# Digital Learning Environment in the Philippines: Perspective From The U.P. Open University

**By**

**Prof. Felix Librero**

Presented at the Symposium on Digital Learning, Keio University, Japan, 11-13 December 2004.
Prof. Librero is Chancellor, University of the Philippines Open University (UPOU), Los Baños, Laguna, Philippines. Email: flibrero@upou.org; Website: www.upou.org.

## Introduction

Like in many parts of the developing world, digital learning in the Philippines is of very recent vintage, full of problems, brimming with exciting prospects, a growing population of enthusiasts, and a continuing arrogance of the non-believers whose number, we are happy to report, is getting smaller. Yet, this experience is hardly enough basis for making final decisions as to which directions we should go. We have, however, detected certain problems and prospects that we believe could lead to some kind of a trend which we might want to assess further to determine how these might influence the development of digital learning in the country.

To highlight these problems and prospects, therefore, is what this paper intends to do.

By way of providing backgrounder for this presentation, I wish to give a very brief description of the University of the Philippines Open University (UPOU) as an institution of distance education in the Philippines, and its limited experience in digital learning.

### *The UP Open University*

The University of the Philippines System is comprised of seven (7) constituent universities and the Open University (UPOU) is the fifth. It was established by act of the U.P. Board of Regents on 23 February 1995. Mandated to deliver academic degree programs in the distance mode, the UPOU is acknowledged as the cyber campus of the University of the Philippines System, now known in the league of open universities in the Asian region, and leading in the formulation and testing of cutting edge innovations in the delivery of quality education services in the distance mode in the Philippines, with an apt slogan, *Lifelong Learning for Every Filipino, Lifelong Learning for All.*

The UPOU's foundation and development were influenced by a series of events starting with the first school on the air broadcast originating from the U.P. Los Baños (UPLB) in 1967. This was followed by the testing and implementation of a project titled *Science Teaching Using Distance Instruction (STUDI)* in 1984. As a result of the successful STUDI, a formal degree program called the Diploma in Science Teaching was instituted by UPLB in 1988. In 1991, the President of the University of the Philippines System organized the U.P. Distance Education Program. Then on 23 February 1995, the U.P. Board of Regents approved the establishment of the UPOU as the 5th Autonomous University of the U.P. System. The Offices of the Chancellor, Vice Chancellor for Academic Affairs, Vice Chancellor for Finance and Administration, and five faculties were created: Faculty of Education, Faculty of Health Sciences, Faculty of Management Science, Faculty of Social Sciences and Humanities, Faculty of Science and Technology. A couple of years later in 1997, the Office of the Vice Chancellor for Student Support Services was created.

In 1999, the UPOU was reorganized and the Office of the Vice Chancellor for Research and Development was created, together with the Audio Visual Learning Laboratory (AVTELL) and the Online Teaching and Learning Laboratory (ONTELL). In January 2004, a second reorganization was implemented, this time with only two vice chancellors and three faculties. The Office of the Vice Chancellor for Academic Affairs and the Office of the Vice Chancellor for Finance and Administration were retained. The five faculties were reduced to only three, as follows: Faculty of Education (FED), Faculty of Information and Communications Studies (FICS), and the Faculty of Management and Development Studies (FMDS). And the AVTELL and ONTELL were merged to form the Multimedia Center (MC). Also, a Management Information Systems Office (MISO), as well as the Office of the Legal Counsel (OLC) were created.

The UPOU was designed to provide the mechanism for a wider access to U.P. education for more Filipinos without watering down the quality of education that it delivers. It was felt that U.P. was in the best position to offer instruction through distance education in the country given its top caliber human resources, expertise, and experience.

There are 20 academic degree programs offered by the UPOU at present, broken down as follows: one undergraduate program, nine post-baccalaureate Diploma programs, nine Master's programs, and one PhD program. Some of these are ladderized. The specific programs are as follows:

Associate in Arts (AA)
Diploma in Computer Sciences (DCS)
Diploma in Environment & Natural Resources Management (DENRM)
Diploma in Language Studies for Teachers (DLST)
Diploma in Social Studies Education (DSSE)
Diploma in Mathematics Teaching (DMT)
Diploma in Research & Development Management (DR&DM)
Diploma in Science Teaching (DST)

Diploma in Social Work (DSW)
Diploma in Women In Development (DWD)
Master of Arts in Education (MAEd)
Master of Arts in Nursing (MAN)
Master in Development Communication (MDC)
Master of Environment & Natural Resources Management (MENRM)
Master of Hospital Administration (MHA)
Master of Information Systems (MIS)
Master of Public Health (MPH)
Master of Public Management (MPM)
Master of Social Work (MSW)
PhD in Education (PhD)

The UPOU has been designated by the Philippines' Commission on Higher Education (CHED) as the national center of excellence for open and distance learning, and by the Commission on Information and Communications Technology (CICT) as the Philippines' e-Learning Competency Center. It is also completing this year its second and last three-year term as member of the Executive Board of the Asian Association of Open Universities (AAOU). And the UPOU Chancellor also sits on the Governing Board of the Southeast Asian Ministers of Education Council Regional Center for Open Learning (SEAMOLEC).

## Digital Learning: A Perspective

It is an interesting, if strange, phenomenon that of more than 10 million entries in the Internet not a single article has even tried to provide a catch-all definition of digital learning. There are many that try to describe what it is. This situation is probably best demonstrated by Louis Bonder of the University of Amsterdam when, in a lecture before the scientific staff of that university's Institute of Phonetic Sciences in 2001, he asked: digital learning, or what do we call it?

However, there is an apparent unanimity among experts worldwide that digital learning is learning with computers, that is why it is digital. It is also a component of the e-Learning phenomenon. Everybody in the field of ICT seems to know exactly what is meant by digital learning, and so they have avoided providing formal definitions. Maybe they are aware that frequently definitions generally provide limitations and we would be better-off without these limitations. It is much like defining the flu by its symptoms, and we know that not all the symptoms always show up when we contract flu. So, we go by descriptions of what are generally accepted components and processes that characterize digital learning.

The main characteristics of digital learning, according to Bonder (2001), include the following:

Digitization of the course material;
Delivered independent of learner's location;
Learner studies at his own pace;
It is asynchronous;
It is interactive;
It is collaborative learning.

These characteristics of digital learning actually reflect the features of distance education. Digitization of course material, by the way, raises the fundamental question of whether or not digitization would affect learning style. Would there be any difference at all in learning analogue information as opposed to learning digital information? That, of course, is a question for the researchers to answer.

The infrastructure of digital learning has three major components: content, communication system, and content management system.

Content is the most basic of these three. This is what learners are after. This is what they learn. This is what they need. The communication system is the channel through which content is delivered. For digital learning this would refer to the combination of human, computers, and telecommunications infrastructure. Content management system refers to the platform that enables us to manage content and delivery mechanisms to facilitate learning. And there are a lot of these platforms today. I shall not discuss them as you are most likely more familiar with them than I am.

## The UP Open University Experience

### *Digital Learning at the UP Open University*

The UPOU's limited experience in digital learning started with the offering in 2001 of two nonformal courses titled *Introduction to e-Commerce* and *Filipiniana Online.* The course *Filipiniana Online* is now offered as a formal three credit course on Philippine culture and arts. In 2001 also, the UPOU introduced its online tutorials, where tutors and students interacted mainly through electronic discussions. Today, all courses offered each semester have online tutorial sections for students who do not find the time to attend face-to-face tutorials in our learning centers. Increasingly, students are gravitating to online tutorials such that in this current semester (November 2004 to March 2005) about 80 percent of our students are on online tutorials.

The UP Open University made a decision to introduce online tutorials not because we had perfected use of the Internet as tutorial tool but largely due to problems of sustaining face-to-face tutorials which were becoming rather expensive and cumbersome to manage

given increasing number of students dispersed throughout the Philippines, an archipelagic country of more than 7,000 islands.

I was warned from the beginning by some of my colleagues and friends that there would be problems with online tutorials and I thought that those were simply presumptions. I acknowledged their warnings but insisted that we would not know whether or not online tutorials would be problematic until we actually engaged in online tutorials. We conducted familiarization and skills training for our faculty on the use of the Integrated Virtual Learning Environment (IVLE) platform by arrangement with the National University of Singapore, in tutorial techniques, and use of the Internet as tutorial tool.

When we implemented our decision to do online tutorials we did have a lot problems, but that was the only time when we actually knew that they were real problems because we were experiencing them. We had problems with the platform we were using, we had problems with our tutors not having a good handle of the platform as well as online tutorial techniques, we had problems with students who were not confident with their ability to use the Internet, and we had problems with our faculty not being familiar with the nuances of online tutorials. In other words, we had all sorts of problems, both technical and attitudinal.

So we had to conduct more extensive training for both our faculty and students simultaneously. Luckily, we are now past that point. Of course, if we were to use another platform we will have some difficulty again because our faculty, staff, and students have mastered the use of the IVLE platform and are not eager at this time to migrate to another platform.

### *Online Teaching and Learning Course*

In the Summer session of last year (2003), the UPOU offered for the first time a nonformal course titled *Online Teaching and Learning (OTL)* fully online. As a test course, it attracted 95 faculty members from the University of the Philippines System and other public and private universities in Manila. Of course, there was high attrition rate but we found that even the senior professors of UP enjoyed the course may be because it was new to them. The general observation was that an online course was very challenging but enjoyable.

After the success of OTL as a nonformal course, it was transformed into a formal 3-unit credit course now offered by UPOU's Faculty of Education. This course shall become part of the graduate program, Master in Distance Education, being prepared by the UPOU. As a formal credit course, OTL has had good enrollment in its first two semesters: second semester 2003-2004, 48; first semester 2004-2005, 61. All those enrolled in this course are faculty members from various universities in the country, or those intending to try online teaching.

The UPOU is now in the process of transforming its other courses to be offered online or stored in CD-ROMs for distribution to its students.

## Problems and Prospects of Digital Learning in the Philippines

### *Technology vs Mindset*

I am tempted to refer to this issue as the digital learning divide, but we already have so many divides. So let me just explain it briefly. We have here two sets of problems, one technological, the other psycho-intellectual, or what I call mindset. In the field of education, somehow the technical aspects always come before the content aspects. That is to say, the engineers have always told the educationists, "here is a piece of gadget, why don't you use it in your teaching activities?" I have always believed that it should be the educationists who should tell the engineer, "Mr. Engineer, I have here a concept that I want my students to learn quickly. Why don't you develop for me a device that will facilitate the learning of this concept?" That has never happened as yet. Still, we have all these technologies that we can use but many of our decision makers are not providing enough opportunities for our teachers to use them so they can become more effective and efficient facilitators of learning.

The more serious issue is changing of mindset. Most of our teachers, policy makers and decision makers are still steeped in the conventional learning norm, that is teacher-centered learning. As long as they remain convinced that we should not shift to a learner-centered mindset, digital learning will simply remain a good idea. Then, of course, the crucial hurdle for both the teacher and the learner is the migration from a teacher-centered environment to a learner-centered environment. This is not always the fault of the teacher, by the way. Sometimes, it is the fault of the learner because he is not prepared to take responsibility for his own learning, which is a given in most digital learning environments.

The Philippines may have been reported as the SMS or texting capital of the world, but in general technology has really outpaced the local mindset particularly in the field of education. What makes this rather crucial is the fact that learners in the Philippines are widely dispersed over thousands of islands that can only be served appropriately through extensive telecommunications infrastructure and distance education. The infrastructure is there and improving, but people in the countryside still tend to put higher premium on conventional schooling. However, schools are clustered largely in urban centers and there are very few if at all in rural areas. In this context, it is wise to consider that there is a limit to the capacity of universities to expand physically to accommodate increasing student population particularly from the countryside, and there is as well a limit to the willingness of government to subsidize the physical expansion of universities.

Distance education and digital learning may actually be the solutions to the problems of ineffective and inefficient delivery of quality education to a population widely dispersed over thousands of islands. But, clearly, there is a need for policy makers, decision makers, teachers, and learners to change their mindsets from a teacher-centered learning environment to a learner-centered learning environment. In the Philippines, we are achieving this but rather slowly. As everyone would agree, changing mindsets is not as easy as changing pieces of equipment.

In the Philippines we are at a digital and e-Learning crossroads where we have to hurdle three major issues.

First, we are wading through a pedagogical gap, the main feature of which is the reluctant acceptance of distance education by many higher education administrators and professors as a viable alternative system of delivering quality education services. We need to be more creative in the application of methods and techniques of distance learning so that we can resolve the issues that non-believers of distance education are so concerned about such as the maintenance of standards and providing social interaction opportunities for learners.

Second, we have to contend with a technological gap. One thing is sure, though: many institutions and experts cannot seem to have enough to the gadgetry offered by rapid technological advancements. Unfortunately, either the education providers cannot afford the technology or the learners do not have easy access to it. We must use technology to the extent that it is accessible at reasonable costs. In fact, we have to revisit old technologies especially if they still are able to provide solutions to our problems.

Finally, we have to deal squarely with the fact that it is difficult to migrate from teacher-controlled learning environment to learner-controlled environment. This may be the most crucial hurdle. We may not be able to overcome this anomaly overnight but as we try to solve it we should further quicken our pace in migrating from the traditional learning environment within the confines of the physical classroom to learning in the virtual classroom.

### *Access to Technology*

There are two levels of access here: access to technology as hardware and access to technology as software. The former, generally referring to pieces of equipment and facilities, can easily be solved with appropriate allocation of financial resources, but the second is problematic. The software, i.e. computer program, itself may be easily affordable, but the associated issues involved are the problem. These are access to the software in terms of applicability and user friendliness in the context of the intended user's circumstances. For example, where needed, are the software gender sensitive? What does it take to use a particular software so that one can access content? What skills are necessary and how might these skills be obtained? And there are lots more questions that need answers.

There is, however, every reason to be hopeful given the efforts of government to improve the telecommunications and related infrastructure in preparation for a massive digital learning movement in the countryside. It is good sign that most higher educational institutions in the country, particularly those situated outside of the centers of population such as MetroManila, and the cities of Davao, Cebu, and Iloilo are fast getting connected to the Internet. In fact, some of these institutions are more prepared for digital learning than many in the centers of population mainly because they have been, in recent years, the focus of technical assistance from more advanced countries like Japan, Europe, and the United States.

### *Expertise Factor*

In the Philippines as elsewhere, the people currently lording it over in the digital learning sector are the computer experts and some subject matter experts who are very good in computers. The approach, as in the past, has been to obtain the hardware before the software, and develop the human resource later.

What we need today are specialists who are experts in hardware, software, and content. These people, of course, are hard to find. This is the reason why there is an urgent need for human resource development effort in this area.

There is an associated issue here, which has something to do with people having specific skills to use for specific technologies. When we introduce a new technology we naturally also provide people with new skills so that they can use the technology. We call this retooling, but some people claim that the term retooling sounds too mechanistic. It is as if technology dehumanizes people. If we do not like the term retooling, then what do we call it? Perhaps we can call it re-skilling (which is providing an individual a new skill), but re-skilling sounds too manipulative. Now, what do we do with people who refuse to be retooled, or who can not be re-skilled? There is a very old technology that fits this perfectly. It is called RETIRING.

There is an increasing number of opportunities for training of human resources in the use of ICTs and upgrading of skills in computerization and use of the Internet. Human resource development and upgrading is one of the priority areas of the Commission on Higher Education. It is for this reason that the UPOU has been co-opted as one of the trainer institutions in the field of computer science and information systems.

### *Funding Squeeze*

One major concern that I have as an administrator of a distance education institution is the mad scramble for the use of top-of-the-line software and hardware. Changing your software, for example, does not mean simply changing the software. It means, for the

most part, redesign of content and retooling users of the new software. This is hardly cheap, and my institution cannot afford it.

An internal policy that we follow in the UP Open University is that we try to formulate new ways of using existing technology that is already accessible to our potential learners. For example, in the Philippines cellular phones are quite popular. Even the household helps, drivers, market vendors, beauty parlor attendants, manicurists, and the like do have their own cellular phones. The cellular phone is common piece of hardware even in the rural areas. So we asked ourselves, "how can we use the cellular phone to educate the public on significant subjects?"

We decided to introduce our m-Learning program. Other open universities in other countries use m-Learning to provide information about their institutions and promote their programs, but at the UP Open University we are trying to use the cellular phone to deliver lessons. Today, we have small modules on various topics such as health, mathematics, and English. We are providing lessons for learners on the go. This is how it works.

If you have nothing to do while on the bus, taxi, or railway transit, you might just want to try and dial 700-UPOU (700-8768). Automatically, you get a response from the telecommunications provider, giving you a set of topics to choose from. Punch "mLearning" and you are given a set of topics to choose from. For instance, if you choose "Lifestyle Check", you get a set of diagnostic questions that you must answer. You also get your score after the diagnostic test. You will also get a text message urging you to buy a small module from the UP Open University if you are interested to know more about the subject matter.

If you complete and pass the diagnostic tests for a set of modules, let us say in the health science sector, you may wish to request for a certification and the UP Open University will certify that you have completed and passed a diagnostic test on common health practices, or mental math, or English spelling, or some other topics. This program was designed to be for fun and at the same time to provide lessons and practical knowledge to the general public.

We are now in a process of evaluating this program, trying to determine if it really has any impact at all on the general public. The International Development Research Centre (IDRC) of Canada has included in its ICT program the testing of this technology in the Asian region in the next year.

Funding remains a problem, though. However, the private sector has become more active in the development of human resources as well as in the improvement of the physical infrastructure for telecommunications and computerization in most parts of the country. For example, practically all the ISPs in the country are private providers. The only government service provider is the Philippine Research, Education, and Government Information Network (PREGINET), which provides, at the moment, free service to educational institution such as the UPOU. Eventually, of course, there will be some fee

for this service but at least this transition period provides us some opportunities to put in place a system of revenue generation in support of a digital learning program in the future.

***Policy Issues***

In the Philippines there are no laws governing distance education, much less digital learning. However, the Commission on Higher Education, through its Technical Committee of Reviewers for Open and Distance Education, has put in place a national policy framework for distance education.

The policy environment for e-Learning in the Philippines is not clear. What is clear at this time, according to the policy framework formulated by CHED's Technical Committee of Reviewers for the Delivery on Open Learning and Distance Education, is that government regulation is not a sufficient condition for promoting quality online learning for the following reasons:

1. *Government is severely under-resourced and unable to efficiently enforce minimum standards;*

2. *Technology advances occur at such a speed that updating government policies fast enough to cope with rapid change can be unwieldy;*

3. *Too stringent regulation can stifle the creative energies of higher education institutions, which is critical to tap for local e-learning to flourish and for such programs to gain regional and international appeal;*

4. *regulation, if not appreciated in the context of more fundamental principles of public good and professional excellence ("the spirit of the rule") only breeds school behaviors, which tend to circumvent the "letter of the rule"; and*

5. *By its nature, government regulations focus on minimum acceptable standards – ensuring the avoidance of public harm, which does not necessarily promote excellence in such programs.*

In general, the national policy environment for digital learning in the Philippines is encouraging. For example, the national government has made it a policy to promote the use of ICTs in the education sector. This is clearly the intention with the establishment of the Commission on Information and Communications Technology (CICT) that is mandated to lead in the application of ICTs in the development efforts of the country, including in education. The CICT has demonstrated in its most recent decisions that it will strengthen its support to building the infrastructure needed to promote digital learning. For instance, it shall be funding the infrastructure development plan for the Open Academy for Philippine Agriculture, the most ambitious and massive application of

information and communications technology in support of a sectoral development program – agriculture – through continuing education.

Given the efforts of the CHED to improve the policy environment for distance education including e-Learning in the country, and with the UPOU accorded the leadership role in the development of distance education in the country, we are hoping to resolve the rather disorganized efforts of various institutions at developing digital learning programs.

The Technical Committee of Reviewers of CHED also suggest the following additional institutional elements to be included in the policy framework:

1. A system of voluntary peer accreditation;

2. Widely available public information on the recognition and accreditation status of programs; and

3. A professional association of e-Learning practitioners to promote ethical and sound practice.

## Concluding Statement

Digital learning in the Philippines is of very recent vintage having been introduced in formal schooling on an experimental basis no more than three years ago. Today, more and more formal credit courses are offered fully online by Philippine educational institutions. In most of the institutions that offer courses online (largely experimental), we are experiencing a lot of labor pains ranging from limited hardware infrastructure to what I would call amateurish instructional design.

The interest in digital learning, however, has been increasing rapidly during this year. If plans do not miscarry, at the UPOU we shall have at least 75 percent of our courses transformed into multimedia formats and delivered both traditionally and online in the next three years.

###

## References


Baker, Chris. Through the pipeline: the ABC of digital learning (a working paper). http://www.monash.edu.au/groups/flt/1999/NewPapers/chris-baker.pdf

Boettcher, Judith V. 2004. Designing for learning: the pursuit of well-structured content. http://www.campus-technology.com/article.asp?id=7092

Bonder, Louis J. 2001. A digital learning example in phonetics. http://fonsg3.let.uva.nl/Proceedings/Proceedings24/LouisBonder.pdf

Librero, Felix. 2003. E-Learning in a digital environment: issues and directions in Philippine education. Paper presented in the 6th Governing Board Meeting and Seminar, SEAMEO Regional Center for Open Learning, Sultan Idris University of Education, Tanjong Malim, Malaysia, 22-25 September 2003.

Librero, Felix. 2002. Bringing quality education right at the doorsteps of the Filipino learner: the UP Open University experience. Paper presented at the International Seminar on Quality and Equity in Education in Southeast Asia. University of Muhammadiyah Surakarta, Solo, Central Java, Indonesia.

McKenzie, Jamie. 2004. Learning digitally. http://www.fno.org/nov98/digital.html

Natividad, Josefina N. 2003. Government initiatives for e-learning: updates on policy directions for e-learning at the tertiary level. Paper read at the 2nd National e-Learning Conference, Manila Hotel, 7-8 August 2003.

Policy Framework and Future Directions for e-Learning in the Philippines. Technical Committee of Reviewers for the Delivery on Open Learning and Distance Education, Commission on Higher Education, Republic of the Philippines.

Songer, Nancy B. 2004. Realizing the learning in digital learning. http://www.pkal.org/template2.cfm?c_id=337

Updated Policies and Guidelines on Open Learning and Distance Education. Commission on Higher Education Memorandum Order No. 35, Series of 2000.