. However, from a simple efficiency perspective it would be best to specialize on a few best-selling courses. Offering more courses increases costs but this can be offset by increasing the number of students. Mace (1978), for instance, proposed reducing the number of costly multi-media courses at the British Open University (OUUK) in order to reduce costs.- We need to explore the relation between scale economies and range of courses, which we do below.

Scale and scope

The model of open and distance learning discussed so far is predicated on the assumptions that quality can be safeguarded by:

- high quality course materials
- implying a high level of fixed costs for course development
- and that these fixed costs should be spread over many learners (economies of scale).

However, in reality, potential student markets may be smaller than required. Specialist courses in higher education for instance seldom draw large audiences. This situation poses a dilemma, especially for institutions of higher education. If an institution follows the logic of efficiency it would focus on courses with high enrollment. In other words, it would only offer best-selling courses. However, by doing this an institution may fail in its social remit of expanding access to education. In fact, too limited a range of courses may damage the prestige of an institution, and may prove to be counterproductive.

We now need a formula to help us explore how total costs are affected by the number of courses offered in a particular ODL institution. The formula is as follows:

TC= F + VC x M + V x N
AC(N) = [(F + VC x M) /N] + V

Where: F = Fixed costs; VC = Variable cost per course (per year); M = Number of courses; V = Variable cost per student; N =Number of students

Activity A15:
Scale and Scope I

1.	*Use the spreadsheet Activity A15 for this.*
2.	*Note that you cannot change any of the data in this spreadsheet - it is for observation only.*
3.	*The graph illustrates that average costs per student fall as student numbers rise but rises as the number of courses increases.*
(Data are projected unit costs per student in UK GBP at the OUUK. They are taken from UNESCO. (2002). Trends, policy and strategy considerations. Paris: UNESCO.(p. 74))	

Click here

Activity A16:
Scale and Scope II

1.	*Use the spreadsheet Activity A16 for this.*
2.	*Here you can now see the formula behind Activity 15: AC(N) = [(F + VC x M) /N] + V.*
3.	*This time you can try changing the number of courses to see the effect on average costs.*

Click here

Innovation: the proportion of new and old courses

The higher the proportion of new courses to old courses, the higher an institution's costs will be. This is because new courses involve high fixed costs. We therefore need a formula to help us explore the effect on costs of varying the ratio of new to old courses. The formulae are:

TC= F + VCnew x O + VCold x P + V x N
AC(N) = [(F + VCnew x O + VCold x) /N] + V

Where: F = Fixed costs; VC = Variable cost per course (per year); V = Variable cost per student; N =Number of students; VCnew = annual annualized variable development costs per new course; VCold = annual variable development costs per course in presentation; O = Number of new courses; P = Number of old courses

Activity A17:
New courses

In this activity you can see how producing new courses affects average cost.	
1.	*Use the spreadsheet Activity A17.*
2.	*Try changing the proportion of new courses to all courses. What happens?*

Click here

All this suggests that from the point of view of efficiency, an ODL institution should have a limited range of courses. These courses should have high enrollments with long shelf lives. If possible, they should make use of media with low variable costs, as we will see in the next section.

Activity: List some similarities and differences between the OU and UMUC. Why do you think the OU failed when it tried to enter the US market?

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References:

-- Mace, J. (1978). Mythology in the making: is the Open University really cost-effective? *Higher Education, 7*(3), 275-308
-- Murray, J. (2010, Tuesday 19 June). *Young students flock to the OU*. The Guardian.
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http://www.open.ac.uk/about/documents/about-facts-figures-0910.pdf

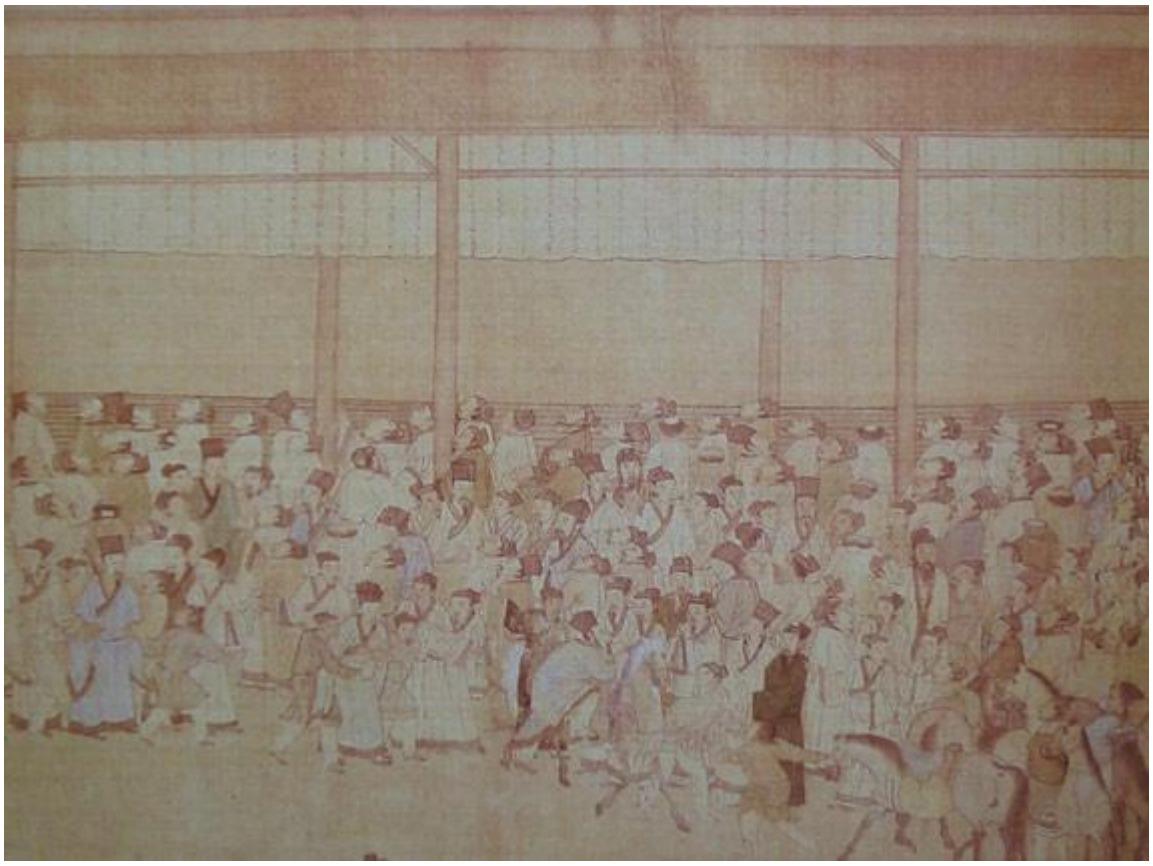
- Module 3 Unit 4: Case study: The Chinese Open University

Discussion Topic

China is a fascinating country if only for the simple two reasons, its numbers and its history. Each fifth person on earth is Chinese. If you look at international statistics (e.g., educational statistics) including or excluding China makes often a huge difference. (As an aside: the Worldbank arguments that its policies have achieved substantial contributions in reducing poverty depend much on including China: the statistical figure show reduction in poverty if China is included; if China not included the figures are much worse; the interesting observation is that China did not follow Wolrdbank advices

… Hence using the statistics on poverty reduction cannot be used as an endorsement of the policies of the World Bank and the International Monetary Fund.)

The other reason is history ranging back to the Shang Empire 1600 before Christ. For our context it may be of interest that China has the oldest examination system of the world. In its early forms it dates back to the Han Dynasty (206 BC). As a fully fledged system the 'Imperial Examination System' in China lasted for 1300 years, from its founding during the Sui Dynasty in 605 to its abolition near the end of the Qing Dynasty in 1905.



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(Again as an aside: Most people wonder about China's recent ascendance as an economic power; what they forget, however, is to ask about China's decline which ironically started when European led forces forced China to allow the free trade of opium (cf. opium wars).

China Central Radio & TV University (CCRTVU), recently renamed the Chinese Open University (COU), is strictly speaking not a university but rather a university system consisting of 44 provincial RTVUs and meanwhile 956 branch schools at prefectural and city levels, 1875 working stations at county-levels, and 3292 teaching venues (reference year 2007).

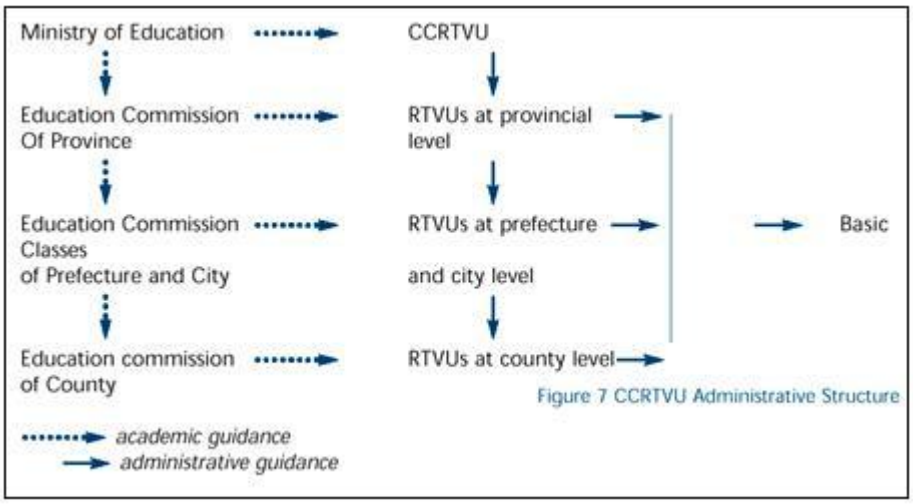

Figure 7 CCRTVU Administrative Structure

CCRTVU serves mainly the non-traditional student, i.e., the working adult with family. Its history is usually divided into three stages: During the first period (1979 – 1986) distance education was regarded as offering a 'second chance', i.e. compensating for lack of access opportunities to traditional education. During this phase of developing own programs and courses CCRTVU mainly borrowed materials from other universities. The second stage (1987 – 1998) is regarded as a period for sustainable development. During this period, CCRTVU developed into the systematic national distance education network depicted in the diagram.

The third stage, from 1999 onwards is characterized by more extensive applications of ICT. During this period, the CRTVUs together with other 67 e-colleges have been involved in the development of 'modern distance education'. RTVUs at different levels have been connected via satellite TV and internet. (As an aside: many of the e-colleges were again closed later on. Afforded with the permission to enroll and charge students as they pleased many e-colleges saw e-learning mainly as an opportunity to make money and enrolled beyond capacity. There were even protests from conventional students who had completed highly competitive entry examinations and found now students allowed in without similar screening who at completion got the same degree as themselves. Since in China quality control is centralized the MoE was able to step in quickly and close a substantial number of these colleges.)

Since 1979 CRTVUs have trained more than 6 million graduates at tertiary level and there have been more than 40 million in non-degree education programs. These numbers represent more than 75% of the total number of graduates from all modern distance education institutions in China, which indicates that CRTVUs have made a huge contribution in accelerating the process of mass higher education in China.

If we compare the CCRTVU system to other open universities we can identify a number of unique features. The most prominent is the size of the system. It is using the infrastructure of the Chinese Satellite Education Broadcasting system (CEBSat) and of the Chinese Education Research Network (CERNET). CRTVUs mainly use mass media

nd videoconferencing technologies. The latter, however, more for broadcasting lectures from RTVUs to regional centers rather than for exploiting two way communication capabilities. Given the 'talking heads' model one may expect rather modest development costs. Nevertheless, the drop out rate of the system is much lower than in most distance teaching universities elsewhere. Kember attributes this to the class based approach (as opposed to the individualized approach adopted by DE universities following the Britisch (OU) model (Kember, 2007, pp. 175-7).

Given the Chinese centralized approach CRTVU is unlikely to see the system vulnerable to market fragmentation as Rumble has argued is a challenge for Western distance teaching institutions. (Centralized approaches may confine competition and therefore limit innovation but they also allow full exploitation of scale economies and a certain protection against unscrupulous commercial providers.)

Question: Can you identify some differences between the COU and the Open Universities in the British tradition? Why is the drop-out rate in COU allegedly so comparatively low?

References:

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- Module 3 Unit 5: Case Study: The Indira Gandhi Open University

  Discussion Topic

This posting illustrate the usefulness of the tools of cost-analysis we have learned in the last module (total, average and marginal costs.) It shows also that IGNOU can massively capitalize on scale economies.

Note that: 1,000 Indian Rupee = 22.94 US Dollar (or about US $ 23).

Break down of costs at Indian universities

In the Campus based Universities in India, about 90 percent of the recurrent costs goes to staff salary, where as in the Indian Open Universities (OUs) the non-salary component hovers around 60-69 percent.

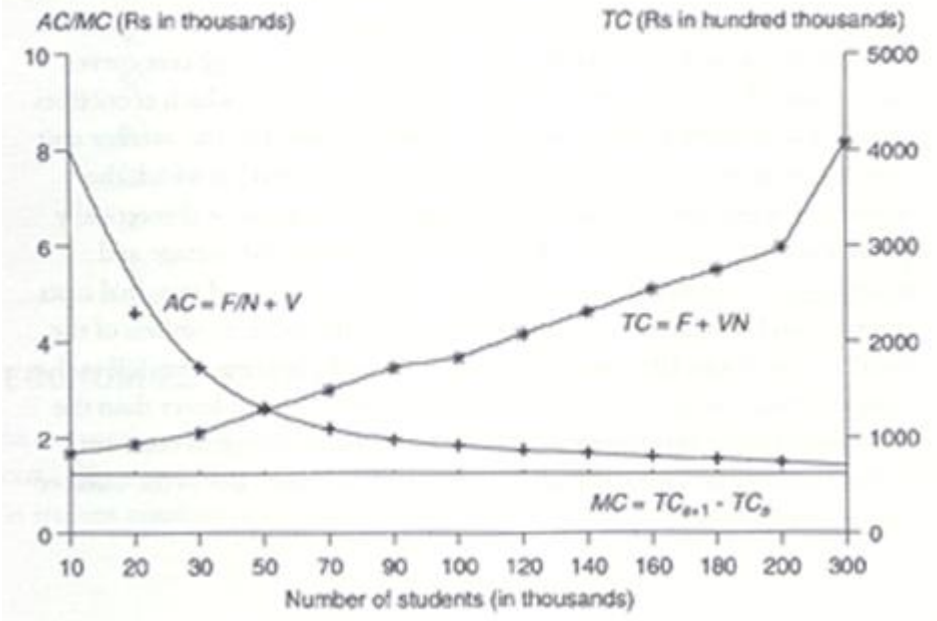
In the CBUs or OUs, the non-salary components include costs incurred on development, production and distribution of printed learning materials; production, duplication, distribution of audio and video programmes and their transmission; study centers including recurring counseling/tutorial sessions; monitoring of assignments, student registration and maintenance of records; examinations and other related costs. These costs are generally classified into three categories: course related, student related, and overheads. The print-video-audio proportion of costs for an 8-credit course in IGNOU (1 credit = 30 student study hours) is 66:33:4.

The percentage distribution of annual recurrent expenditure across the five broad components were as follows for the year 1991-92: development and maintenance of courses (9%), production of printed materials (31%), production of audio and video programs (about 3%), learner support services (about 25%), and institutional overheads (about 32%). In comparison to CBUs, the per student annual recurrent cost varied between 14-40 percent.

Average and total cost functions of IGNOU

The Dual Mode Universities and OUs had been reaping economy of scale, and reduced average and marginal costs. Figure 6.1 shows the behaviour of total, marginal, and average cost functions for IGNOU (Naidu, 1994). The AC curve dropping to a value below 2000 Rupees or US$ 46. This is a very low average cost. Total costs for 200 000 students mount to 300 000 000 Rupees (6,882,312 US Dollar or nearly 7 mio. US$)

Figure 6.1: The behaviour of total, average and marginal cost functions (1991/92).

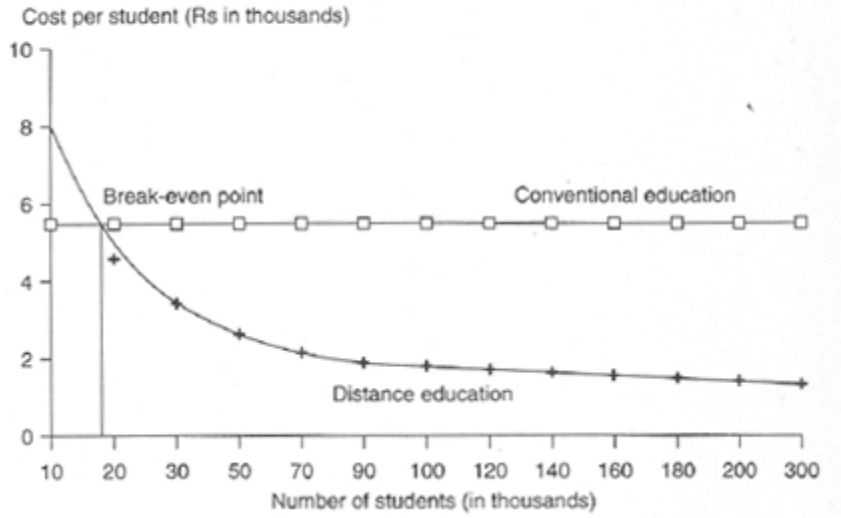


The average cost decreases with the increase in student enrollment. It can be seen that at about 140,000 student enrolment, the university is fully saturated to have achieved the benefit of economy of scale; any further increase in student enrollment flattens the average cost curve. Further, since the variable cost is still less than the average fixed cost, economy of scale is possible up to a student enrollment figure of about 200,000. It has been pointed out that for achieving internal cost efficiency, IGNOU needs to operate at the minimum possible average cost and still achieve its objectives.

Comparing average costs of IGNOU to average costs of conventional education in India

When the costs of campus based universities and open universities are compared, it may so happen that the latter may have higher average cost than the former if their student enrollment is at a low level. Therefore, it is important for the open universities to have sufficient student enrolment to break even. When the average costs of IGNOU was compared with that of campus based universities in India at different levels of enrolment (Figure 6.2), it was found that before the break even point with low enrolment campus based universities reaped lower average cost, and that only after the break even point the open universities were more cost effective than the campus based universities.

Figure 6.2: Comparative costs of conventional and distance education enrolment (1991/92).



It may also be pointed out that when detailed program-wise analysis of average costs is undertaken, one may find that in case of some programs (like certificate, diploma in some disciplines) the average cost may be higher than that of the programs of campus based universities because of high fixed cost and low student in case of distance education. Therefore, it is not surprising that in case of some campus based universities, the DE programs either are non-viable or that the DE departments lower the expenses and therefore the quality of instructional transaction to still try to break even.

Question: Can you find some similarities and differences between the COU and IGNOU?

Reference:
-- Naidu, C. G. (1994). Some economic aspects of conventional and distance education systems in India. In G. Dhanarajan et al (Eds.), *Economics of Distance Education: recent experience* (pp58-73). Hong Kong: Open Learning Institute Press.

- Module 3 Unit 6: Case Study: University of South Africa

  Discussion Topic

  ☐ I'm Done

Dear all,

Entering the Muckleneuk Campus of UNISA, means meeting Madiba, i.e. Nelson Mandela, the South African leader, who took South Africa out of the Apartheid era, which divided its people and isolated the nation for so long.

Obviously, racial discrimination pre-dates Apartheid, but it has never taken such an explicit and bureaucratic form. While legal issues have certainly improved since the end of Apartheid, racial segregation in many respects is still evident, especially in Pretoria. It is evident in the high security fencing of the rich Afrikaner dominated suburbs and the lack of sanitation in some of the traditionally black townships. At the university racial segregation is thankfully not visible at least for the newly recruited newcomer.

But back to the larger picture! UNISA certainly qualifies as a mega-university in the sense of John Daniel. The website reports enrollment levels of 400000 students from SA, Africa and other countries. Outside South Africa it has a large study center (opened in 2007) in Addis Ababa (Ethiopia). In spite of being only one of 21 universities in SA, UNISA accounts for close to 13% of the degrees conferred.

UNISA is arguably the oldest distance teaching university. It celebrated its 140th anniversary in 2013 since it was 1873 when the University of the Cape of Good Hope (UCGH) was established which later on developed into UNISA.

As a distance teaching university proper UNISA operates since 1959 when it started operating a correspondence model using study guides, cassette tapes and limited face-to-face tuition (as an aside: blended learning is not a recent intervention; it has been part and parcel of DE ever since its early beginnings).

In 1997 UNISA almost became a monopoly provider of DE in SA since the major other distance teaching institutions (most importantly the Technicon) were ordered to merge with UNISA.

Since recently UNISA is moving towards establishing itself as an online university. This led to liaise with UMUC, the biggest US online university, to train some of its staff. Since more than a year now UNISA sends key personnel to take MDE courses to experience what it means to be an online student and possibly get a hang of teaching online. (This incidentally brought me here since retiring last year at my university I was quite interested to do more than simply giving a workshop at UNISA: Together with UNISA staff we developed a research project which was approved by the university leadership. My initial reservations against taking a position which could be filled by younger African staff was dispersed by being told that the funding was ring fenced for international scholars being able to contribute to UNISA's international visibility; in

addition, I admit I felt flattered and was only too willing to come back to Southern Africa where I already taught for about a decade.)

Meanwhile UNISA developed its own Master in ODeL (Open Distance and e-Learning) which comprises the UMUC certificate courses plus some UNISA courses (mostly in education and curriculum development). The UMUC courses contribute credits to the UNISA Master in ODeL.

As compared to UMUC UNISA is more of a research university and more broadly based. It comprises seven colleges all teaching at a distance but also doing research:

1. College of Human Sciences (CHS)

2. College of Science Engineering & Technology (CSET)

3. College of Education (CEDU)

4. College of Law

5. College of Agriculture and Environmental Sciences (CAES)

6. College of Economics & Management Science (CEMS)

7. School of Business Leadership

The Institute of Open and Distance Learning (IODL) is not a support unit, neither for teaching at a distance, nor for technical support. It is seen as a research institute with the remit to support any research emerging from the different schools as far as it is related to ODL.

The Institute is well connected, nationally, continentally and internationally. It is central in UNISA's role of organizing the International Conference of Distance Education (ICDE) in Cape Town 2015, but it also plays a leading role as member of the ACDE (African Council of Distance Education) which tries to set up a major database documenting all the ODL activities in the continent. More regionally UNISA is member of DEASA (Distance Education Association of Southern Africa) where the Institute's director Dr. Makoe is among the 'executive members'. In addition there is NADEOSA (National Association of Distance Education of South Africa) where evidently UNISA plays a leading role.

One of the interesting questions for me is how UNISA's move to re-invent itself is accepted by its students. My hunch is that there is a dividing line right through its audience: there are many students who already invested in the online technologies (laptops, smartphones, flatrates) and want to harvest the fruits of their investment. This is likely the richer urban middle class. For many of the less endowed students the reception costs of online learning may price this type of studying out of their reach.

Interestingly, UNISA was told by the Ministry of Education not to grow further. This is a guideline difficult to stomach for the University in the Service of Humanity which had prided itself not to turn down any applicant. The reasons for this are not totally clear. It may be that it was felt that UNISA is stretching itself beyond the capacity. It may also have to do with the perspective that UNISA's monopoly as only distance teaching provider is falling.

The incident may show a major difference between UNISA and UMUC. UMUC does not see itself as a research university and is about 95% funded through tuition fees. UNISA is in terms of research more broadly based and does only to a minor degree depend on student fees (around 20% I was told).

Have a look at the various UNISA websites and please, feel free asking questions. I will answer if I can and may have to ask my colleagues interesting questions. As an appetizer look at:

- http://www.unisa.ac.za/140/index.php/2013/07/celebrating-africas-largest-university/
- http://www.unisa.ac.za/Default.asp?Cmd=ViewContent&ContentID=130

Kind regards,

Thomas

- Module 3 Unit 7: Introducing Greville Rumble

Discussion Topic

☐ I'm Done

Dear all,

I am happy welcoming Greville and opening his conference debate on Vulnerability of Distance Teaching Universities. Let me introduce him. Those who have read his biography already know that he is a global nomad, "born in Lima and schooled in Ecuador, Switzerland and England, he has now worked in over 50 countries and brings a multi-cultural and international experience to the field distance education, coupled with an interdisciplinary approach to the subject. In 1968 he graduated from the University of Kent in the United Kingdom, with a Bachelor's honours degree in History. In 1970 he was awarded a Master's degree from the same University following a one year research studentship during which he studied de facto theories of government in seventeenth century England (following which he edited a new edition of Anthony Ascham's Of the confusions and revolutions of governments (1649), New York. Scholars' Facsimiles and Reprints). He gained his PhD (on the costs and economics of open and distance learning) from the UK Open University in 1998. More recently he has been taking distance-taught

courses mostly in art history to gain a second Bachelor's degree with honours from the Open University.

His professional life in open and distance education began in 1970 when he took up an administrative post at the newly created British Open University. Between then and 2001, when he left the Open University, he occupied a range of positions. He was twice, first in the mid-1970s, and then in the late-1980s, head of the Open University's corporate planning office. During the 1990s he was for a total of eight years director at two of the University's regional office, with responsibility for providing services to students. In 1999 he was appointed to a personal chair as Professor of Distance Education Management at the Open University. In addition he was editor of the journal Open Learning (1998-2002), upon whose editorial board he continues to serve; and he has in the past been on the editorial boards of Distance Education and the Revista Iberoamericana de Educación Superior a Distancia.

He has written extensively on distance education. Some of his papers on the costs and economics of distance education are collected together in Rumble, G. (Ed.). (2004). *Papers and debates on the costs and economics of distance education and online learning* (Vol. 7). Oldenburg: bis. His book, *The costs and economics of open and distance education* (1997) is a core text for this course. A small succinct management guide was published by the IIEP: *The management of distance education* (Paris, UNESCO: International Institute for Educational Planning, 1992). He has twice brought together papers on technical and vocational education at a distance, first with João Oliveira in *Vocational education at a distance* (London, Kogan Page, 1992), and then with Louise Moran in *Vocational Training through Distance Education: A Policy Perspective* (Vol. 5). London, New York: Routledge (2003). Earlier edited works include, with Keith Harry, *The distance teaching universities* (London, Croom Helm, 1982), and with Tony Kaye, *Distance teaching for higher and adult education* (London, Croom Helm, 1981). He also wrote a book *The politics of nuclear defence* (Cambridge, Polity Press, 1985) which was translated into Spanish by the Spanish army as *La política de defensa nuclear: una introducción extensa*, Madrid, Colección Ediciones Ejército, Servicio de Publicaciones del Estado Mayor del Ejército, 1987). Books in Spanish included an evaluation of the Costa Rican Universidad Estatal a Distancia (1987) and

with João Oliveira an edited book of case studies on Latin American distance education (1992).

Over the years Greville has worked extensively outside the United Kingdom. In the late 1970s he worked extensively at the Universidad Nacional Abierta in Venezuela, and at the Universidad Estatal a Distancia in Costa Rica where, in 1980-81, he was an advisor in the Planning Vicerectorate, having taken leave of absence from the Open University. He was awarded an honorary doctorate from UNED in 2009. In the early 1990s he undertook extended consultancies at the Indira Gandhi National Open University, working on the curriculum transformation of IGNOU, and in the mid-1990s he was Chief Technical Advisor at the Bangladesh Open University. Most recently he has been working in Africa. His 2007 study on the costs of open schooling in India and Namibia undertaken with Badri N Koul (Greville Rumble and Badri N Koul, Open schooling for secondary and higher secondary education. Costs and effectiveness in India and Namibia, Vancouver, Commonwealth of Learning, 2007 is available at http://www.col.org/colweb/site/pid/4974). Other recent work included the development of a national policy and strategic framework for distance and flexible learning on behalf of the Government of the Solomon Islands, a blueprint for a Kenyan Open University, and work on a teacher education project in Malawi.

- Module 3 Unit 8: Questions on the textbook

  Discussion Topic

  I'm Done

  This main topic allows you posting questions with respect to the main textbook "The costs & economics of open & distance learning". As an independent learner, I assume you made some notes when reading the required chapters and are likely to have come across a number of questions and comments. Please, post them as responses to this main topic.

  I have been asked (quite frequently indeed) why I stick to this textbook since it is published when the use of the Internet was only beginning to make its mark in distance education (it was published in 1997). In fact, there is no explicit discussion on online or Internet-based learning in the book. As explanation let me cite Alstair Inglis:

  The past ten years have seen a massive shift towards online learning - not just in institutions involved in distance education, but also in institutions involved in mainstream education. While the shift has been afforded by advances in information and communication technology (ICT), what seems more than anything to have been responsible for the shift has been the belief on the part of senior management that moving to online learning offered a way of reducing costs. It is now realized that this belief was misplaced ...
  What led to the misconception that moving from face-to-face to online delivery would

save costs was a failure to understand the economics of distance education. ... (Inglis, 2008, p. 132)

This applies a fortiori for the case of moving from traditional mass-media based distance education to online learning. In all cases a thorough understanding of traditional distance education and its cost-structure is the best preparation for a good understanding of new formats of distance education. This is why we spend a good deal of time to prepare the backdrop against which changes and shifts in the cost-structure due to new approaches in distance education and e-learning are much clearer visible.

The key concepts in the book are efficiency and effectiveness (quality). Efficiency is central for reducing costs. Costs can be reduced essentially by two strategies: *capital for labor substitution* and *labor for labor substitution* (the latter means in its expanded version: the substitution of more costly by cheaper labor; it may include more than salaries; employment conditions play a central role). While labor for labor substitution may easily lead to unpleasant and simmering conflicts capital for labor substitution seems more acceptable. The strategy is widespread in all manufacturing industries: introduce machinery and rational production processes and you will be able to bring down unit costs. (e.g. cf. Rumble, 2004/1994, p. 56)

I first read Otto Peters theory *on distance education as most industrialized forms of education* more or less in tandem with Rumble's economic analysis. Being a person who likes concepts being illustrated by figures and graphs I considered the AC graph as a fitting translation of the 'industrialization formula'. (However, I also noticed differences between Rumble and Peters. Greville views the 'sui generis' clause, Peters' second major finding, rather skeptically: He sees it as encouraging a 'laager mentality' separating the distance educators as a form of avant-garde from other educators (cf. Rumble, 2004, p. 113).) A thorough understanding on the cost structure of traditional distance education is therefore in my judgment a MUST for all distance education managers. Hence, read the chapters and take the opportunity of this conference to ask questions and find out how instructional strategies, system requirements and cost structures relate to each other.

Kind regards
Thomas
PS: The papers with an asterisk you find attached.

References:

-- ****Inglis, A. (2008). Costs and quality of online learning. In W. J. Bramble, Panda, S. (Ed.), *Economics of distance and online learning* (pp. 132-161). London: Kogan Page.
-- Rumble, G. (2004). The effect of employment practices on the costs of flexible and distance learning (1994). In G. Rumble (Ed.), *Papers and debates on the costs and economics of distance education and online learning* (pp. 53-66). Oldenburg: Bibliotheks- und Informationssystem der Carl von Ossietzky Universität Oldenburg.
-- Rumble, G. (2004). The competitive vulnerability of distance teaching universities: an addendum to the debate. In G. Rumble (Ed.), *Papers and debates on the costs and economics of distance education and online learning* (Vol. 7, pp. 107 - 117). Oldenburg:

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-- ****Hülsmann, T. (2008). Peters, Holmberg, Moore - a personal configuration. *Distances et Savoirs, 6*(3), 455-479.

- Module 3 Unit 10: Social justice and DE

  Discussion Topic

  I'm Done

  Dear Greville and all,

  in the first module I already have suggested that you to read Greville's paper on 'Social justice, economics and distance education'. (I add the response by Troy Cooper and Greville's response to her.) Here you have the opportunity to discuss the issue with the author himself. I specifically would invite those having analyzed Greville's paper as their first essay task to come forward and launch their challenges.

  The criticism came from two angles. One was rather pragmatic. Demanding more for education would increase the deficit even more and damage the economy. Good intention, bad prescription.

  The other was more based on libertarian principles. Now, libertarianism is a quite unique American philosophy often in Europe too easily associated with neo-liberal or neo-conservative agenda. Trying to learn more about libertarianism I saw a chapter in Sandel (2009) on libertarianism. Sandel characterizes libertarianism as follows:

  1. No paternalism

  2. No moral legislation

  3. No redistribution of wealth

  That libertarianism is not in line with neo-conservative thinking and a moral majority is clear from points 1 and 2. It would in principle object to imposing rules as driving motor bikes without helmets or selling drugs to adults etc. The person only has to live with the consequence of his/her actions. Don't expect the taxpayer picking up the bill. (Rather curiously Sandel's discussion of the libertarian stance culminates in the question 'do we own ourselves?' It leads to questions such as 'are we allowed selling one of our kidneys (or possibly both)? It ends up with the weird case in the German town of Rotenburg where we had a case of 'cannibalism by consent': In 2001 a 43 year old software engineer was eaten by a 42 year old computer technician. The former has responded on an internet ad by the latter seeking someone to be killed and eaten. The German judges had a problem since there was no law against cannibalism. No paternalism; no moral legislation! This certainly distances libertarians from neo-conservatives.)

Relevant for discussing the paper are the above points 1 and 3. Some argued, slightly sidelining your asymmetry between rescuing people from bad lives rather than imposing your view of what is a good life, that your view is paternalistic and one should leave it to the individuals if they want to invest in education or not. I think at this point there is no real disagreement since in fact arguing for free education for you is a way of placing some choices in reach of the disadvantaged they have usually no access to. (Here in general the argument was that in the US a system was in place that allowed most people borrowing money for college. Hence such an arrangement in place there is no need for redistributive taxation. The problem could be solved by those who want taking a credit for education. Good salaries later could be considered as returns on this risky investment.)

The real bone of contention was the use of redistributive taxation funding free HE. Since there is little positive specification up to which extent you would want to have free education and to which geographical boundaries you want to extent it, it invited a sort of 'reductio ad absurdum': according to Rumble, it was argued, a cradle to grave taxpayer-paid lifelong learning (HE included) for US or UK citizens is not enough, the author even wants to extend the morality of humanity (to rescue people from bad lives) to the developing world. That this would be a bottomless hole that would drain the resources of the nation was to be taken as obvious. In addition the issue was raised that investing in education possibly comes with the opportunity costs of saving on other issues such as health or public security. Altogether the verdict was: well-intentioned but with disastrous consequences.

Since M. Friedman was cited I came across an alternative libertarian way of financing HE. Friedman allegedly toyed with the following idea: "Milton Friedman, …, wrote 1962 in Capitalism & Freedom that it would be an amusing idea to invest in the qualification of talented people. Investors could advance a loan for the education of moneyless but talented young people and in turn receive part of the wage increments due to this educational investment." (Knobloch, 2012, p. 137; translation TH)

We discussed earlier on (in relation with Schultz paper on 'investing in human capital') if the concept of human capital is not too akin to slavery. "Friedman was honest enough to refer to this idea as 'partial slavery' and cynical enough to see it as an irrational restriction to market principles disallowing for the time being this sort of stock market trade." (Knobloch, 2012, p. 137; translation TH)

The rejection of wealth redistribution by libertarians is, however, based on the assumption that the wealth is legally acquired and as such a product of your own effort. Here libertarians would run into problems. Already Honoré Balzac already quipped that behind any big wealth lies a big crime. Revisiting how for instance privatizing public assets in the formerly socialist economies discredits any merit-based interpretation. The dramatically rising inequalities around the world belie any such interpretation (Wealth Inequality in America, 2012). The Oxfam Report (2014) notes that (i) Almost half of the world's wealth is now owned by just one percent of the population; (ii) The wealth of the one percent richest people in the world amounts to $110 trillion. That's 65 times the total

wealth of the bottom half of the world's population; (iii) The bottom half of the world's population owns the same as the richest 85 people in the world; (iv) The richest one percent increased their share of income in 24 out of 26 countries for which we have data between 1980 and 2012.

The erosion of popular believes that wealth is merit based is also noted: "When wealth captures government policymaking, the rules bend to favor the rich, often to the detriment of everyone else." (p.2) As a consequence people get frustrated: "Oxfam's polling from across the world captures the belief of many that laws and regulations are now designed to benefit the rich. A survey in six countries (Spain, Brazil, India, South Africa, the UK and the US) showed that a majority of people believe that laws are skewed in favor of the rich – in Spain eight out of 10 people agreed with this statement. " With respect to the US the report states:

POST-WAR AMERICA

Writing in in 1952, Frederick Lewis Allen appraised the US's experience of the first half of the 20th century with the following words:

'At the turn of the century America seemed in danger of becoming a land in which the millionaires had more and more and the rest had less and less, and where a few financiers had a stranglehold, not only on the country's economic apparatus, but on its political apparatus, too. '...Through a combination of... revisions of the systems – tax laws, minimum wage laws, subsidies and guarantees and regulations of various sorts... we repealed the Iron Law of Wages. We had brought about virtual automatic redistribution of income from the well-to-do to the less well-to-do... that, it seems to me, is the essence of the Great American Discovery.'

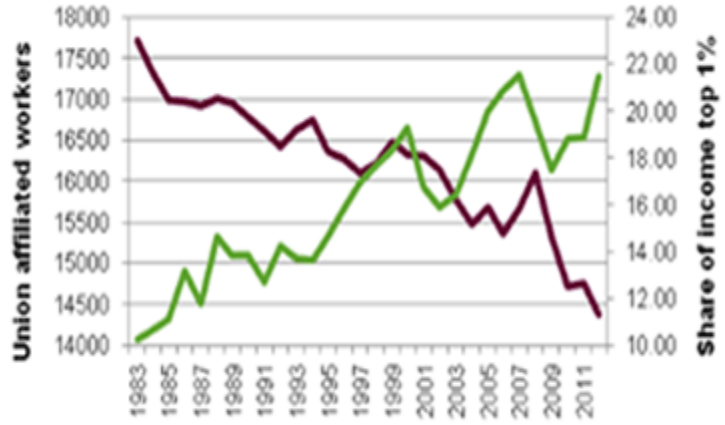
In a film released in 2013, called 'Inequality For All' former US Labor Secretary Robert Reich responds to a question about which country the US economy should emulate, given its high level of inequality (400 of the richest Americans have more wealth than the 150 million citizens who comprise the poorest half of the population). His surprising answer is: the US of some decades ago. Reich then points to the three decades of strong growth and diminishing inequality after World War II.

During this time, the US created the largest middle class the world has ever seen. Reich calls this era 'the Great Prosperity'. It was made possible through a tacit agreement reflecting the interdependence between labor, big business, and the federal government, known as the Treaty of Detroit. Owing to the economic power of middle-class consumers, big business recognized the utility of paying good wages, with cost-of-living increases (as well as health insurance and pensions, which had been primarily management perks until the 1950s). Importantly, big business agreed to productivity-based wage increases too, aligning the interests of labor and management together to ensure rising productivity and growing profits.

The government's role was to maintain the balance between labor and big business. For instance, fearing that a tax cut on investment and income would spur inflation, President John F. Kennedy's Council of Economic Advisers printed 'guideposts' to link wages and prices, which unions and big corporations largely adhered to. Walter Heller, the Chairman of Kennedy's Council of Economic Advisers, reflected with satisfaction years later that industry came to realize that linking wages to productivity increases still brought significant rewards for capital, as corporate after-tax profits doubled between 1961 and 1966.

The era of 'Great Prosperity' fostered by the Treaty of Detroit came to an end as big business increasingly concentrated its economic power to lobby policy makers in Washington DC throughout the 1970s and 1980s, eventually edging out labor, and fighting otherwise popular policies impacting working families, like increasing the minimum wage. As laws making it more difficult for unions to organize increased, average wages stagnated, auguring in the trend of rising inequality that has been evident for the past 30 years.65

Figure 7: Declining union rates and the rising 1% income shares in the US



Sources: Bureau of Labor Statistics (2013) 'Union affiliation data from the Current Population'; Saez & Piketty (2003) 'Income Inequality in the United States, 1913–1998', *Quarterly Journal of Economics*, 118(1), 1–39 (Tables and Figures Updated to 2012, September 2013).

Hence the extreme inequity of wealth made many people questioning the justification of the processes by which wealth is accumulated. But if we look at the big income in the developing world, the privatization process in the former USSR leading to massive forms of 'accumulation by dispossession', or the redistribution of income (in favor of the richer percentiles) during the sub-prime crisis , all that challenges the Lockean view on which the libertarian argument is based: That we merit what we own because it is the fruit of our labor.

The above figure nicely illustrates how wealth is not simply a result of personal effort but of social power relations.

Kind regards
Thomas

Reference:

-- Cooper, T. (2007, June). Response to Greville Rumble. *Open Learning, 22*(2), 1777-1182.
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- Module 3 Unit 11: The 'vulnerability debate' revisited

  Discussion Topic

  I'm Done

  Dear class members,

  The reason why I consider the vulnerability debate as still relevant is threefold:

  (i) It brings together the technical aspects of scale economies and institutional features. In the previous module we discussed efficiency and cost-effectiveness and looked at specific institutions. The module illustrated the relationship between the traditional DE and scale economies: [DTU <=> scale economies]. The debate illustrates the same thing by demonstrating that market fragmentation (eroding scale economies) is a threat to DTUs.
  Reading recommendations: Read quite closely Greville's original paper and the addendum; skim through the responses and comments by Keegan, White, and Mugridge.
  Looking from the UNISA vantage point suggests revisiting the scale economies argument: You may have a big overall enrollment but if you offer a proliferation of courses you sort of 'cannibalize' your economies of scale. This begs the question if scale economies basically play a role with respect to IT services, library services and admin but not much on the course level.
  Moreover, while the graph of the average cost function shows impressive drops in the beginning, it shows also how scale economies peter out quite quickly. This also may put into perspective any exaggerated emphasis on scale economies.

  (ii) What if we price the effect of the Internet (and the Internet based technologies) in our re-visiting the debate? We realize that meanwhile almost all HE institutions have the technical capabilities to teach at a distance. This new ubiquity of the digital technologies must have an amplifying effect on the vulnerability of DTUs by fragmenting the market further to an extent probably not foreseen at the time of writing the paper.
  On the other side there may be a contradictory effect: That the new technologies expand the market by brining into reach flexible HE to large new groups of learners!
  Hence if we revisit the 'vulnerability debate' from today's vantage point, is not the fear of market fragmentation exaggerated by an ever expanding demand for HE?
  Taking again the UNISA vantage point it seems indeed that UNISA loses its traditional monopoly in DE in SA but at least the ministry of education does not show fears that UNISA would suffer from market fragmentation. Indeed, the ministry is imposing a 'no growth strategy' on the institution to see that it not enrolls students beyond capacity.
  No specific reading (just thinking ;->)

  (iii) The Internet does not only increase market fragmentation. It also fragments instructional approaches in distance teaching. While pre-Internet / mass-media based distance education was 'sui generis' and characterized by a largely homogeneous

instructional approach this does now change. Is 'online learning' a disruptive technology or, as Curran believes, rather adaptable to all sorts of institutional arrangements?
Read Rumble (2004/2001, p.165) and compare to Hülsmann (2004, p. 244) Read also Curran (2008, p. 46)

Kind regards
Thomas

References:

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- Module 3 Unit 12: Taming the horses: Digital correspondence

  Discussion Topic

  ☐ I'm Done

  Dear Greville and all,

  My theoretical initiation in DE was based on Peters and Rumble. For me Rumble presented in a more succinct mathematical language what Peters put in his more reflective language of a sociologist (cf. Hülsmann, 2008). At the time of my 'initiation in DE' the field was dominated by the perception of Fordist and mass-media based DE as exemplified by the often large open universities.

  My initiation as online teacher, as part of the team launching the MDE, encountered a world very different from theoretical initiation. Digital technologies for the first time afforded what I later called 'responsive interaction at a distance'. Reading Rumble helped again:

  "A number of case studies comparing the costs of online learning are beginning to emerge. This section attempts to

summarise the information we now have. In approaching the issue it is worth bearing in mind that what constitutes an 'online' system varies enormously. Typologies have their dangers, but they can also be useful in sorting out one's thinking - and the following typology is offered with this in mind:

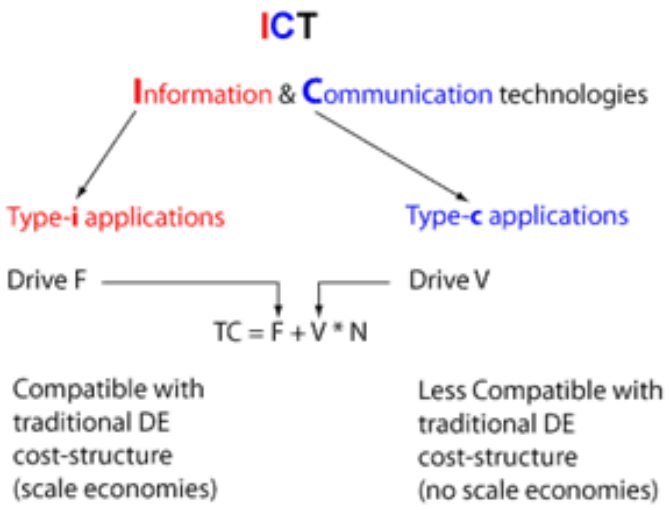
a) Type A online systems offer Computer-Based Learning (CBL) involving textual, audio, and video course materials in electronic format. No student support is involved.

b) Type B online systems offer Computer Mediated Communications (CMC) supporting tutor-student and student-student interaction. This support may be offered in synchronous mode (Type B1) or asynchronous mode (Type B2).

c) Type A/B systems combining both CBT and CMC." (p.165)

Rumble, G. (2004). The costs of providing student support services (2001). In G. Rumble (Ed.), *Papers and debates on the costs and economics of distance education and online learning* (Vol. 7, pp. 163-174). Oldenburg: Bibliotheks- und Informationssystem der Carl von Ossietzky Universität Oldenburg.

I based my distinction between type-i and type-c approaches on this distinction. (Essentially I found A and B rather uninformative labels and wanted to make use of an important distinction expressed in the acronym ICT (information and communication technologies) to generate more telling labels. While information technologies are related to programming, data retrieval, automation and the like (all technologies taking people out of the loop) communication technologies sustain a communication bridge between people. This has, as we will see, important consequences for the cost structure of DE.)



In a way I tended to see the new interactive capabilities of digital technologies as disruptive. Using a British expression (possibly expressing the annoyance of farmers when the fox hunting lords rode through their fields) I used to say that responsive interaction at a distance seemed to drive horses (or horses and carriages) through the claim of DE's scale economies – based claim for cost-effectiveness. It seemed that Learning Management Systems (LMS) (or as the British say Virtual Learning Environments (VLEs)) are disruptive technologies and waited several years to hear a 'bang'. No ''bang' happened. Instead, I learned from Curran (2008) about the 'malleability of online learning' as a reason of the spreading popularity of it in HE.

I seemed that had to revisit my conceptualization of the distinctive difference between online DE and conventional HE. Traditionally we argued that the fixed costs (F) in DE are high and the variable costs per student (V) are comparatively low. Both assumptions

may require modification: First of all, for purposes of comparing conventional education and DE the costs of technology is basically the same. All HE institutions have their servers and LMSs in place and do have considerable capabilities for teaching at a distance. Second, the course development costs did drop considerably with teachware enabling teachers without assistance of specialized designers to develop there courses. This has reduced the media sophistication of early online courses but with staff getting the hang of it media sophistication comes back at lower costs. Third, and this is my most important thesis to explain the absence of any 'bang', online DE has adopted a model which I call 'digital correspondence': To put it polemically, most institutions do not fully exploit the capabilities digital technologies afford in terms of 'responsive interaction at a distance'; they use these technologies in a 'procrustean' manner to fit their traditional cost structure.

This tames the horses or takes the disruptive sting out of online teaching. While not exploiting technological capabilities to the full sounds negative but may be an option to consider. Earlier distance educators have questions the interactivity fetish (e.g. Thalheimer, 2002; Ainsworth, 2000), while at the same time digital technologies also enhance the quality of student content interaction to a level Boerje Holmberg would have not dreamt possible.

I coined the term of 'digital correspondence courses' in my review of Depover & Orivel (2012) (Hülsmann, 2014). It explains for me the absence of the 'bang'.

Kind regards
Thomas

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- Module 3 Unit 13: MOOCs: Scale economies reloaded or a new method for cooling out aspirations?

  Discussion Topic

  I'm Done

  Dear Greville and all,

  After having quarreled about the extent to which redistributive taxation should or could be used to make education available for all, it comes to a surprise that now even specialized HE from top ranking universities is offered at no costs. Several institutions now offer so called Massive Open Online Courses (MOOCs) for free. How is that possible?

  There are some precursors to this development. In earlier discussions on web 2.0 I coined, somewhat tongue in cheek, the three temptations of web 2.0:

Temptation 1: "It is all there (on the web)": no course development needed.
Temptation 2: Harnessing 'wisdom of the masses' (of peer interaction) no tutors are needed.
Temptation 3: Web 2.0 providers offer technological infrastructure at no cost which renders institutional infrastructure redundant.

  But putting it more seriously: what slowly sinks in is that with respect to information 'we can have the cake and eat it'. In this sense information is a public good which in some sense does not follow the logic of scarcity on which general economic thinking is predicated on.

  This led first to the Open Education Resources (OER) movement and later to MOOCs. In terms of cost structure MOOCs can be offered for free if teacher costs are eliminated by either reducing interaction to student-content interaction (automated generated and marked quizzes) or fending off expensive student teacher interaction by transforming it, in an act of crowd sourcing, into peer interaction (hoping for 'the wisdom of the

masses'). The first option is generally used in xMOOCs, while the second option is the favorite solution of cMOOCs.

In spite of all these good news the 'dismal science' (i.e. economics) insists that there are' no free lunches' and asks questions about the 'business model' of MOOCs.

My comments: The argument that there are 'no free lunches' needs to be challenged. Economics itself distinguishes between private goods and public goods. What we are experience at the moment is that interested parties, by means of new ingenious technical or legal arrangements, try to convert such public goods (which are by nature non-exhaustible, such that you 'can have your cake and eat it': or better share your cake with all others and have it yourself) into private goods which can be exploited because of the usual logic of scarcity: A "public good is a good that, once produced, is undiminished by being used by one or more users, and it is available to all. This means that, by definition, the marginal cost of supplying the public good to the next user is zero." (Hallgren & Adams, 1997, p. 460)

Having said this, I would argue that the costs of launching MOOCs are substantial. xMOOC, often offered by ivy league institutions, say that development costs can be treated as 'sunk costs', since generally courses are offered as MOOCs which are already taught such that there is no new development necessary. This is an understatement. There are still substantial costs in translating a f2f course in a good MOOC as we know from DE. The incentive to offer MOOCs is partly due to allowing the institution to market itself as being 'in the service of humanity' (while accepting substantial sums from foundations like Gates, Hewlett-Packard or Soros). Additional arrangements of partial recognition of MOOCs badgets as HE credits fuel the expectation that MOOCs may increase enrollments.

Depover & Orivel wrote their paper whose central thesis tried to prove the declining relevance of scale economies before the 'advent of the MOOCs'. Can we consider MOOCs as 'scale economies reloaded'? I wrote: "From the vantage point of a distance educator MOOCs seem to be a resurrection of traditional distance education under the condition of the digital era. It seemed to deliver the Daniel dream of breaking free of the iron triangle and making accessible elite education for all at zero costs. It did so by applying the same instructional design strategies of shifting the locus of teaching to course presentation and away from student teacher interaction. The affordance of digital technologies however allowed more sophisticated levels of student-content interaction and added peer interaction as an additional feature." (Hülsmann, 2013, unpublished conference paper)

There is an additional hunch I have with respect to MOOCs which follows a suspicion Klees has earlier expressed with respect to DE:

"Distance education systems, from a political economy perspective have thus usually been seen as giving a second class, inferior education to those allowed into education last, namely those who are hardest to reach and frequently the most disadvantaged.To add

insult to injury, cost-recovery efforts have usually been higher in distance education system, so disadvantaged students have ended up paying more for their education than those in conventional schools. (Oliveira 1988, Nettelton 1991). Moreover, the independent nature of distance education lets fewer students through the education pipeline. Those who do not get through are often "cooled out" from higher expectation and society is absolved of blame for not having given them a fair chance. Indeed, more broadly, distance education systems have been seen to help maintain the stability of unfair societies by legitimating what is only a pretense of equal opportunity. More directly, especially for authoritarian systems, stability can be enhanced because, with distance education, students do not congregate and are therefore less likely to be a political force." (Klees, 1995, p. 403)

According to Perraton:
"The contest is between two views. We can interpret the growth of open and distance learning as something that has provided education to thousands, even millions, for whom it would not otherwise have been available. Many have been disappointed by what was on offer. But others have benefited and we can interpret this widening of education as a move towards equity.
The alternative view is harsher. Open and distance learning is regarded, by students and ministries of education alike, as a second-rate system, used to offer a shadow of education while withholding its substance. It is an inefficient but cheap way of containing educational demand without meeting it. Through its existence it helps insulate the elite system from pressures that might otherwise threaten its status or its way of working." (Perraton, 2007, p. 207)

Could we observe a similar 'cooling out effect' with respect to MOOCs? One of the main purposes according to the French sociologist Bourdieu is to render the class hierarchy as legitimate by being based on merit. The ongoing commercialization especially of HE and setting up education as a for profit sector in its own right tends to exclude many learners by increasing price barriers. Is MOOCs the convenient device for saying that "it is an inefficient but cheap way of containing educational demand without meeting it. Through its existence it helps insulate the elite system from pressures that might otherwise threaten its status or its way of working"?

Kind regards
Thomas

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