The myths about e-learning in higher education

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Abstract
Proponents have marketed e-learning by focusing on its adoption as the right thing to do while disregarding, among other things, the concerns of the potential users, the adverse effects on users and the existing research on the use of e-learning or related innovations. In this paper, the e-learning-adoption proponents are referred to as the technopositivists. It is argued that most of the technopositivists in the higher education context are driven by a personal agenda, with the aim of propagating a technopositivist ideology to stakeholders. The technopositivist ideology is defined as a ‘compulsive enthusiasm’ about e-learning in higher education that is being created, propagated and channelled repeatedly by the people who are set to gain without giving the educators the time and opportunity to explore the dangers and rewards of e-learning on teaching and learning. Ten myths on e-learning that the technopositivists have used are presented with the aim of initiating effective and constructive dialogue, rather than merely criticising the efforts being made.

Introduction
The use of technology, and in particular e-learning, in higher education is becoming increasingly popular. However, Guri-Rosenblit (2005) and Robertson (2003) propose that educational institutions should step back and reflect on critical questions regarding the use of technology in teaching and learning. The focus of Guri-Rosenblit’s article is on diverse issues of e-learning implementation in higher education, while Robertson focuses on the teacher. Both papers show that there is a change in the ‘euphoria towards eLearning’ and that a dose of techno-negativity or techno-scepticism is required so that the gap between rhetoric in the literature (with all the promises) and actual implementation can be bridged for an informed stance towards e-learning adoption.

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Technology in teaching and learning has been marketed or presented to its intended market with a lot of promises, benefits and opportunities. This technopositivist ideology has denied educators and educational researchers the much needed opportunities to explore the motives, power, rewards and sanctions of information and communication technologies (ICTs), as well as time to study the impacts of the new technologies on learning and teaching. Educational research cannot cope with the speed at which technology is advancing (Guri-Rosenblit, 2005; Robertson, 2003; Van Dusen, 1998; Watson, 2001). Indeed there has been no clear distinction between teaching with and teaching about technology and therefore the relevance of such studies has not been brought to the fore. Much of the focus is on the actual educational technology as it advances, rather than its educational functions or the effects it has on the functions of teaching and learning. The teaching profession has been affected by the implementation and use of ICT through these optimistic views, and the ever-changing teaching and learning culture (Kompf, 2005; Robertson, 2003). It is therefore necessary to pause and ask the question to the technopositivist ideologists: whether in e-learning the focus is on the ‘e’ or on the learning. The opportunities and dangers brought about by the ‘e’ in e-learning should be soberly examined. As Gandolfo (1998, p. 24) suggests:

[U]ndoubtedly, there is opportunity; the effective use of technology has the potential to improve and enhance learning. Just as assuredly there is the danger that the wrong headed adoption of various technologies apart from a sound grounding in educational research and practice will result, and indeed in some instances has already resulted, in costly additions to an already expensive enterprise without any value added. That is, technology applications must be consonant with what is known about the nature of learning and must be assessed to ensure that they are indeed enhancing learners’ experiences.

Technopositivist ideology is a ‘compulsory enthusiasm’ about technology that is being created, propagated and channelled repeatedly by the people who stand to gain either economically, socially, politically or otherwise in due disregard of the trade-offs associated with the technology to the target audience (Kompf, 2005; Robertson, 2003). In e-learning, the beneficiaries of the technopositivist market are doing so by presenting it with promises that would dismiss the judgement of many. This is aptly illustrated by Robertson (2003, pp. 284–285):

Information technology promises to deliver more (and more important) learning for every student accomplished in less time; to ensure ‘individualization’ no matter how large and diverse the class; to obliterate the differences and disadvantages associated with race, gender, and class; to vary and yet standardize the curriculum; to remove subjectivity from student evaluation; to make reporting and record keeping a snap; to keep discipline problems to a minimum; to enhance professional learning and discourse; and to transform the discredited teacher-centered classroom into that paean of pedagogy: the constructivist, student-centered classroom.

On her part, Guri-Rosenblit (2005, p. 14) argues that the proponents and marketers of e-learning present it as offering multiple uses that do not have a clear relationship with a current or future problem. She asks two ironic, vital and relevant questions: ‘If it ain’t broken, why fix it?’ and ‘Technology is the answer—but what are the questions?’ The enthusiasm to use technology for endless possibilities has led to the belief that providing
information automatically leads to meaningful knowledge creation; hence blurring and confusing the distinction between information and knowledge. This is one of the many misconceptions that emerged with e-learning.

There has been a great deal of confusion both in the marketing of and language used in the advocating of the ICTs in teaching and learning. As an example, Guri-Rosenblit (2005, p. 6) identified a list of 15 words used to describe the environment for teaching and learning with technology from various studies: ‘web-based learning, computer-mediated instruction, virtual classrooms, online education, e-learning, e-education, computer-driven interactive communication, open and distance learning, I-Campus, borderless education, cyberspace learning environments, distributed learning, flexible learning, blended learning, mobile-learning’. The list could easily be extended with many more words. Presented with this array of words, most educators are not sure of what e-learning is. Could it be synonymous to distance education? Is it just the use of online tools to enhance or enrich the learning experiences? Is it stashing the whole courseware or parts of it online for students to access? Or is it a new form of collaborative or cooperative learning? Clearly, any of these questions could be used to describe an aspect of e-learning and quite often confuse the uninformed educator.

These varied words, with as many definitions, show the degree to which e-learning is being used in different cultures and in different organisations. Unfortunately, many of these uses are based on popular assumptions and myths. While the myths that will be discussed in this paper are generic, and hence applicable to e-learning use in most cultures and organisations, the paper’s focus is on higher education, because it forms part of a larger e-learning research project among higher education institutions (HEIs) and also because of the popularity of e-learning use in HEIs. Although there is considerable confusion around the term e-learning, for the purpose of this paper it will be considered as referring to the use of electronic technology and content in teaching and learning. It includes, but is not limited to, the use of the Internet; television; streaming video and video conferencing; online text and multimedia; and mobile technologies.

From the nomenclature, also comes the crafting of the language for selling the technologies to the educators. Robertson (2003, p. 280) shows the meticulous choice of words by the marketers where ‘research’ is transformed into a ‘belief system’ and the past tense (used to communicate research findings) is substituted for the present and future tense, for example “Technology ‘can and will’ rather than ‘has and does’ ” in a quote from Apple’s comment: ‘At Apple, we believe the effective integration of technology into classroom instruction can and will result in higher levels of student achievement’. Similar quotes are available in the market and vendors of technology products for teaching and learning. This, however, is not limited to the market; some researchers have used similar quotes: ‘It is now conventional wisdom that those countries which fail to move from the industrial to the Information Society will not be able to compete in the globalised market system made possible by the new technologies’ (Mac Keogh, 2001, p. 223).

The role of research should be to question the conventional wisdom or common sense and offer plausible answers, rather than dancing to the fine tunes of popular or mass
wisdom. It is also interesting to note that Mac Keogh (2001, p. 233) concludes that ‘[w]hen issues other than costs and performance outcomes are considered, the rationale for introducing ICTs in education is more powerful’. Does this mean that irrespective of whether ICTs enhance or improve learning and teaching, it should be adopted? Or that the costs and performance outcomes of using ICTs in teaching and learning should never be questioned?

Conventional wisdom is what has brought about the current challenges, problems and stand-offs. Harpur (2006, p. 149) warns against a transformation in higher education that is based on conventional wisdom ‘if it fails to take on board the value of critical thinking’. Until there are alternatives to the conventional wisdom on e-learning, particularly on issues of social and educational constructs, uninvolved adoption of e-learning will always lead to mixed results—intended and unintended—with no clear way or guidelines on how to move towards the intended results.

In the next section, some of the myths as observed in practice, including marketing literature—and that are supported by some of the academic literature—are identified and elaborated on. The paper concludes with reiterating the need for adopting e-learning with the correct information at hand and reformulating the questions that are bound to be asked by educators during the process of e-learning adoption.

The myths
e-Learning is a saviour; its redemptive power is overreaching and every educational institution should adopt it

It is troubling and ironic when technology for teaching and learning is presented as a saviour that educators should adopt despite the failure of numerous e-learning ventures (Guri-Rosenblit, 2005). More troubling is the fact that the shortcomings and recommendations on the impact of technology on teaching and learning have not been recognised and considered by the policy makers who seem to be pushed by the innovators or providers of e-learning technologies (Watson, 2001). While the redemption power of ICTs cannot be totally dismissed, this power is not a mystic power that can work for all and in all situations. ‘Consumers of all types purchase ICT to facilitate growth and development in countless ways. At best, it is a servant of society, business, industry, and education that improves efficiency in managing and transmitting large amounts of data. At worst, it is a monopoly of virtual fashion, promising progress for self and community in the shape of products—educational and otherwise—in the general marketplace’ (Kompf, 2005, p. 220).

The question should therefore be: Is e-learning being adopted to improve teaching and learning or because it is a ‘virtual fashion’ with promising progress in the marketplace? If it is a saviour, did it come too early or too late? Education, and in particular higher education, has been in existence for ages. This brings another question to mind, namely what has higher education done wrong to require the redemptive power of technology? For a historian like Noble (1998), who has studied higher education for some time, this
trend is likely to work to the detriment of higher education, especially when the core stakeholders (professors and students) are not involved in the process.

e-Learning can replace human interaction
This fallacy that one instructor could reach many students at the same time by using e-learning was unfortunately formed by the application of the economics of distance education to e-learning (Hulsmann, 2004), together with an added hype of the constructivist notion of transferring the responsibility of learning to the learners and letting the learners take control of their learning process. Constructivism correctly holds that learners actively construct meaning by interacting with their environments and by incorporating new information into their existing knowledge and hence building on prior knowledge and skills. It allows students to develop and construct their own understanding of the learning materials and environments based upon their own knowledge and beliefs and experiences in connection to the new knowledge presented (Njenga, 2005). However, the view of ICTs as the medium through which all the learning should occur, in disregard of the cultural, social, economic and political contexts of the learners should be reconsidered. In the constructivist approach, the interaction required by meaningful learning encompasses all these contexts, and at the same time reflects the complexities of which the students need to be aware (Bowers, 1998; Guri-Rosenblit, 2005; Robertson, 2003).

The social theory factors advocated by the constructivists, merged with the promises of the technology in teaching and learning, and led to the belief that a model of learning and teaching that eradicates the human interactions can be realised. While there is a need to reform the teaching and learning pedagogies in the light of new technologies, the drastic and sweeping changes that are sometimes called for are unrealistic and untenable if any meaningful learning or teaching is to take place. In fact, what ICTs have shown is that there is a enormous need for human interaction, and there is a limit to the number of students an expert teacher can support online at any given time. This is a result, in part, of the fact that the lecturer also has to fulfil some course administrative duties previously done by the faculty and departmental administrators, and also has to ensure access to the course by students. In short, the human interaction required for meaningful learning cannot be limited to the use of computers only (Guri-Rosenblit, 2005).

However, some policy makers have been misguided or misinformed on what exactly ‘going electronic’ means. For example, recently during a high calibre e-learning meeting, e-learning Africa, the Kenyan Minister of Education was quoted to have said that many teachers would lose jobs because one teacher can reach many students using technology (Ngare, 2007). However, this did not seem to be the official position of the Kenyan government, because during its budget estimates, it provided for the employment of more teachers (Kimunya, 2007). While this is a single case, it might be a reflection of the perception within the political and policy-making circles that e-learning will indeed increase interactivity to the level of phasing out teachers and professors in educational institutions.

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e-Learning cuts the costs of education, for instance, e-learning courses are cheaper to deliver than the traditional face-to-face or distance learning.

Despite popular belief of cheaper education, e-learning is expensive! While some would argue that the price of ICTs have gone down over the past few years, the investment required to implement e-learning is still very high. It should be appreciated that the investment is not only infrastructural (the acquisition of computers and necessary hardware and software), it should also include expenditure on other related issues like training and support, maintenance, electricity, Internet access, cost of disposal of obsolete computer hardware (e-waste), the colossal cost of copyright clearing, and the cost adaptation and localisation of learning materials produced for different contexts (Guri-Rosenblit, 2005; Mac Keogh, 2001). Most of these costs are recurrent, for example, continuous training, system upgrading, licensing and maintenance. Those who see the idea of e-learning being a cheaper alternative compare it with traditional distance education, where economies of scale were used. In the distance education model, universities could use the mass production of high-quality learning material for a large market to lower the cost per student. This is not likely to happen with e-learning, as it demands more resources in terms of human capacity, as well as expensive infrastructure (Guri-Rosenblit, 2005).

From the foregoing, it is evident that e-learning is not necessarily a cheaper alternative. It is not by surprise then that the Working Group on Higher Education (WDHE) made the following recommendation concerning establishing an off-campus resource centre at the University of Namibia. ‘This innovation [e-learning] thus combines development and high-tech teaching and learning technologies. It would be of interest to someone planning a new university or an autonomous campus of an older university. This scores very high on relevance, access and comprehensive approach, but it might score low on replicability because it is not a cheap innovation’ (Working Group on Higher Education, 2004, p. 84—emphasis added).

The myth further states that investing in e-learning will ensure that HEIs save money. While the issue of savings can be true in the corporate world, it is still blurred in academia, especially because there is no clear way of linking the outcomes of students’ learning to the investment. However, from the strategic level, if all the outcomes of an e-learning investment are articulated and related to the core functions or strategic desirability—of the HEIs (teaching, learning, research, administration) and not saving money, e-learning investment can be justified—even when it does not lead directly to cost savings (Hawkins & Oblinger, 2005b).

Providing numerous courses and an abundance of information is beneficial, and can enhance learning.

This view has risen partly because of the notion that ‘more is better’ and partly because of the belief that learners would ‘construct’ knowledge by themselves if presented with information. However, as Guri-Rosenblit (2005, p. 17) pointed out, there is a greater role to be played by the providers of the learning materials in ensuring that the learners develop the necessary skills to construct knowledge: ‘Accessible information does not
turn automatically into meaningful knowledge without the assistance of a teacher or an expert. Novices, particularly at the undergraduate level, have great need of ongoing support and guidance of expert teachers. The boundless information available on the Internet might enrich the learning/teaching processes in class. By no manner of means can it replace them. In some liberal arts colleges, which integrate various components of e-learning into their classes, the teaching personnel grew to include additional experts.

The transformation of information into knowledge requires it to be adapted and contextualised to the learners’ unique environments. Any assumptions that the learners, looking for such information, are capable of doing the adaptation themselves are limiting, as very few independent learners would be able to do that. It therefore requires an expert to adapt and contextualise the information or facilitate the student’s adaptation of such information (Guri-Rosenblit, 2005; Laurillard, 2002).

The other assumption is that all knowledge can be codified and presented to the learner in electronic format. All that the learners need to do is just to unpack the knowledge and learn. Unfortunately, not all knowledge can be codified. Tacit knowledge, in particular, is extremely difficult to capture and codify, because we know more than we can tell (Polanyi, 1998). No matter how much information is provided, all aspects of learning will never be taken care of (Roberts, 2001). In this argument, a distinction should be made between tacit and explicit knowledge. While tacit knowledge is the knowledge that people have in their minds that they may not have cognisance of or may not realise the value thereof, explicit knowledge is in policy statements, procedures and instructions, drawings, white papers, published articles, papers and books (Turban, McLean & Wetherbe, 2004). Explicit knowledge in the context of commoditisation and codification differs from tacit knowledge in that it is codified in a form that makes it easier to be transferred through symbols, whereas, tacit knowledge is highly personal, embedded and difficult to formalize or codify (Nonaka & Takeuchi, 1995; Turban, McLean & Wetherbe, 2004).

ICTs should become the primary medium of learning in higher education
This is related to myth number 2 and 4, but with a strong argument on how computer technology facilitates an individual’s construction of identity, knowledge and relationships. Using these arguments, many have justified the use of computers in the classrooms. The constructivist assumptions of the use of computers in the classrooms are not being questioned which might lead to thinking that technical experts are making the decisions that affect every aspect of human life. If the professor in the classroom cannot question the use of computers, or at least, question or clarify the issues related to technological optimism, then there is a paradox in expecting the same professor to teach or facilitate knowledge building that is not biased towards the use of technology (Bowers, 1998; Guri-Rosenblit, 2005).

Although the contribution of technology in learning is important, the notion that communication technologies should become the primary medium of learning in higher
education is problematic. Nonaka and Takeuchi (1995) aptly illustrated with their ‘knowledge spiral’ that tacit knowledge are transferred via socialisation. Even though e-learning does provide some means of interaction and socialisation (e.g. discussion groups), it could hardly replace all aspects of face-to-face socialisation and the resultant transferral of knowledge.

Leisure (including playing and entertainment) and learning are separate activities
What the technology vendors have done, and probably what most players in the academic circles have not realised, is the convergence of new technologies in the targeting of the youth and Generation Y. Most of the new technologies promote a great deal of connectedness, collaboration and socialisation. They promote interoperability, immediacy and are used for a number of diverse purposes (see Prenksy, 2001a, b). Technology is often marketed as capable of doing ‘just what you want it to do’. However, there is lack of a matching educational technology to be used by the youth, or the speed at which they are being developed is not at par with what the youth expect.

Although technology is just a means to an end, academics will have to start thinking of how the curriculum and teaching methodology could be adapted by integrating technology to better meet the needs of today’s learners and their learning style. Learning could also be entertaining and could involve playing.

e-Learning will make HEIs more competitive and they must seize it or be declared institutionally redundant
Universities are working hard to attract students. ICTs, and e-learning in particular, have been presented as one factor that can make HEIs more competitive (see, for example, Turner & Stylianou, 2004; Zielinski, 2005). While e-learning may be one of the reasons students choose a particular university over another, competitiveness of universities is a complex issue and adoption (or not) of e-learning alone cannot be used to gauge or define it:

IT initiatives usually do not change an institution’s fundamental position in the market place, nor do they change its competitive stance with peers. Competitiveness is a highly complex phenomenon based on long-term perceptions, realities, and histories of quality; competitiveness is not likely to be greatly influenced by a sudden investment, whether in IT or any other area, in the short term. In reputation-based industry—with a long memory - there are few quick fixes. However, the failure to adequately invest in IT can create less competitive environment, one that is unattractive to potential students, faculty and staff. Beyond reputation, they will want IT environment that can support their study, research and work needs (Hawkins & Oblinger, 2005a, p. 12)

Traditional elite universities are often less interested in using e-learning. This does not necessarily affect their competitiveness, partly because they still stay on top due to the selective enrolment of affluent students. They have no intention to replace their classroom teaching with e-learning, but students are still competing to go to them (Guri-Rosenblit, 2005). Before making an investment in e-learning, there should be a clear understanding of how it supports the core goals of the institution in relation to
the characteristics of its potential customers and its competitive advantage over its competitors.

Establishing the infrastructure (hardware and software) in e-learning is the most difficult part

Although infrastructure is often believed to be the most important stumbling block in implementing e-learning, it has been proven that the people issue, resistance to change, is the most difficult part of implementing a new technology like e-learning. Studies on innovation adoption therefore focused more on the people issues (Ajzen, 1991; Davis, 1989; Rogers, 2003). Most of the models of diffusion and adoption of innovation try to understand or explain human perceptions, behaviour or reactions to innovations. Where they focus on the organisation, they deal with organisational culture and the readiness of the organisation to accept change and the ability to create the necessary environment (Ensminger, Surry, Porter & Wright, 2004; Rogers, 2003). There is enough evidence from studies using these models that the human issues, or the ‘soft issues’, would have a much greater effect on e-learning than the technology itself. ‘There exists more than ample evidence that in fact it is the “soft-stuff” —the human issues—that are really the most difficult. After all, technology itself has no emotions to respond to or feelings to be hurt. It’s a world of ones and zeros. Whereas we humans are one complicated species!’ (Dublin, 2004, p. 292)

Understanding the human complexities, both of the educator and learner, would therefore ensure more effective e-learning adoption, and will ensure that the difficulty of its use is reduced if not eliminated altogether.

e-Learning will see the demise of traditional campuses

As a result of the commoditisation of learning and teaching, as well as the shift of power, wealth and policy development towards commerce and trade in human capital (Noble, 1998), the view emenated that traditional campuses will slowly disappear. Commodity of knowledge is a situation where classroom teaching is converted into electronic media for sale to the market. The main characteristic of this situation is the way educational institutions, their human capital and knowledge are viewed. First, like the components of the ‘industrial revolution’ or ‘service economies’, educators are seen as creators and providers of knowledge that should be availed to masses at low or marginal costs using the electronic media (Bowers, 1998) by going through a process of codification (recording or transmission of the knowledge in the form of symbols or embodied in a tangible form). Second, professors and teachers are the source of this knowledge and the human capital of the institutions. Third, once the knowledge has been produced and codified, it could be sold on the educational market.

This view has some serious shortcomings. To begin with, it ‘challenges the Deweyan notion of education for the purpose of further education,’ and ‘transforms it into the pursuit of more adept consumerism only attainable by degree’ (Kompf, 2005, p. 213). Second, educational expenditure is no longer seen as a social investment, but rather as a cost of which the return on investment should be seen and easily calculated for the
investment to be made (Fourie, 2000; Sawyerr, 2004). Third, Roberts (2001, p. 101) explains that not all knowledge can be codified; there is tacit knowledge that is acquired through ‘informal take up of learning behaviour and procedures’ and transferred through socialising that cannot be represented explicitly in symbols. Her concluding statement probable would be sufficient to summarise this myth and its effects:

The current trend towards the codification and commodification of knowledge is being driven by a combination of economic and technological forces. This trend, if left unchecked, could lead to the development of a codified knowledge economy where the primary economic activity is the processing of information. In such an economy, the natural creative force of human kind would be in danger of being undermined by the twin forces of economic and technological rationality. To ensure prosperity in the twenty-first century, nations must engage in the creation, distribution and application of both tacit and codified knowledge. This requires an acknowledgement of the counterproductive nature of attempts to remove the ambiguity and uncertainty attached to the tacit dimension of knowledge. (Roberts, 2001, p. 113)

e-Learning can decrease absenteeism and lower dropout rates among students
Some researchers seem to have adopted an idea that originated from Apple, namely that e-learning decreases absenteeism and dropout rates (Apple Inc, n.d.), without questioning the logic behind it. For example, according to Loxley and Julien (2004, p. 228), numerous studies have been done that support this conclusion. However, almost no significant research that was done in the past, support the idea that absenteeism, attrition or dropout rates are lower among students using e-learning than among those in traditional classrooms. In fact, research by Stanz and Fourie (2002) indicated that the students that benefited the most from e-learning were the academically stronger students (higher academic performance at school and university; higher verbal reasoning capability, better discernment, and verbal IQ; higher intelligence and conscientiousness). Therefore, e-learning mostly improved the academic performance and successful completion of courses among academically stronger students. While it cannot be refuted that the myth is a possibility, the validity of the assertions of the ‘numerous studies’ will have to be examined. Eventually these research findings should be corroborated with other refereed resources. Absenteeism in e-learning is difficult to determine because of its anytime, anywhere philosophy that does not require learners to be congregated at the same place at the same time. However, dropouts could be used as some form of indication of absenteeism.

The existing research seems to conclude that attrition is higher in e-learning courses than in the traditional classroom courses. For example Diaz (2002) acknowledges that there are higher dropout rates in online education than in distance education and traditional face-to-face education. Diaz (2002) suggests that the focus should not be on the dropout rates as evidence that online education has failed, but on researching how to improve performance in online learning and at the same time researching the dropout modulating factors. Other studies on dropouts suggest that e-learning experience higher rates than traditional classrooms. For example, a study involving 453 students registered in 18 e-learning courses at a university had a dropout rate of 18% compared to 8% of that of traditional classrooms (Levy, 2007). A survey by the James
Madison University on 375 respondents put the dropout rate of e-learning courses at 26% compared to 3% reported on the same sample for classroom learning (James Madison University, 2003).

Conclusion

Ten myths from practice, marketing literature of the various vendors and academic literature have been presented that are associated with e-learning in higher education. It is acknowledged that this list is by no means exhaustive but rather a starting point for critical and informative discussions on e-learning adoption in higher education. To counter the e-learning myths, it is suggested that the following issues are carefully discussed before the adoption of e-learning decision could be made in higher education:

1. Research has shown that technopositivism has led to the adoption of inferior innovations, and to the rejection of superior ones. Therefore, technoskepticism, or ‘counterassumptions’ to the technopositivism should be theorised and investigated in the process of e-learning adoption (also refer to Abrahamson, 1991).

2. Just as books did not get rid of the teachers, e-learning is very unlikely to do so. In fact, there is a call for more human interaction in teaching and learning that could probably be achieved through technology. On the same note, it is very unlikely that the introduction of e-learning will see the demise of the physical infrastructure on campuses. As an analogy to this, the emergence of electronic content did not see the extinction of the print media.

3. While it is good to ascertain the total cost of e-learning, finding cost models to justify investments in e-learning is nearly impossible, just like it is difficult to justify or quantify the return on investment on education.

4. Academics should question the knowledge-building and transmission processes. The social and academic interests in knowledge should be well understood. This would also entail elicitation of the implications of knowledge, as well as the process of knowledge acquisition. Consequently, the circumstances in which the knowledge could be used should be considered. What is therefore needed for the successful and effective transmission and creation of knowledge using e-learning, is a ‘common understanding’ of the nature of knowledge and learning across HEIs, and a transformation of the teaching fraternity into ‘reflective practitioners’ (Laurillard, 2002).

5. Technology is just a medium, a means to achieve something and not an end in itself. Therefore, to exploit the power of the emerging technologies, efforts (in research and practice) should be geared toward designing learning materials that exploit these technologies.

6. Investment in e-learning, like any other technology, alone is unlikely to have any sustainable competitive advantage, but its value emerges from the way HEIs realign their processes and embrace changes brought about by e-learning (Peppard & Ward, 2004). That is, for competitiveness to emerge from e-learning investments, e-learning should be used ‘to leverage intangible, complementary human and business resources’ (Powell & Dent-Micallef, 1997, p. 375).

7. Studies have shown that most lecturers are constrained by time, motivation, and lack of cooperation during the establishment of e-learning, which, coupled with
poor or lack of compensation, lead to the failure of e-learning establishments (Mihhailova, 2006). To counter this, the proponents should engage all stakeholders, while at the same time ensure that there is sufficient training, support and infrastructure, as well as proper compensation for lecturers.

8. Finally, mechanisms to deal with high dropout rates in e-learning should be developed. This might include looking for ways of reaching out to and helping weaker students, improving overall learner performance and experience in e-learning, and researching any other factors that might mitigate or modulate dropouts in e-learning courses.

The all-inclusive and constructive dialogue emanating from discussing these issues could demystify the e-learning myths and at the same time improve the chances of successful e-learning adoption in higher education.

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