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Open Universities: Applying Old Concepts to Contemporary Challenges

Sir John Daniel
Former Vice-Chancellor, UK Open University (1990-2001)

Abstract

We draw on Prasad's (2018) analysis of the disconnect between the social purposes proclaimed by open universities and their fulfilment to set the context. The next section revisits the simple concept of the 'Iron Triangle' of access, cost and quality in the light of recent developments. Similarly, we then re-examine the distinction between independent and interactive learning activities from the perspective of their economic and organisational implications. A final section of the paper reports on a 2017 discussion between executive heads of these institutions about the future development of open universities in different parts of the world.

Introduction

Open universities were the most significant innovation in higher education in the last three decades of the 20th century. By operating at scale with low costs, raising the quality of teaching materials and introducing contemporary technologies into higher learning, they promised to transform higher education generally. In the event, this wider mutation occurred rather slowly. It was not until the second decade of the 21st century, as the Internet became all-pervasive, that most campus universities began to take distance learning technologies seriously.

By this time some 50 open universities had been created around the world, some of them as recently as the early 21st century. The present fortunes of all open universities inevitably reflect the variety of economic and political environments in the jurisdictions where they are situated, as well as the massive changes that have taken place in higher education generally in the last half-century. Some open universities have forged ahead, others have struggled to get off the ground, while yet others have encountered serious difficulties after decades of successful operation.

This paper presents a personal perspective on the different trajectories that the various open universities have followed. It does so in a general way since, with few exceptions, I did not think it appropriate to reference individual institutions – not least because their situations can change rather quickly and any comments could quickly date. The article draws on two concepts that I developed during my many years as a scholar-practitioner in open and distance learning. The first is the 'iron triangle' (Daniel, 2010). This holds that distance education – and technology-based learning generally – have the potential to break away from constraints that classroom education faces in trying to create a balance between access, quality and cost. The extent to which an open university exploits this potential determines its ability to expand student numbers, cut costs and develop a reputation for quality.

The second concept presents the challenge of teaching at a distance as the achievement of a cost-effective balance between independent study and interaction with other human beings (Daniel, 1979). This is an important practical consequence of the constraints of the iron

triangle. It is usually cheaper – certainly if an open university operates at scale – to prepare and offer materials for independent study than it is to provide extensive personal support and tutoring. However, the evidence shows that most students need some human contact in order to succeed. Providing such human contact is more expensive – and more difficult to scale up – than distributing materials for independent study, especially if those materials are distributed electronically.

Before applying these concepts to the development of open universities we shall first explore Prasad's useful distinction between the *dharma* (social purposes) and the *karma* (actual practice) of distance learning and his analysis of its reality in India (Prasad, 2018, p.6). I conclude the article by recalling some of the conclusions of a Roundtable of open university vice-chancellors that took place in the margins of the World Conference on Online Learning - ICDE in October 2017 (Daniel & Tait, 2017).

Dharma and *Karma* of Distance Learning

In his recent book on open and distance learning (ODL) in higher education in India, Prasad (2018, p.6) uses the Sanskrit words *dharma* and *karma* to distinguish between the 'principles that guide us to do the right things' (*dharma*) and present practices (*karma*). The two words are used in the secular sense of right conduct and actual practice. An important theme of his book is the disconnect that he perceives between *dharma* and *karma* in ODL in India and how it might be repaired. Similar disconnects can be observed in open universities in other parts of the world.

For Prasad, the essential elements of the *dharma* of ODL include:

- *An instrument for the democratisation of education.*
  This means opening access to all and allowing learners to manage their own learning. For example, open admission policies are based on the assumption that it is the exit standards, not the entry standards, that matter.
- *A means for social justice.*
  Distance education can offer opportunities to poor people and include geographies that would otherwise be excluded. It is a more inclusive form of education, notably for women for whom independent movement (e.g. to attend campus classes) is less possible.
- *A means for development.*
  'Learning for Development' is the mission of the Commonwealth of Learning. ODL is used extensively in many countries for capacity building and the development of the skills and professional competence of the working population.
- *Mediating education with technology*.
  Although ODL systems are at different stages in their use of newer media, they are being revolutionised by interactive technologies in general and open educational resources in particular.
- *Quality as an imperative.*
  Quality is essential for achieving other elements of *dharma* in distance education. The

quality of learning materials, student support services, student evaluation and administrative services are critical to system effectiveness and to ensuring legitimacy and credibility in a competitive environment. The visibility of ODL systems makes their quality more amenable to public scrutiny.

- *The teacher as a facilitator.*
  The focus of teaching in ODL is facilitative rather than expositional. This makes the identity of academics in these systems more complex and inclusive, because there is often division of labour between the teaching functions of materials preparation and student support in particular.

- *The institution teaches*.
  In conventional education teacher teaches, whereas in distance education the institution teaches. Good logistics along with good learning materials and good student support services are important requirements for a successful ODL system.

Prasad addresses the *karma* of distance education in the context of India, which he describes as "one system, many models". Since the same description applies to the global network of open universities, the trends that he observes in India have wider relevance. These trends include:

- *Large student numbers.*
  The capacity to expand enrolments at low marginal cost is an important feature of distance education. China, as well as India, has distance teaching institutions with over one million students and students number in the hundreds of thousands in open universities in various countries. An important question is how large can such systems grow before they become so difficult to manage that quality suffers.

- *Diversity of programmes.*
  Almost any subject that is taught by conventional universities can be found in an open university somewhere. While subjects with a significant practical component require special arrangements, these can be designed and implemented to high quality standards. The scepticism of professional associations about distance education is gradually falling away because its flexibility is enabling institutions to offer skills development and professional development programmes in many areas to meet the needs of markets and employers. Short-duration specialised ODL programmes to meet the needs of particular employment categories are becoming very popular.

- *Involvement of the private sector*.
  Major players in industry are using ODL for developing human resources, particularly in professional and vocational fields, while numerous private providers offer education and training programmes at a distance.

- *The profit motive.*
  Because of their capacity to add enrolments at low marginal cost, ODL systems that charge tuition fees can generate significant surpluses once the break-even threshold is reached. Hence, distance education in both private and public sectors suffers from the

temptation to skimp on learning materials, support services, evaluation systems and administrative arrangements in order to maximise profits.

- *Use of technology.*
  There is huge variety in the use of technology in ODL systems. Open universities in developing countries often apply technology in sophisticated ways to their admissions and administrative systems before they attempt to use it in the teaching function. One danger, related to the temptation to maximise profits, is to use technology to replace as many human interventions in the teaching process as possible, with likely loss of quality.

- *Quality and regulation.*
  Prasad's comments on quality assurance and regulation apply specifically to India. Practice in these two areas varies greatly around the world, but most open universities are subject to quality assurance regimes that are similar to those for conventional universities. The regulation of distance education varies widely by jurisdiction, from highly restrictive to very lax.

The disconnect between *Dharma* and *Karma* in distance education – how to address it

Prasad's analysis of the disconnect between *dharma* (principle) and *karma* (practice) in India – and how to mitigate it – also has broader relevance to open universities around the world. We particularly note the following:

- *Distortion of the goals of open and distance learning.*
  As we implied above, the tendency to chase the surpluses that distance education at scale readily generates can easily compromise the social goals of these systems. This is true in both the public and private sectors. Although dual-mode universities that teach both on campus and at a distance are particularly prone to use the surpluses issuing from their distance programmes to subsidise campus operations, open universities are not immune from the temptation to invest these 'profits' in areas of doubtful direct benefit to students, notably disciplinary research.
  Prasad comments: "This amounts to gross violation of academic norms. The money making orientations in most of the cases result in compromise with quality. It is distressing to observe the attitude of some dual-mode universities which accept ODL students, but exhibit no sense of ownership or pride in them. Their usefulness is measured in terms of surplus generation. It is sickening to listen to some vice-chancellors boasting of their achievements in terms of surpluses generated through distance mode." He adds: "publicly identified for-profit institutions are preferable to the hypocrisy of publicly-funded institutions making money through ODL and using it for other purposes."

- *External constraints on the dharma of distance education.*
  The shady practices mentioned above partly explain why regulators approach distance education programmes cautiously. In some jurisdictions, only programmes that are already in the curricula of conventional universities can be offered at distance. Such policies are misguided because they do not take into account the different target

groups for distance programmes and the particular social needs to which they seek to respond. Open education is too often constrained by the rigidities of the conventional system, which defeats its purpose. Prasad calls distance education in India "an ineffectively over-regulated system".

- *Slow adoption of interactive technologies*.
  Interaction is the essence of education, but Prasad argues that the expansion of its use in developing countries like India is constrained by the attitudes of ODL institutions themselves as much as by delays in the roll-out of the technology needed to support interactive software.
- *Lack of professionalism in management and leadership.*
  Large open universities have as much in common with industrial enterprises as they do with campus universities. Too often this is not reflected in the leadership and management of these systems which fail to meet the simple expectations of students to receive their learning materials on time, to be able to call on professional student support and to have examinations conducted as scheduled.
- *The role of teachers in ODL.*
  Ambiguity in the definitions of the roles of teachers is a challenge for most open universities. Teachers' roles are equally important in distance learning and conventional systems. Indeed, they may be more complex and difficult in distance education because of the use of multiple technologies for teaching-learning purposes. We return to this issue in a later section but a final comment from Prasad is apposite: "there is a constant debate in ODL circles about the roles, responsibilities and relationships (of teachers) with others in the system. Teacher identity is not satisfactorily addressed in ODL systems. The relationships between the multiple players engaged in teaching and learning in ODL are constant sources of irritation. There is a feeling that teachers in ODL are engaged more in management activities than in academic activities. This may not be a satisfying situation for serious academics. The strengthening of ODL system management may relieve teachers from some of the administrative responsibilities and enable them to make meaningful academic contributions."

Before moving on from Prasad's analysis of the disconnect between *dharma* (principle) and *karma* (practice) in ODL in India we make two observations. First, this disconnect is not peculiar to India, although the sheer size of India's ODL sector throws up more examples of it. Second, it is ironic that some open universities seem to be struggling at a time when their missions (*dharma)* are now being adopted as their ambitions too by the wider higher education systems that surround them. This is a new phenomenon. Not long ago most conventional universities would not have espoused the democratisation of higher education and social justice as their goals, save in occasional rhetorical flourishes in the speeches of their presidents and vice-chancellors!

While it is encouraging to see the wider higher education sector espousing inclusiveness, most of its institutions are far less prepared than open universities, both philosophically and

practically, to follow this orientation. What should open universities do to recover their pre-eminence in implementing the contemporary agenda?

Open universities and the Iron Triangle

The revolutionary contribution of technology to education is to make it possible to increase student numbers, cut costs and improve quality – and to do this simultaneously. Open universities are the most powerful expression of this revolution. Daniel (2010, p. 51) has expressed this graphically as the 'iron triangle'.

This representation illustrates the fundamental constraints inherent in education through classroom teaching. Attempts to increase access by putting more students in each classroom will attract accusations of lowering quality, while adding more teachers will increase costs. Similarly, trying to increase quality by reducing student numbers or providing better learning materials will also increase costs, while direct cost-cutting will result either in lower student numbers or poorer quality (or both). These constraints have been the bugbear of attempts to expand education throughout history.

The use of technology allows institutions to break out of these constraints. Here we understand technology in the broad sense, meaning not only machines and electronics but also the basic organisational technologies of specialisation and division of labour promoted by Adam Smith in the 18th century (Smith, 1776). Wedemeyer (1974, p. 4) captured the essential contribution of technology to distance education nearly 50 years ago:

"As an operating principle the system is capable, after reaching a critical minimum of aggregation, of accommodating increased numbers of learners without a *commensurate* increase in the cost of the basic learning experiences: i.e. costs must not be directly and rigidly volume sensitive. After reaching the necessary level of aggregation, unit costs should show a diminishing relationship to total system costs".

Access

This means that open universities are uniquely well placed to expand access to higher education by increasing student numbers. In principle, open universities should be well placed to take advantage of the goal of serving much wider populations that has been legitimised by the United Nations Sustainable Development Goals (SDGs) for 2030. Whereas the Millennium Development Goals of 2000 were limited to basic education, the SDGs for 2030 have higher education as one of their targets, expressed as: "by 2030, ensure equal access for all to affordable and quality technical, vocational and tertiary education including university education."

Whether open universities can actually exploit this UN policy this depends on the size of the pools of potential learners on which they can draw and the obstacles that might prevent such people from enrolling. In these respects, open universities in different parts of the world present a picture of feast and famine. Although overall enrolments in higher education are forecast to increase by tens of millions in the coming decades, many of these potential students are in Asia and Africa, where the open universities are already under great enrolment pressures.

Meanwhile open universities in richer countries face challenges related both to shrinking pools of potential learners and also to the obstacles that stand in the way of their enrolment. Most of these open universities – the UK Open University (UKOU) is a perfect example – began operations when the availability of places in higher education was severely limited and access to part-time higher education was virtually non-existent. When it was launched in 1969, the UKOU could draw on a huge pool of eager applicants – many of them school teachers – who were keen to obtain degrees. While the profile of applicants evolved over the years, the UKOU was able to sustain high enrolments for several decades, reaching over 200,000 in the early years of the 21st century.

Although the pool of potential applicants may well have become smaller in absolute terms, the decline in student numbers at the UKOU in the last decade owes more to the obstacles that would-be students face in joining the institution. The massive expansion of conventional UK higher education institutions – including much wider provision of part-time and distance study opportunities – cannot really be considered an 'obstacle' to enrolment at the UKOU, but this institution lost long ago the quasi monopoly of part-time and distance learning provision that it enjoyed in its early years.

Much more significant for the UKOU, however, is the loss of state funding, both for particular programmes and across the piece. Around the world, most rich-country governments are cutting their financial support to higher education. In the UK, where the governing elite of recent years has almost no personal experience of part-time or distance study, state support for these modes of learning has been practically wiped out. This has placed the UKOU in a quandary. Because of its social mission (*dharma*) the students it attracts are, in general, less able to face steep increases in tuition fees than their counterparts in conventional institutions. Moreover, these older students, who may already have mortgages and loans for other purposes, are less attracted to take state-supported loans for higher education, even when these are available to part-time students.

While open universities in other rich countries have not faced as severe a squeeze in government funding as the UKOU, several have experienced diminished government support in various ways. The smaller ones inevitably have more difficulty in attracting political support and attention than campus universities, not least because legislatures are usually territorially based, which assures the campus universities of vociferous local support. The Toronto Roundtable of open university heads concluded: "Most OUs have been the darling of their government at some stage in their development, but it is impossible to retain this status for decades as governments and their political ideologies change" (Daniel & Tait, 2017).

Costs

This analysis of issues of access indicates that open universities in different parts of the world face very different challenges in the area of cost. The large open universities in Asia and Africa, which can generate surpluses from relatively low tuition fees, face the challenges of adapting the economic structure of their institutions to changing technologies and, more generally, of avoiding the temptation, noted in our earlier quotation from Prasad (2018), of spending their surpluses in ways that do not advance the teaching and student support functions of their institutions.

In richer countries, as noted earlier, open universities may face, in addition to the task of integrating new technologies into the teaching and student support functions, the challenge of cutting costs generally to compensate for a loss of state funding that cannot be made up by hiking tuition fees.

Fortunately, the academic study of the costing of distance education is well-tilled territory. Snowden and Daniel (1980) argued that with careful design, management and cost control, distance teaching institutions could be economically viable with fairly low student numbers. Rumble (1992) warned of the competitive vulnerability of distance teaching universities 25 years ago and Bates (see, e.g. Bates, 2017) has revisited the costs of distance teaching regularly as teaching and student support technologies have evolved over the five decades.

Because of their scale and scope, the challenge for open universities in adapting cost structures to changing technologies and resources lies as much in the implementation of cost-cutting measures as in their design. Like oil tankers, open universities cannot change direction quickly. New approaches to teaching and tutorial support must be pilot tested thoroughly before being rolled out at scale.

Quality

From its beginnings, the UKOU demonstrated that in addition to economies of scale, distance education could achieve 'quality of scale'. In principle, with their large student numbers, open universities can afford to make investments in learning materials, student support and administrative systems that ensure very high quality. Although today's learning media and support systems are different, better integrated and more diverse than the printed materials, broadcasts and face-to-face tutorials that the UKOU pioneered in the 1970s, open universities are still able to enjoy economies and qualities of scale. Contemporary technologies allow students to get more rapid feedback on their work and teachers to update learning materials more frequently.

In summary, open universities continue to less constrained by the 'iron triangle' of access cost, and quality than conventional institutions. It is possible, with judicious design and management, to increase numbers, improve quality and cut costs *all at the same time.*

Independence and interaction: getting the mixture right

Another quotation from Prasad (2018, p.78-79) flags a vital question facing all open universities. He writes: "it is time to rethink the current model of support services provided to distance learners by using available ICTs effectively. Many specialised agencies are also in operation in the field, providing tutorial services and conducting free tutorial services under the open tutorial system. The social media is also extensively used by some OUs for support services. The OUs should revisit their systems of support services to make them more flexible, need based and technology-enabled direct to home services. The learner support in OUs should be based on the principles of engagement, two-way interaction and building the sense of community and belongingness amongst the learners."

Each open university will identify its own challenges in providing student support. It does appear, however, that the 'original' UKOU model requires rethinking in many institutions. This model called for a team of full-time academics to concentrate on course development,

which meant designing materials for largely independent study, while a much larger group of part-time tutors mediated, either locally or electronically, the interaction between the course materials and the students. While this model served the UKOU brilliantly for many years, some of its weaknesses were apparent from the start. One writer in the 1970s talked of the creation of "a large teaching proletariat and a small academic ruling class", while another lamented that "part-time tutors and the students face similar problems on the outside rim of the Open University wheel."

Decades of development of open universities and higher education generally have exacerbated these issues. First, most of the early part-time UKOU tutors embarked with enthusiasm on what was then a radically novel project. Most were academics from other universities. Some found that they enjoyed teaching the older UKOU students more than their own young students on campus and, for this reason, they continued as UKOU tutors for many years. Today the general casualisation of the academic profession has largely swept away such idealism among new recruits. In 2018 Québec's TÉLUQ found that more than a third of its tutors were also working for other institutions.

Second, some open universities are finding that their full-time professors are becoming somewhat disconnected from the reality of students' learning in the courses they have designed. In earlier days, open university courses might run for several years without significant revisions by the original development team. Today, with courses being presented more interactively through electronic platforms, revisions are made more frequently, which requires the course team members to stay closely in touch with the reception of the course by students.

Accordingly, some open universities are insisting that all full-time professors be substantively involved in tutoring their courses, as well as developing them. As a corollary, the management of full-time and part-time academic staff is becoming more integrated. In some institutions, such as the UKOU, the terms and conditions under which part-time tutors are hired have improved substantially over the years, thus enhancing their status and self-esteem.

In making such changes open university leaders must keep a close eye on their impact on institutional economics. The industrial principles of specialisation and division of labour continue to be a key to operating at scale, so open universities must avoid falling back into the 'cottage industry' approach to the teaching function that still obtains at most conventional universities.

Envoi: What do the OU Vice-Chancellors think?

In October 2017, the International Council for Open and Distance Education (ICDE) worked with Ontario's Contact North | Contact Nord (CN) to convene a world conference on online learning in Toronto. The president of CN, Maxim Jean-Louis, decided to convene a closed Roundtable of the world's open university executive heads (vice-chancellors or presidents) alongside the ICDE conference in order that they could share views on the opportunities and challenges facing their institutions. Professor Alan Tait and the author facilitated the event,

where the executive heads shared their views on the following questions (Daniel & Tait, 2017).

- *Open Universities have made openness and access a mainstream concern across higher education (HE) generally. How should they now innovate in their own missions to strengthen their reputations and social relevance?*
  Participants agreed that the SDGs had legitimised this goal of serving wider populations. The challenge is that the really big numbers of new students will be in Asia and Africa, where the OUs are already under serious enrolment pressure. Two of the OUs present had face-to-face teaching streams on campus, accounting in one case for half the student enrolment. These on-campus cohorts bring the OU to the attention of parents and a wider population.
- *How are Open University student demographics shifting? What innovations are needed now?*
  The demographics of OU student bodies are changing in different ways – some towards older students, some towards younger students. While some OUs are seeing the median and average ages of their student body increase, and are having to adapt to the habits and attitudes of older learners, the general trend is in the opposite direction. Most OUs are seeing an increase in younger students, though not usually in school leavers. These younger students are not always more technologically savvy – and they usually have less money to spend – than the older students.
- *Technologies are expanding the options for ODL – which ones hold most promise?*
  Some of the OUs present were now teaching entirely online, whereas others were using printed materials. All have plans to increase their online teaching, but the main conclusion was that IT was proving most useful in the administrative and student support functions. By speeding up processes, these have positive impacts on student progression and retention. In the majority of countries, governments now authorise all HE institutions to offer online and distance learning, putting considerable competitive pressure on the OUs. It is now rare for OUs to have a national monopoly on offering higher education at a distance.
- *OUs should operate at scale – what are the implications?*
  The OUs present at the Roundtable operated at very different scales – not always related to the size of the country's population. Some of the smaller OUs may have handicapped themselves by adopting too fully the division of labour and specialisation of functions characteristic of the industrial model of the larger OUs. With the notable exception of the UKOU and its creation of FutureLearn, the OUs generally have not engaged much with MOOCs (Massive Open Online Courses).
- *Are there opportunities for collaboration among OUs?*
  It appeared that most of the OUs present already had made the partnerships they needed. There was, for example, extensive course sharing between the state OUs in India. Partnerships need close attention and management, even when the original agreements are clear, and the challenges of partnerships are several times greater when they are offshore.

- *The fundamental challenge for OUs is blending flexibility, quality and scale. How do they achieve it?*
  Flexibility is good, but so is structure. One OU had improved its completion and retention rates dramatically simply by tightening up the regulations about start dates and completion deadlines.
- *How do OUs sustain good government relations?*
  This vital aspect of OU management came up repeatedly. Most OUs have been favourites of their government at some stage, but this status can be fragile as governments and their political complexions change. Success in government relations came from using the considerable scale, power and reach of an OU to help the government achieve its education and training goals. The smaller OUs have special challenges, and the near-death experiences of both the Canadian OUs emphasised the absolute importance of nurturing the link between an OU and its government's priorities.
- *What terms to use?*
  A refrain throughout the Roundtable was that whereas most of the OUs felt that the quality of their teaching and support was at least as good as that of the conventional HEIs in their jurisdictions, they – or ODL generally – still had a poor reputation with the public. Some heads felt that using the term 'distance education' – and even the term 'open' was not helpful.

Conclusions

We began this paper by summarising Prasad's (2018) conclusions about the disconnect between the purposes (*dharma*) that OUs claim to espouse and their actual practices (*karma*) in fulfilling them. There should be no cross-subsidisation from surpluses generated by ODL programmes to purposes of no direct benefit to students. Instead they should be invested in speeding up the effective use of interactive teaching technologies. In revisiting the schema of the Iron Triangle of access, cost and quality we concluded that ODL still enjoys advantages over classroom teaching, although these may be more difficult to achieve with contemporary interactive systems. These systems also require a rebalancing of the role of part-time and full-time staff in providing independent and interactive learning opportunities for students. Finally, we summarised a meeting of executive heads of OUs, which emphasised the need to continue promoting the merits of ODL across the world since the terms 'distance education' and even the term 'open' are not attractive everywhere.

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Biographical sketch

Sir John Daniel has been closely involved with the development of open and distance learning for 40 years. After senior appointments at the Télé-université (Québec), Athabasca University (Alberta), Concordia University, (Quebec), Laurentian University (Ontario) and the Open University (UK), he joined UNESCO as Assistant Director-General for Education in 2001 and served as President of the Commonwealth of Learning from 2004-2012. Best known among his 380+ publications are his books *Mega-Universities and Knowledge Media: Technology Strategies for Higher Education* and *Mega-Schools, Technology and Teachers: Achieving Education for All.* The three countries where he has worked have all recognised his contributions with national honours: France – Ordre des Palmes Académiques: Chevalier 'pour services rendus à la culture française en Ontario' (1986); Officier : 'pour services rendus à la culture française au Royaume-Uni' (1991); United Kingdom – Knight Bachelor 'for services to higher education' (1994); Canada – Officer of the Order of Canada 'for his advancement of open learning and distance education in Canada and around the world' (2013).