Whenever English philosopher and broadcaster Professor C. E. M. Joad had to answer a question put to him on the BBC’s The Brains Trust, his first response was always, “It all depends on what you mean by . . .” This certainly applies to online distance education with its wide range of pedagogical methods and technology applications. At one end of the continuum, online learning comprises didactic texts translated into digital form or live or recorded tele-lectures with little or no opportunities for interaction and largely assessed by multiple-choice methods. At the other end is Downes’s (2005) e-learning 2.0, in which, as Ehlers (2012) explains, online learning ceases to be the mere delivery of digital learning products for the students’ consumption and becomes a platform whereupon knowledge and learning are created by students through interaction, collaboration, and inquiry. Between these two points lie an infinite number of forms of provision. So, in discussing quality assurance (QA) in online distance education, we must be mindful that these forms of provision have may have different quality indicators and may require evaluation to occur in different settings and at various stages of e-learning readiness.
The second point to be considered is that extravagant claims can be made for online distance learning, especially by technophiles who regard technology positively, adopt it enthusiastically, and see it as the solution to every education problem. However, not everyone is convinced of its quality. This is partly because, as Thierer (2010) observes, every technological revolution brings out a fresh crop of techno-pessimists and techno-Pollyannas. Even Socrates, in Plato's *Phaedrus*, disparaged the then-new technology of writing claiming that it disrupted social relationships and caused its users to imagine that they were learning a great deal when in fact they were learning nothing of value. There is nothing new about techno-pessimism!

The view that technologically delivered education is just as good as face-to-face instruction is far from universal. Daniel (2010) remarks on the hostility to online distance education shown by the Chinese government by permitting the Open University of China only to offer two- or three-year junior college degree programs rather than the higher-status four-year bachelor degree programs provided by the conventional universities; another example is legislation by the Brazilian, Japanese, and Malaysian governments that stipulates the percentage of degree courses to be provided face-to-face. Even some of those teaching online question the quality of their courses. Seaman (2009) reported that 48 percent of faculty in the US public and land-grant universities with experience teaching online courses concluded that they were “inferior or somewhat inferior” to their face-to-face equivalents, and only 15 percent rated themselves as “somewhat superior or superior.” Two years later, Allen and Seaman (2011) still found that one-third of the senior management in these same universities believed that the learning outcomes of online education were inferior to those of face-to-face instruction, and less than one-third believed that their faculty accepted the value and legitimacy of online education. This explains why Shrock (2009; 2010) reports that not only are there increasing numbers of “We do not accept online coursework” statements appearing on university websites but that some of these institutions reject applications from academics with online degrees—even those they themselves offer!

Such distrust of online learning by academics derives partially from the fact that online distance education is often adopted for reasons of commercial gain or economy or by private for-profit providers, some of whom fall seriously short on quality. For the year 2010, Cohen and Winch (2011, pp. 23–25) reported a 48 percent increase worldwide in the number of online
degree or diploma “mills” (organizations offering bogus credentials for sale). There had been a 20 percent increase in known diploma mills in the US (from 810 to 1,008) and a 31 percent increase in Europe as a whole, where a total of 603 mills now operated. Over half (56.2 percent) of these European mills claimed to be based in the UK, which now had a total of 339, up from 271 in the previous year.

Power and Gould-Morven (2011) characterize online learning as having a “head of gold,” providing the key to better higher education and serving large numbers of low unit-cost enrolments, but “feet of clay,” with low levels of uptake in mainstream academia owing to concerns over quality. Researching US employers’ perceptions of online education, Seibold (2007) found that while they recognized its advantages, they did not think it was equivalent to traditional study because it lacked interactivity and a sense of community. Surveying the current state of development and future perspectives of online learning in European education and training and its contribution to achieving the EU objectives for growth and innovation, Aceto et al. (2007) concluded that online learning still had some way to go in ensuring quality and that the excessive hype and expectations meant that the risk of a bubble burst was high.

The concerns that educational quality can be compromised in online learning point to the need for policy-makers, planners, managers, practitioners, and researchers to provide evidence that online distance education is as good as—and, preferably, superior to—the traditional forms of delivery. A lot of money, time, and effort is being expended on online learning, so it needs to be shown that this is achieving quality educational outcomes.

QUALITY

Writers such as Juran and DeFeo (2010) define quality as “fitness for purpose.” However, this is a corporate perspective and presupposes that it is always possible to foresee how products and services will be used and to ensure that all of the stakeholders have the same needs and expectations. Exploring the nature and usage of the term quality in the higher education context, Harvey and Green (1993) posited that it can be defined not as “fitness for purpose,” but as “exceptional,” as “perfection” (zero defects), as “value for money,” or as “transformative.” This last definition aligns with that of Pirsig (1974), who suggested that quality was an indefinable but
fundamental driver that causes everything to achieve ever-higher quality, and when quality becomes habitual or customary things become static and moribund. Such observations take us beyond QA as a mere box-ticking process of assessing predetermined standards towards a culture of continuous improvement.

ACCREDITATION

Many countries have now established national accreditation and QA agencies. Their regulatory and quality review arrangements may vary according to the kinds of provider (private, public sector, or overseas), types of provision (face-to-face, blended, or distance learning), and levels of provision (institutional, program, or educational service), and they are generally tailored to the individual countries’ particular circumstances. However, Middlehurst and Woodfield (2004) and Jung, Wong, Li, Baigaltugs, and Belawati (2011) find commonalities of culture and practice underpinning these different approaches. All of the agencies aim to assure students that institutions and programs meet endorsed academic and professional standards and to enable educators, peak bodies, professional accreditation bodies, and others to reach agreement upon these standards. The granting of accreditation or the assurance of quality typically relates to:

- student outcomes
- curriculum, courses, and courseware
- teaching and learning
- student and faculty support
- assessment, evaluation, and internal QA systems
- management
- staff
- resourcing
- returns on investment and benefits to the national economy and society

However, Gallagher (2010) claims that determining the performance indicators and measures for these is often contentious, with the more powerful stakeholders’ perspectives prevailing. The agencies also tend to be more concerned with the easily measurable inputs (such as the number of teachers, library provision, and student attrition rates) rather than the outputs,
outcomes, and impacts (the benefits to the graduates, economies, and society as a whole). They may also apply minimum standards and soften the pass/fail nature of accreditation by providing probationary periods and opportunities to reapply (Chalmers & Johnson, 2012).

Two notable exceptions to national regulatory bodies overseeing the quality of higher education are Canada and the U.S. As federal systems, they both have a complicated mix of licensing requirements and accreditation standards. These confront and often confound providers wishing to operate beyond their own provincial or state borders and can create tensions between national and local systems and institutions striving to maintain their long-held local or regional autonomy and competitive market positions. They also enable rogue operators to take advantage of the regulatory gaps, having a negative impact on the reputation of online learning as a whole (Parker, 2012).

Mutual trust and recognition agreements among accreditation and QA organizations are an indispensable element in assuring that institutions, courses, and programs meet the required standards. The strongest political basis for such mutual accreditation is the 1999 Bologna Declaration. This declaration proposed a European higher education area in which students and graduates could use prior qualifications in one country as acceptable entry requirements for further study in another and led to the establishment of the European Credit Transfer and Accumulation System. In 2003, the ministers of the signatory states charged the European Network for Quality Assurance in Higher Education (ENQA) with developing an agreed set of standards, procedures, and guidelines on QA for higher education. The resultant Standards and Guidelines for Quality Assurance in the European Higher Education Area dealt with the issues of institutional QA, external QA, and the external QA agencies themselves. However, ENQA stressed that the prime responsibility for QA must remain with the universities and that this called for the creation of an institutional culture that focusses on quality.

Countries attach great importance to sovereignty over their higher education systems, and the differences in their accreditation systems stand in the way of comprehensive QA frameworks for transnational higher education and attempts to protect students against substandard international distance education providers. The OECD’s 2005 Guidelines for Quality Provision in Cross-Border Higher Education, developed in collaboration with UNESCO and 30 member countries and expert bodies, set out how governments,
higher education and other providers, student bodies, QA and accreditation agencies, and academic and professional recognition bodies can share responsibility in the sending and receiving countries.

The OECD guidelines are not legally binding, and again, mindful of the diversity of national higher education systems, they leave the member countries to assume responsibility for their own QA frameworks. However, they have been endorsed by the American Council of Education, the International Association of Universities, and the Association of Colleges and Universities of Canada and form the basis for the QA and accreditation systems of the regional networks responsible for transnational higher education in Arab, Association of Southeast Asian Nations (ASEAN), Asian-Pacific, Caribbean, Central and Eastern European, Ibero-American, and African countries. All of these regional associations have signed memorandums of understanding with the International Network for Quality Assurance Agencies in Higher Education (INQAAHE), a worldwide association of 200 or so organizations involved in QA in higher education. INQAAHE has also published Guidelines of Good Practice for Higher Education Quality Assurance Agencies (for a critical review, see Blackmur [2008]). However, there is, as yet, no overall agreement on the standards and accountability measures to be applied to transnational online distance education and on whether these should be the same as those for conventional higher education.

**ONLINE DISTANCE EDUCATION**

QA in online distance education is a more contentious issue than it is in campus-based education. Some writers, such as Woodhouse (2006), hold that the criteria for judging inputs and processes and their correlation with quality outcomes are similar in both face-to-face and online distance education; however, because teachers, students, and resources are dispersed, online, and possibly in different countries, assessing quality may require different questions and enquiry methods. By contrast, writers such as Jara and Mellar (2009) argue that the QA arrangements for e-learning should be different from those applied to traditional distance learning and on-campus delivery. Among the elements they see as distinctive to online distance learning are:

- **Distributed teams.** Academics may work in collaboration with other professionals in developing and delivering courses and support
systems without necessarily being in the same location.

- *Disaggregated processes.* The design, teaching, and assessment may be carried out by different people or teams (and may sometimes be outsourced).

- *Distant location of students.* Staff members have limited opportunities to interact with students and are dependent upon students' willingness to log in and respond to their requests.

- *Openness to review.* Because content, resources, and communications are mainly text-based and usually archived in electronic form, they can be subject to more in-depth, continuous, and unobtrusive monitoring of participants' activities.

Other factors have an impact on quality in the case of open institutions. Conventional schools, colleges, and universities operate on a *quality-in* model, carefully managing the qualifications and numbers of the entrants. By contrast, open providers such as India's National Institute of Open Schooling or the UK's Open University operate on a *quality-out* model. They believe that it is never too late to learn and accept entrants with no or lesser formal qualifications and whose strengths and talents are less easy to identify. Achieving the necessary completion and graduation rates with such students places enormous demands upon staff and resources. Moreover, different performance indicators may be needed to assess the value-adding dimensions of the teaching and learning, the extent to which the learners improve on their earlier performance or exceed what they might reasonably have been expected to achieve, and the long-term benefits of their education, to themselves and to society.

Many open and distance students across the globe are in rural, remote, or marginalized communities. They lack any tradition of formal education, role models, or access to the kinds of knowledge and resources taken for granted in more privileged settings. The curricula, teaching styles, delivery and assessment methods, and support systems need to be designed so as to help these learners find pathways out of their disadvantage, and there is call for special effort and, arguably, special performance indicators.

Many open and distance institutions also serve huge numbers of learners, and, as Daniel (2010) observes, it is easy to lose a culture of quality customer service in institutions swamped by demand. India's Indira Gandhi National Open University serves around 3.5 million students in India and 40
other countries. The Open University of China has over 2.5 million students. Turkey’s Anadolu University has an enrolment of over 1 million off-campus students in Turkey, the Turkish Republic of Northern Cyprus, and Western European countries. Providing teaching, learning, and support for such large numbers is costly and challenging. Stripped-down, low-overhead provision may appeal to the many learners anxious to obtain qualifications for reasons of employment and to governments and private providers, but they certainly present enormous challenges in terms of quality.

Then again, many online distance education providers are not only challenged by the tyranny of distance but also by the requirement to operate across geo-political boundaries. Transnational institutions such as the University of the South Pacific and the University of the West Indies must meet the expectations of the governments of their member countries. The Spanish National University of Distance Education provides distance education for its more than 180,000 students in Bata, Berlin, Berne, Brussels, Buenos Aires, Caracas, Lima, London, Malabo, Mexico City, Paris, and São Paulo. The Virtual University for the Small States of the Commonwealth provides online professional, vocational, and technical distance courses within a transnational qualifications framework that can be readily adapted to the national contexts and crediting systems of 30 small nations. India’s National Institute of Open Schooling, serving 1.9 million students with only 251 full-time staff, relies upon thousands of managers, teachers, facilitators, and other personnel in a network of regional centres, study centres, schools, vocational institutions, and non-governmental organizations across the subcontinent. How effectively and efficiently such partnerships and networks are coordinated and managed clearly affects the quality of the educational services.

**Quality Standards for Online Distance Education**

Quality standards aim to represent agreed levels of service or organizational performance that should be met each and every time. In regard to quality standards for e-learning, Bates (2010) expresses surprise at how often academic colleagues argue that there are none. Among those that he recommends are:

- FuturEd and Canadian Association for Community Education,
Canadian Recommended E-learning Guidelines (CanREGS) and Open eQuality Learning Standards

- Quality Matters Program (US)
- QAA’s amplified *Code of Practice for the Assurance of Academic Quality and Standards in Higher Education: Section 2, Collaborative Provision and Flexible and Distributed Learning (Including e-Learning)* (UK)
- Swedish National Agency for Higher Education E-learning Quality
- European Association of Distance Teaching Universities, *Quality Manual for E-learning in Higher Education*
- E-Learning Maturity Model (New Zealand)
- Australian Flexible Learning Framework Toolboxes (Quality e-Learning Resources)
- Australasian Council on Open, Distance and E-Learning, *ACODE Benchmarks*

Universities can also assure quality by comparing their processes and performance metrics to best practice in other institutions, nationally or internationally. Benchmarking e-learning is extensively described by Bacsich (2005; 2009a; 2009b). Examples include the Higher Education Academy/JISC Benchmarking of E-learning Exercise in the UK; EU projects such as Benchmarking of Virtual Campuses (BEN VIC); MASSIVE; European University Quality in eLearning (UNIQUE); Re.ViCa and the E-xcellence scheme; Quality Matters (QM), used by many US universities; Pick&Mix (Bacsich, 2005) in the UK, now used commercially in the EU and Canada; the e-learning Maturity Model (eMM), developed by Marshall and Mitchell (2004) in New Zealand and also used in the UK, Australia, and the US; and the Australian Council on Open, Distance and E-Learning (ACODE) benchmarks.

Lucent Technologies (1999) suggest that three approaches are commonly adopted in applying QA to online distance education:
• a service model that focusses on providers’ embedding quality in distance delivery methods, courseware, and support services

• a stakeholder analysis model that involves more than the learning providers in defining quality and setting the benchmarks

• a quality improvement model that involves continually assessing stakeholder expectations and addressing indicators of quality and areas of concern

However, it is clear that there is no “one size fits all” model. Some online distance education QA frameworks—for example, the European Foundation for Management Development Certification of E-learning (EFMD CEL)—concern program accreditation. Others focus on institutional accreditation, such as the European UNIQUE. Some focus primarily on product. For example, Nichols (2002), citing Garvin (1988), suggests that online learning standards should concern:

• **Performance.** The finished product should operate in an effective way, as determined by the enduser.

• **Features.** The “bells and whistles” incorporated into the finished product should be appropriate and not detract from the overall objectives of the project.

• **Reliability.** The finished product should not be subject to malfunction.

• **Conformance.** The finished product should comply with industry standards, using standard technologies (although those technologies can be pushed to their utmost), and reflect established education theory.

• **Durability.** The finished product should be relevant and either timeless (in the case of teaching established principles) or easily updated.

• **Serviceability.** It should be easy to repair or adjust the finished product as required.

• **Aesthetics.** The overall “feel” of the finished product should be professional and user-friendly.

• **Perceived quality.** The finished product should enhance the reputation of [the institution] as a quality. (p. 2)
Quality Assurance in Online Distance Education

The UK Quality Assurance Agency’s earlier Guidelines on the Quality Assurance of Distance Learning (1999) were concerned with adapting and extending standard QA procedures for the approval, monitoring, and review of programs to cover non-traditional modes of delivery and learning based on ICT, whether delivered on campus or at a distance. The guidelines covered:

- system design
- program design, approval and review
- management of program delivery
- student development and support
- student communication and representation
- student assessment

The QAA Code of Practice for the Assurance of Academic Quality and Standards in Higher Education, Section 2: Collaborative Provision and Flexible and Distributed Learning (Including e-Learning)—Amplified Version (QAA, 2010) covers on-campus as well as distance provision. Part B of this code considers the outcomes expected of such provision, including the e-modes. Expressed from a student’s point of view, these are grouped according to delivery, learner support, and assessment and are supported by explanations of the reasoning behind them.

The QAA code also refers to relevant British Standards Institution (BSI) publications regarding QA of e-learning. For example, BS 8426:2003 (BSI, 2003) concerns e-support in all forms of e-learning, whether human tutors are involved or the e-support is automated, whether the learners work individually or in groups, and whether the pedagogy involves learners in constructing their own understanding or in committing content to memory. These standards include the procurement, design, benchmarking, development, evaluation, and communication of information about e-learning courses, learning materials, and e-support services, including online tutorials and intelligent system performance aids.

Barker (2007) states that the FuturEd Open eQuality Learning Standards developed, sponsored, and endorsed by a number of national and international organizations stipulated that these standards should be:

- Consumer-oriented – developed with particular attention to return on investment in e-learning for learners
• **Consensus based** – developed through consultation with a balance of provider and consumer groups

• **Comprehensive** – inclusive of all elements of the learning system: outcomes and outputs, processes and practices, inputs and resources

• **Recommended only** – using persuasion and market forces rather than legislation to ratchet up the quality of e-learning

• **Futuristic** – describing a preferred future rather than the present circumstances for design and delivery

• **Adaptable** – best used for adult and post-secondary education and training but adaptable to other levels of learning services (p. 110)

Bates (2007) observes that criticisms of the quality standards applied to e-learning may reflect the dominance of technical standards and external assurance standards over more pedagogically directed quality issues.

Ehlers (2004; 2012) argues that e-learning 2.0 requires different questions to be asked, different objects and processes to be evaluated, different quality criteria to be applied, and different approaches to be adopted. He posits that QA should progress from being primarily concerned with input variables, evaluating pre-determined objectives, learning environments and content developed by faculty, to assuring and assessing outcomes. He suggests that quality should be measured in terms of the extent to which particular learning scenarios stimulate the learners, motivate them to find, remix, and repurpose content to accord with their own intentions, and share their content and ideas with others—not necessarily in the same institution or the same country.

Ehlers (2012) also suggests that there should be a greater emphasis on learners’ perspectives on quality. He finds that online learners judge quality in online provision in terms of:

• communication and interaction between tutors and learners

• communication and collaboration with other learners, experts, or tutors

• the expected technical standards

• the cost and effort involved in the learning experience in relation to the benefits and outcomes

• the provision of standard information and individualised counselling
on course content, learning methodologies, and technical matters

- a sense of “presence” in the lessons (although this is more highly valued by some groups of learners than others)
- the didactics (content, learning goals, methods, and materials)

Jung (2012) observes that while customer focus is a tenet of QA, very few online learning QA frameworks take serious heed of students’ needs and expectations. Two exceptions are Canada’s Open eQuality Standards and the European Commission–funded Sustainable Environment for the Evaluation of Quality in e-Learning (SEEQUEL). She suggests that for quality to be assured it is important to consult with students to determine the following:

- The extent to which students with different learning styles, motivations, and technological competencies differ in their perceptions of quality in e-learning
- The extent to which learners with different prior learning experiences perceive the quality of e-learning
- The extent to which learners’ perspectives of e-learning quality is culturally determined
- The extent to which providers’ and learners’ perceptions of e-learning quality coincide or are complementary or in conflict
- How findings on learners’ perceptions of e-learning quality can be applied to improve the quality of QA frameworks for e-learning and help to develop the culture of learning

Grifoll et al. (2009) suggest that new QA indicators may be needed with the evolution of new teaching and learning technologies that enable the establishment of new and diversified educational communities and redefinition of student’s roles, from that of learner to that of explorer.

**TRANSNATIONAL ONLINE DISTANCE EDUCATION**

Harry and Perraton (1999) observe that, while distance learning widens access, it can be culturally laden and threaten time-honoured educational practices. Wong (2007) warns of cultural bias in programs derived from
Western cultures. Talalakina (2010) observes that teachers and learners in cultures at the collectivistic end of the value spectrum, who are more accustomed to teacher-centred environments, may have problems with Western-style programs embodying an individualistic value system. Western education is concerned with encouraging students to thoughtfully examine and debate ideas and issues. It originates in the Socratic method (Rud, 1997) and in the approaches of such educational pioneers as the English abbot Ælfric of Eynsham (c. 955–c. 1010), who assigned each pupil a role and invited him to engage in spontaneous, individual, and inventive philosophical debate (Watkins, n.d.).

In Asian societies, such humanistic, progressive, analytical, and radical approaches may conflict with the Confucian legacy wherein the central theme is order, the teacher is responsible for transmitting the knowledge, the learners’ duty is to absorb and reiterate whatever the teacher teaches, and the examination system is designed to test this transmitted knowledge. Wang (2006) describes how in People’s Republic of China the authorities deny teachers the freedom to teach as they wish, and so they must grapple with two competing sets of requirements: the need to conform to the administrators’ expectations and the need to respond to the diverse needs of their students.

Similar issues can arise in the Islamic countries. Islam means “voluntary surrender to the will of Allah,” and the Qur’an is considered the literal word of God. Gursoy (2005) observes that the time-honoured responsibility of teachers in Islamic countries has been to preach the text, and the students’ duty has been to memorize the text. Khafagi (2004) suggests that in Middle Eastern countries the Internet is regarded as a source of information and entertainment rather than as a learning tool and that this, plus the tradition of oral learning in Arabic cultures, lead to different patterns of learning. The World Bank (2008) notes that in Arab countries, teacher-led, face-to-face instruction is considered quality education and ICT is primarily used for information transmission and passive learning. Studying Arab distance education students in the US, Al-Harthi (2005) found that, while students liked the anonymity of online learning, they still depended on their tutors to define the rules and procedures and initiate communications, were reluctant to make uninvited contributions or ask for clarification, and, in the absence of oversight from their teachers, tended to procrastinate. Culture also affects the nature of organizations and relationships. (Gunawardena provides a detailed
overview of cross-cultural issues in global online distance education in chapter 2 of this volume.)

Hofstede’s (1990) Power Distance (PD) index indicates the extent to which different cultures expect power to be distributed. High PD countries have centralized political power, hierarchical organizations, and large differences in status and income. Low PD countries have flatter organizations and greater equality. Asian countries score highly on the PD index, which again explains why many Asian learners regard their teachers or set texts as the principle authoritative sources of knowledge, regard themselves as inferiors, and prefer to learn passively rather than interact with their teachers in person or online (Wang, 2007). By contrast, most teachers and learners in Western universities regard themselves more as partners in learning. PD not only has ramifications in pedagogy, but it can also affect the openness and accountability in QA systems.

Latchem and Jung (2010) show that e-learning can mean different things in different cultures. In Asia, for example, e-learning often involves telelecturing by streamed video/audio or videoconferencing, instructional packages, and multiple-choice testing rather than the self-paced, socially constructed Web 2.0 learning of the West. In Japan, 82 percent of university classes are lecture-based, with the expectation that students will recall what they are taught, rather than engage in critical, independent enquiry and in articulating and defending viewpoints. And one of the reasons for the inability of the Open University of Japan to move into e-learning is that it is bound by a law declaring that it “shall offer educational services through broadcasting and face-to-face classes at local study centres,” which is why it is still known as *Hoso Daigaku* (broadcasting university) (Aoki, 2009; 2010).

To summarize, QA in transnational online distance education needs to take account of the degree of e-learning readiness in the populace and institutions (Kapp, 2005), the cultural differences between countries and institutions in terms of QA procedures, definitions of *quality* and *standards* (Billing, 2004), PD factors (Hofstede, 1990), and ways of communicating (Hall, 2000). Thus, in judging the quality of transnational programs, special performance measures are required, for example, in regard to:

- the nature and extent of collaboration with the overseas partners in course development and delivery
- allowance for different states of e-learning readiness, language competency, and teaching and learning styles
• inclusion of intercultural case studies, role plays, and experiential learning
• opportunities for interaction, reflection, and conceptual and practical understanding of how people differ across cultures.

QUALITY ASSURANCE AND OPEN EDUCATIONAL RESOURCES

In 2001, in an unprecedented move, the Massachusetts Institute of Technology announced the release of nearly all its courses on the Internet for free access. Since then, the number of institutions offering open educational resources (OERs) has increased, and the emergence of Web 2.0 and open content licensing of learning materials has led to the concept of the Open Educational Resource University (OERU) (Stacey, 2011; Taylor, 2011). The OERU is a partnership of accredited universities, colleges, and polytechnics across five continents that enables learners to study online, for free, anywhere in the world. Should students wish to gain academic credit, they can also pay reduced fees when they feel ready for assessment.

Andrade et al. (2011) express concern that, while educational institutions, teachers, students, and self-directed learners may find it easy to access OERs, they may find it more difficult to be sure of their quality. Hylén (2006) observes that some users may be persuaded by the reputation of a particular provider. For example, users can be confident of the academic and pedagogical standards of the MIT OpenCourseWare and of the courses and materials from such institutions as the Carnegie Mellon University, Rice University, or the Open University. Or the resources may have been peer-reviewed. For example, most of the free and open collection of online teaching and learning resources listed by the Multimedia Educational Resource for Learning and Online Teaching (MERLOT) have been peer-reviewed in terms of quality of content, teaching and learning potential, and ease of use by teachers and students. However, not all of the OERs in this repository have been reviewed. Another approach can be letting the users themselves rate and/or comment on OERs and how they have used them. Other users could check the evaluations and the number of downloads for particular OERs and then decide for themselves whether the OERs are useable, reusable, repurposeable, and of high quality. However, peer review is time consuming, so it may be advisable for some organizations to develop a quality checklist for
OERs, focusing on trustworthiness of content, quality of pedagogy, legality, accessibility, technical interoperability, and other issues.

Hylén concludes that one can predict a growing debate on the new cultural and economic, as well as educational, realities of OERs. If their use is to take hold in education, some form(s) of QA will be needed to ensure that they conform to best practice. The same argument holds for the more recent learning phenomenon of Massive Open Online Courses (MOOCs), which are attracting so much interest among governments, institutions, and philanthropic and corporate agencies. Some MOOCs are designed to enable anyone, anywhere, to study at the university level for free or test their learning readiness by taking “taster courses.” Some MOOCs are “digital storefronts,” designed to market providers’ brands globally. Some providers see massification as a way of increasing openness and access; others see it as a means of economizing or profiteering. Some providers are elite institutions, while others are for-profit start-ups. The so-called cMOOCs use constructivist principles, whereas xMOOCs employ a knowledge transmission model. Advocates regard MOOCs as a “disruptive technology,” developing new markets and new models. Bates (2012) sees them as retrograde, arguing that MOOC supporters talk as if distance learning had just been invented and nothing was known about the need for quality in instructional design and for learner support. In view of the high non-completion rates being reported, Yuan and Powell (2013) suggest that the issues of quality (including the awarding for degree credit, sustainability, pedagogy, as well as the awarding of credit for MOOCs, are of major concern for higher education.

**THE COSTS OF QA IN ONLINE DISTANCE EDUCATION**

Academic resistance to managerialism (Anderson, 2008) must be acknowledged. And burdensome, overly costly, and bureaucratic QA procedures must be avoided at all costs.

Kaner (1996) recommends consulting those directly involved (students, teachers, administrative support staff, technical support staff, etc.) in order to hear their complaints about the time, costs, and inconvenience of any quality failures in systems, programs, and services and then using this feedback as evidence of the cost benefits of QA. Campanella (1999) argues for calculating the “total quality costs” of avoiding defects at the outset. This
can be done by first establishing the costs of gaining stakeholder consensus on the needs for QA, the development of QA policies and procedures, the provision of training in QA, and the formative and summative evaluation of products and services to ensure that these conform to the required standards—and then by setting these against the internal and external failure costs and the opportunity costs. *Internal failure costs* are incurred when programs need to be revised, replaced, or abandoned before they are delivered to the public. The later this occurs, the higher the costs. *External failure costs* arise once programs are being delivered and, for example, an unanticipated need arises to deal with learners’ problems and complaints, or dropout and failures rates are higher than estimated, or there is adverse publicity and loss of trust or morale, and so on. The costs of remediation at this stage are typically far higher than internal failure costs. *Opportunity costs* are the benefits that can be achieved if failure costs are not incurred.

Highly developed QA systems ensure that quality products and services are quickly and efficiently delivered and gain user satisfaction with, and stakeholder confidence in, the systems, programs, and services. On the other hand, the prevention and appraisal costs of zero-defect systems can be high. So, as Nguyen and Pirozzi (2006) advise, it is important to calculate what form of QA will provide the best return on investment. To keep quality costs in balance, Laurillard (2007) suggests determining the critical benefits and their related costs as follows:

- clarify the purpose of a technology-enhanced learning innovation
- identify the key parameters that confer learning benefits
- compare old, new, and blended methods
- model alternative plans
- support an iterative approach to designing a plan against the cost it generates
- capture the planning in a form that can be communicated and revised
- define the staff resources needed to realize a plan
- assess the per student cost of the teaching time for a course (p. 24)

**IS ONLINE DISTANCE EDUCATION YET GOOD ENOUGH?**

Unfortunately, as Ryan and Brown (2012) have found, with a market-driven philosophy and the abandonment of centralized online distance education
support, many of the lessons learned over the years regarding quality in off-campus and technology-based provision are now being disregarded. They instance the audits of two institutions with long and honourable traditions in distance education conducted by the Australian Universities Quality Agency (whose operations have now transferred to the Tertiary Education Quality and Standards Agency). Despite one university’s professed commitment to the ACODE benchmarks and the other’s claim to be “at the forefront of online learning,” these audits showed the quality of these two institutions’ online distance provision to be very much in question. These AUQA reports serve to identify the gap than can exist between the rhetoric and reality of quality, and they reinforce Reid’s (2005, p. 4) conclusion that the current pervasive social ideology is “constructing Australian universities as entrepreneurial businesses in an education marketplace.”

James Joyce once described errors as “portals of discovery,” but Romiszowski (2004) observes that it is extremely difficult to identify specific reasons why online distance education projects fail or exhibit serious problems. He sees this as a limitation but also an opportunity for a research agenda that builds on what has been established in the field and verifies what has not. He suggests that the factors that most strongly affect the ultimate success or failure of online applications have less to do with the technologies and technicalities of course design and more to do with the broader and more general factors that influence the success or failure of any innovation. He provides a timely reminder that educational technology involves the design, development, application, and evaluation of systems, methods, and media for learning, not simply the hardware and software.

AN OUTCOMES APPROACH TO QA

Many claims are made for online distance learning. For example, UCL (n.d.) suggests that it

- widens access and equity
- permits study at any time and location
- places the responsibility for learning with the students, which equips them for lifelong learning
- increases motivation by engaging students in interaction
• provides contiguous feedback so that students can reflect on their mistakes
• provides staff and faculty with more time for teaching development and research as a result of the automation of repetitive teaching and administration duties
• improves teaching quality through the review and update of teaching practices and the introduction of new technology
• saves time and money, thus unlocking further resources that can be used for enhancing teaching and so forth

It is essential to collect evidence that support these claims for the following groups:

• governments, institutions, and others, to help them envision, define objectives, and prioritize the responsible and effective provision of funds and resources for online distance education
• providers, who require evidence of the impact and benefits of their programs
• e-learners, who require assurance of the economic value and standards of provision and qualifications
• other stakeholders eager to see online distance education receive greater recognition and support

However, many online distance education QA systems are essentially concerned with measuring inputs such as management, funding, staffing, technology, infrastructure, and instructional design. To meet the various stakeholders’ needs and expectations, it could be argued that QA measures should be more concerned with:

• Outputs. The immediate educational effects of online distance provision.
• Outcomes. The short- to medium-term individual, institutional, and societal consequences of these outputs.
• Impacts. The longer-term, significant, and sustained improvements in national socio-economic circumstances, institutions, and graduates.
Kirkpatrick’s (1994) widely used model for teaching, learning, and training measures four levels of outcomes:

1. what the learners thought and felt about the learning experience
2. the resultant increase in knowledge or capability
3. the extent of behaviour and capability improvement and implementation/application
4. the cost-effectiveness of the methods and their effects on the learner’s environment

It is difficult to find an example of this from higher education. But let us consider the QA of a non-formal online distance education program: the Commonwealth of Learning’s Lifelong Learning for Farmers (L3F) program in Tamil Nadu, India.

When this program was originally conceived in 2004, the aim was to evolve a self-replicating and self-sustaining program in lifelong learning for farmers, using modern ICTs to build capacity in developing value-added farming, ensuring food and livelihood security, and encouraging the more sustainable use of natural resources. Two years into the project, Speirs (2008) could report that 500 villagers regularly attended the ICT-based learning sessions; that learning materials, CDs, newsletters, and Internet/intranet presentations were available; that ICT kiosks had been established; that the number of bank loans to farmers (60 percent of whom were women) had increased; that goat-rearing methods, market options and prices, and family circumstances had improved; and that other NGOs and villages were becoming involved. Achieving these outcomes cost the Commonwealth of Learning (COL) less than USD 80,000, most of which was spent on local consultancies. All the other resources came from local partners, extension agencies, and banks, as well as a telecom provider attracted by the business prospects.

A year later, Spaven (2009) reported that COL had found partners willing to transfer the model to Sri Lanka, Mauritius, Papua New Guinea, and Uganda. And two years after this, Thamizoli, Francis, Soundari, Kamaraj, and Balasubramanian (2011) were able to report that, in the previous two years, 5,000 women farmers had studied dairy methods, goat rearing, horticulture, finance, business, credit management, and law and human rights by means of m-learning, multimedia, local television, and face-to-face training. The total credit to the L3F farmers and total turnover of their enterprises had
increased markedly; the L3F farmers had significantly higher value assets, income, and household infrastructure than the other farmers; their learning behaviour was significantly different; and they had stronger cognitive social capital and a higher level of empowerment. These farmers had also created their own website for m-learning in the Tamil language for other farmers, featuring multimedia agricultural learning materials, regional agricultural news, and daily weather and market information. Would that there were more such longitudinal impact and outcomes studies being conducted in all sectors to provide evidence of the quality of online distance education.

Quality of outcomes is receiving increasing attention at the governmental, institutional, and academic program levels. Adamson et al. (2010) argue that clear statements and evidence of learning outcomes make qualifications more transparent for students; help employers better understand the knowledge, skills, and competencies of applicants; increase transparency and comparability between qualification standards (for example, within the Bologna Process); and inform course design.

The Commonwealth of Learning (Latchem, 2012) offers a practical guide on how to measure outputs, outcomes, and impacts in online distance education applications in the non-formal sector. This model could be extended and adapted to other sectors.

The OECD has been conducting a Feasibility Study for the Assessment of Higher Education Learning Outcomes (AHELO), the purpose of which to see whether it is practically and scientifically feasible to assess both the inputs (what the students bring to their degree studies) and the outputs (what they graduate with) across different cultures, language groups, and institutions. It was envisaged that this could help universities assess and improve their teaching, aid students in making better informed choices in selecting institutions, help policy-makers to ensure that the considerable amounts spent on higher education are well spent, and enable employers to know whether the skills of the graduates entering the job market matched their needs. The feasibility study has focussed on generic skills (critical thinking, analytic reasoning, problem-solving, and written communication); discipline-specific skills in economics and engineering; and contextual information to link these data to the students’ backgrounds and learning environments. The issues of value-adding analysis and value-adding models have also been considered. While it has been found that much of AHELO is workable, and while the study has provided lessons and stimulated reflection on how
learning outcomes might be more effectively measured in the future, at the time of writing no decision has been made to undertake a main study (OECD, 2012; 2013).

Arguably, such an outcomes-based approach to QA could be applied in judging the quality of all forms of technology-based learning in conventional classrooms, open schooling, workplace-based training, and formal and non-formal education. The number and calibre of student enrolments and retention rates, the participation of those from low socio-economic or geographically disadvantaged communities, and the number of credits achieved could be measures of quality. And where e-learning 2.0 methods are employed, with knowledge being created, negotiated, shared, remixed, repurposed, and applied in new contexts, rather than simply taught, learners’ capacities could be measured in these terms:

- acquisition of the knowledge, skills, and attitudes required for employment, lifelong learning, and best thinking in the learners’ particular fields
- self-directed learning and constructing and applying new knowledge
- interacting and collaborating with others in creating and discussing knowledge rather than always being dependent upon ready-made content and viewpoints
- recognizing, reflecting on, and responding to personal learning needs, strategies, and progress
- using information retrieval, communication, and creative tools effectively and efficiently
- monitoring and documenting progress in portfolios and developing reports and presentations in various media
- critically reflecting on and developing personal conclusions about the role, ethics, and use of technology in society

It follows from this that the quality of faculty could be judged in terms of:

- leading and innovating in the adoption of learner-centred methods and technology applications
- serving diverse talents and opening up new opportunities for learning through online distance learning
• devising and managing relevant and purposeful assessment and feedback strategies
• researching and improving knowledge and practice in online distance education

The *quality of institutional and partnership management* could be assessed in terms of:

• responding to the forces driving the online distance education agenda
• developing and implementing visions and plans
• understanding and continually improving the learning experiences of students
• encouraging, supporting, and rewarding staffs’ roles and activities
• determining critical success factors that will improve institutional performance and outcomes
• ensuring quality in online distance education

In addition, evidence would also be needed to demonstrate that online distance education course credits or credentials are recognized locally and internationally as having the same value and transferability as those of conventionally delivered programs and that both learners and providers are receiving adequate returns on their investments of time and resources.

**CONCLUDING REMARKS**

This chapter has raised a number of critical questions about QA in online distance education, all of which call for further research. For example:

• Should online distance learning be accredited and judged by the same measures and standards as conventional teaching and training, or do its distinctive attributes warrant special consideration?
• Should such learning be judged in terms of inputs or outputs, outcomes, and impacts?
• What systematic QA mechanisms are needed to demonstrate the quality of OERs?
• How do different cultures interpret and measure the quality of online
distance education, and are different quality standards needed to match these cultural differences?

Finding answers to these questions calls for a move beyond advocacy, rhetoric, and small-scale studies to undertaking long-term studies that demonstrate whether and how online learning can help schools, colleges, and universities produce students with the generic attributes and internationally competitive standards required for the 21st century by achieving: excellence (superior, exceptional, and distinctive education), consistency (quality for all learners in all situations), fitness for purpose (meeting all stakeholders’ needs and expectations), value for money (achieving the same educational outcomes at a lower cost or better educational outcome at the same cost), and transformation (significant, systematic, and sustained improvement and innovation).

As Bates (2011) reminds us, it is critical to ask where the decision to move into e-learning originates. Is it simply the brainchild of some senior manager who believes that online learning should be adopted for purely strategic or financial reasons? Or is it adopted because some department head or individual thinks, “Build it and they will come”? Or does it come from an institution that has carefully thought through how and why it should use online distance learning, has established a student need best met by online learning, has determined which courses should be delivered online and which through blended learning, and has identified what training, time, and resources will be needed? As Bates observes, all but the last of these are bound to fail the quality tests.

Bates (2010) notes that because online distance education is still often under a cloud of suspicion, it can be subject to more demanding forms of QA than conventional teaching and learning. So QA needs to be approached with due care.

Chalmers and Johnson (2012) observe that minimum standards often apply in accreditation and QA. For online distance education to demonstrate its worth and capacity to transform education, minimum standards are not good enough. Rigorous and critical self-, peer-, and institutional reviews are required to pursue the ideal of ever-higher quality. And QA should not simply be mandatory, external, and concerned with accountability, but voluntary, internal, and concerned with developing a culture of quality. Ultimately, governments, institutions, and other funding bodies will be prepared to fund and
support only those systems and methods that achieve outstanding outcomes and are likely to have a major impact in the future.

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336 LATCHEM


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