wojde.org
International Women Online Journal of Distance Education
ISSN: 2147-0367

January 2015

Volume 4
Number 1

http://www.wojde.org

International Women Online Journal of Distance Education
January, 2015 Volume: 4 Issue: 1 Editorial Board ISSN: 2147-0367

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**This Issue of intWOJDE is dedicated to**
**Prof. Dr. Türkan SAYLAN**
**(1935-2009)**

**CONTENTS**

**SUCCESSED STORIES**

**Dear intWOJDE Readers,**

**Welcome to the Volume 4 Number: 1 of intWOJDE;**

**In this issue, 5 articles of 10 authors from 5 different countries around the world have been published. These published articles are arrived to the intWOJDE from Bangladesh, India, Malaysia, South Africa and Turkey.**

**The 1st article is join study which conducted by Sabina YEASMIN from Bangladesh Open University and C. R. K. MURTHY from Indira Gandhi National Open University, from India, Eheir aricle is titled as "Study Habits and Demographic Characteristics Learners' Attributes And Perceptıons of Effectiveness Of Gender-Sensitive and Responsıve Texts and Tutorials of Open School of Bangladesh Open University" They mentioned in their article that Open School (OS) of the Bangladesh Open University (BOU) has passed more than an era in imparting school education at par to the formal education using mainly self-learning materials (SLMs) and face-to-face (f2f) tutorial sessions at the weakened near to the learners' place. Both male and female have been the learners of the OS programs named Secondary School Certificate (SSC) for grade-9-10 and Higher Secondary Certificate (HSC) for grade 11-12. There have always been questions; do tutors provide a gender-sensitive learning environment -are girls encouraged to answer questions, do the texts present stereotypical images of girls? Their paper aim to study on this issue. Selected stakeholders including learners are interviewed as per the objectives of the study. Subject group of this study is learners and tutors and the control group is non-user of OS SLMs. In order to study the attributes and perceptions of the learners on the effectiveness of gender sensitive and responsive texts, a questionnaire is developed. A five-point Likert scale of 1 to 5, ranging from 'strongly agree' and 'strongly disagree' as anchoring points are used for main items.**

**In the 2nd article titled as "The Importance of Distance Education in Nursing", written by Belgin BOZ YUKSEKDAG, Anadolu University, College of Open Education, Testing Research Unit, Eskisehir, Turkey. She emphasize in her study their importance of the nursing education and the reason of its essence arises from social requirements is a practical discipline. It requires knowledge and skills. This knowledge and skills must be updated with developments in the health field. However, because of their living conditions, nurses cannot continue the formal education. Distance nursing programs provide flexibility to them. In this study will be handed the importance of distance education for nursing and the attitudes of nurses towards distance nursing programs.**

**The 3rd article is join study from South Africa, on "The Impact of Technology in Breaking Barriers Towards Women's Liberation in Open Distance Learning", written by Anniekie NNDOWISENI RAVHUDZULO from University of South Africa and Unisa, South Africa. This study revealed how technology has brought about unique changes in education as a whole, how people communicate; research, preference and social interaction. It presents before the society a growing recognition of the recent and wider possibilities in the new era.**

**The proposed study identified the impact of technology in breaking barriers towards women's liberation in Open Distance Learning (ODL) to contribute towards enhancing women empowerment. The two concepts Open Distance Learning (ODL) and Distance Education will interchangeably used in this research because the participants are furthering studies through ODL and DE (ODL/DE). This paper is qualitative research in nature and an auto-ethnographic approach focused on questions pertaining to how technology breaks barriers towards women's liberation, perseverance, how women integrate the ODL/DE environment into their personal life. The findings suggested that technology improved and liberated women's livelihoods in many respects because of their**

**perseverance and taking extra online modules through ODL/DE. Findings suggested that technology contribute towards enhancing women's empowerment and liberation in. Therefore, women empowerment is an active multi-dimensional process which empowers women to realize their full uniqueness and powers in all walks of life. The paper concludes by recommending that women should be able to live a life without limits and see life in a better perspective.**

**In The second part of the journal we would like republish recently published articles around the world for to inform and aware intWOJDE readers about old published articles somewhere.**

**The 4th article is from India. Written on "Attitude of Women Learners Towards Distance Education: A Comparative Analysis" by Suja Stanley GEORGE, from Subharti Medical College, Swami Vivekanand Subharti University, Meerut, Uttar Pradesh, India. The study was conducted in Uttar Pradesh's Meerut district and data were collected from 43 women distance learners of Indira Gandhi National Open University (IGNOU) and 77 women distance learners of Swami Vivekanand Subharti University (SVSU) following purposive sampling method. The comparative attitude level was measured in eight sub-areas of distance learning viz., general, admission procedure, self learning material (SLM), multimedia, assignments, counseling, study centers and evaluation system. The findings revealed that women distance learners have positive attitude towards distance learning and no significant difference was found between the overall attitudes of learners from both universities. However, the IGNOU learners exhibited more favorable attitude than SVSU learners on five sub-areas of attitude towards distance learning namely admission procedure, assignments, counseling, study centre and evaluation system with a significant difference only in assignments area (P<0.05). The related implications for distance education are discussed.carry out their own business.**

**The 5th article is from Malaysia and published before in TOJDE-Turkish Online journal of Distance education. The aim of republishig belongs to reach intWOJDE readers after a years again. It is titled as "THE SUPPORT SYSTEM IN DISTANCE EDUCATION: Factors Affecting Achievements Among Women Learners", written by Hanafi ATAN, Zuraidah A. RAHMAN, Omar MAJID, Noraida A. GHANI and Rozhan M IDRUS from School of Distance Education, Universiti Sains Malaysia, MALAYSIA.**

**At the first they emphasized that distance education has the potential to contribute to the enhancement of women's development by overcoming not only temporal and spatial barriers but familial commitments as well. It brings education to their home and allows women to learn at their individual pace, seek skills for individual development and at the same time, enables them to fulfill family responsibilities. An important element of distance education is the provision of the learner support system that provides students the access to learning resources and means of communication that would facilitate the array of educational activities and exposure to various other guidance and advisories.**

**This paper reports on the study undertaken to elucidate the dimensions of the support system provided by the School of Distance Education (SDE), Universiti Saints Malaysia (USM) to its women learners that would have significant impact on their achievements. The factorial analysis conducted revealed that the role of the faculty is the main contributing factor affecting these achievements, followed by the provision of the intensive course, the electronic portal, video conferencing and to a much lesser extent, the existence of the regional centers. The implications of this study are discussed with the view of improving the support system provided by the institution and the need to put into action the necessary strategies to further improve the achievement of the women learners.**

**As you notice we created a "re-published Section in our journal coincidently for to inform and benefit our readers from earlier researches and published studies or reports which are related our field by receiving their official permission and giving its original cite in the literature. Here, in this issue I would like announce and to give a place two the latest, very well designed and published reports which are permitted officially written by re-publish in our medium for to inform our readers directly. These are entitled as "E-learning market report" and "Mobile Learning Report", prepared and published by Docebo as the source of the documents, linking homepage as (www.docebo.com).**

**In the third "Success Stories" section we tried to give a place for LOUANN POIRIER story who was cancer when she graduated from Athabasca Unicersiy, Canada, 2014.**

**Dear intWOJDE readers to receive further information and to send your suggests and recommendations and remarks, or to submit articles for consideration, please contact int.WOJDE Secretariat at the below address or e-mail to us at intwojde@gmail.com**

**Hope to stay in touch and wishing to meet in our next Issue on 1st of April, 2015.**
**International Women Online Journal of Distance Education, Volume: 4 Issue: 2.**

**Cordially,**
**Prof. Dr. Emine DEMIRAY**
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International Women Online Journal of Distance Education

January, 2015 Volume: 4 Issue: 1 Article: 01 ISSN: 2147-0367

# STUDY HABITS AND DEMOGRAPHIC CHARACTERSTICS LEARNERS' ATTRIBUTES AND PERCEPTIONS OF EFFECTIVENESS OF GENDER-SENSITIVE AND RESPONSIVE TEXTS AND TUTORIALS OF OPEN SCHOOL OF BANGLADESH OPEN UNIVERSITY

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**Professor C. R. K. MURTHY**
**Indira Gandhi National Open University, INDIA**

## ABSTRACT

**Open School (OS) of the Bangladesh Open University (BOU) has passed more than an era in imparting school education at par to the formal education using mainly self-learning materials (SLMs) and face-to-face (f2f) tutorial sessions at the weakened near to the learners' place. Both male and female have been the learners of the OS programs named Secondary School Certificate (SSC) for grade-9-10 and Higher Secondary Certificate (HSC) for grade 11-12. There have always been questions; do tutors provide a gender-sensitive learning environment -are girls encouraged to answer questions, do the texts present stereotypical images of girls? This paper aims to study on this issue. Selected stakeholders including learners are interviewed as per the objectives of the study. Subject group of this study is learners and tutors and the control group is non-user of OS SLMs. The questionnaires and interviews are taken place based on the various variables inherited in the research questions, and also be matched with the policy and status analysis so as to formulate the framework of gender sensitive and responsive OS programs. In order to study the attributes and perceptions of the learners on the effectiveness of gender sensitive and responsive texts, a questionnaire is developed. A five-point Likert scale of 1 to 5, ranging from 'strongly agree' and 'strongly disagree' as anchoring points are used for main items.**

**Keywords: SLM, f2f, tutor, learner, gender, learning, stereotype etc.**

## INTRODUCTION

**Bangladesh Open University (BOU) offers three pre-University programmes – Junior School Certificate (JSC) for Grade: 6-8, Secondary School Certificate (SSC) for Grade: 9-10 and Higher Secondary Certificate (HSC) for Grade: 11-12 (Rahman *et al,* 2010). There may be question- why BOU runs pre-University programmes along with the graduate and post-graduate programmes as core activities.**

**The answer lies in its prime objective that is to transform the country's vast human resources into an educated and trained workforce, by extending to them a wide range of formal and non-formal academic programmes. BOU started its operation through a project under loan arrangement with the Asian Development Bank (ADB). The project profile describes:**

> ***"potential beneficiaries will be the middle and lower class rural youths with primary and secondary levels of education, untrained teachers at primary and secondary schools, rural women including housewives, extension agencies in the field of agriculture, rural development, family planning, health and those***

***professional groups who upgrade their skills for professional development. The rural disadvantaged youths who have very limited access to conventional education will be the special beneficiaries of the BOU establishment project. The NGOs working in the field of environmental stabilization, health care, skills training, functional literacy etc. will also be the potential target beneficiaries" [ADB, 1993].***

**Therefore, the Open School (OS) makes the provision available to women in particular and always tries to have the answers the following questions:**

**Is the curriculum gender-sensitive?**
**Are the SLMs gender-responsive?**
**Are the broadcasted audio-video materials representing both genders?**
**Are the tutorial sessions gender-friendly?**

**The last one is very important; former three are normally checked carefully by the OS, but tutorial sessions are conducted by different tutors of different background. Therefore, their attitude may differ from each other what may in turn create trouble to the female learners to stay in the programme up to the completion. Nnaka and Anaekwe (2005) states that development of gender unfriendly creates problems in motivating a particular gender is also able to uncomforting the other in the sessions. This study addresses overall situation of gender friendliness of tutorial sessions of the OS prorgammes of the BOU.**

## OBJECTIVES

**The objective of this study is to evaluate gender-friendly behavior of tutors in tutorial sessions of the BOU OS programmes. This also achieves the following objectives:**

- **To seek out learners' view on using SLM by the tutors at the session are gender friendly or not;**
- **To analyze the environment of the session room with particular emphasis on the friendliness for both genders;**
- **To enquire about the supplementary materials what tutors use in the sessions are gender friendly or not; and**
- **To find out that group works in the tutorials are implemented considering the gender-friendliness atmosphere.**

## METHODOLOGY

**Most of the researches in open and distance learning (ODL) are in the form of popular article where the processes are described. But, presently, the distance education (DE) research has by far been experimental method which involves extensive interviewing of learners.**

**This research sought to allow the participants' responses defined the nature of the finding through developing themes. Two in-tutorial sessions surveys of BOU OS programmes' learners (N=80) – one at the city and two at the rural area- assesses perceptions and attitudes of learner-tutor interaction with particular emphasis on gender friendliness.**

**Both quantitative and qualitative approaches and parametric and non-parametric analysis has been used for the current study. The research instrument for the study**

**is a five-point Likert-type scale questionnaire, titled gender-fairness of tutorial session's questionnaire (Annex A).**

**The questionnaire was administered to learners at the tutorial sessions. Learners were requested to indicate the extent of their perception of gender-fairness of their tutors on each item. Scoring on the scale was done as follows; strongly agreed (5) agreed (4), undecided (3) disagree (2) and strongly disagree (1) for statements. The researcher also discussed the matter with the learners at tutorial centers who are attended in the tutorial sessions of the programme.**

**The research was conducted during the participants' second year of study. The questionnaire also incorporated some statements to collect the background information. The background of the OS learners is of very similar in nature (Yeasmin & Murthy, 2010).**

**Therefore, the sample size has been limited with compare to the large population. It is assumed that because of same culture and socio-economic background of the learners, small sample would represent the large population.**

**The researcher positioned herself as one of the faculty members of the BOU OS; she is, in any case, conceded to listen to learners' queries up to a certain limit. At the time of interview, it was found that learners were making programme queries related to the research questions right from the onset of the research.**

## ADMINISTRATION OF THE TUTORIAL SERVICES

**BOU's 6 academic schools run nearly 20 programmes and 10 administrative divisions support for successful implementation of these programmes. Amongst the divisions, the Student Support Services (SSS) Division is crucial to programme offer, and it provides a central co-coordinating focus for the 12 Regional Resource Centers (RRCs) each with a Regional Director. RRCs are the local level administrative body of the University. The Director of SSS is the executive head of the RRCs and the University's senior responsible officer for regional matters and is also responsible for the overall co-ordination of RRC administration. 80% works of the RRCs are for OS programmes. It is reported that RRCs do not employ effort for existing non-formal education (NFE) programmes of the University. RRCs are responsible for the quality of the followings:**

- **Advice on and support services to enquirers, applicants and students;**
- **Recruitment, development and management of (part-time) tutors;**
- **The tutorial programme and tutorial centre accommodation;**
- **Administration of examination centers under the rules specified by the examination regulation;**
- **Recruitment of external invigilators for the examination centers; and**
- **Liaison with other educational institutions and other organizations in their region particularly for tutorial programmes, examination centers.**

**SSS's feedback is very essential in maintaining the gender responsive tutorial sessions for the OS programmes. Because the OS tutors are located throughout the country, and each one is attached to one of the 12 RRCs. The formal responsibility for the appointment of tutors rests with RRC Directors, advised by members by the School. As SSS is the recommending division for tutors' appointments, it has responsibility for implementing University's central policy of gender-responsive and sensitive programmes. In this regards, SSS division recommends the tutors keeping**

**the ratio of male-female which balances the both gender. There appears to be a largely consistent pattern of bi-weekly face-to-face (f2f) tutorials for all courses for 20 weeks per year, most likely 20 per year per course. Special local practical activities in some courses are also held at the TCs. Female learners usually attend these sessions, sometimes, from 10-15 kilometers far from the centres. They occasionally face eve-teasing or some other humorous problems on the way to the TC. In spite of these, they attend the session. But - why? Do they feel the session gender friendly?**

## FINDINGS

**Founding Vice-Chancellor of BOU, Professor Dr. M. Shamsher Ali (1994) spoke on a coordinating meeting; where the researcher herself attended, and said women are to be partners in development; therefore, OS programmes should put emphasis on cater to the female learners as much as possible. Suleiman (2004) asserts that gender imbalance in education attainment have been a major reason that contributes to low representation of women in mainstream of economic activities. Therefore, it is paramount important that tutorial sessions of the School has to be gender-sensitive. UNICEF (2011) prescribes for gender-sensitive classroom as follows:**

- **Promotes gender equality in enrolment and achievement;**
- **Eliminates gender stereotypes;**
- **Guarantees girl-friendly facilities, curricula, textbooks, and teaching-learning processes;**
- **Socializes girls and boys in a non-violent environment; and**
- **Encourages respect for each others' rights, dignity, and equality.**

**Class size affected each of these dimensions. BOU uses the local school/colleges for its tutorial centres (TCs) which are connected with good communication and infrastructural well-developed and well-equipped. It also allows only 50 learners for each centre. Therefore, class size is appeared very standard and where there is no problem for male-female sitting arrangement as the mean responses is 2.2 only.**

**Gender of learners was significant only in the study, with males participating more in the session interaction where the mean responses is 3.32, but this gender difference was not due to tutors' discrimination. Female tutors were more likely to create a participatory climate for all students. Creating a better tutorial support climate for female students creates a better learning environment for all learners.**

**Table: 1**
**Learner's Responses on Gender Issues on Texts and Tutorials**

| Parameters | | Percentages of learners' opinion | | | | | Mean Responses |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree | |
| 73 | Tutors use gender-sensitive supplementary materials in the session | 4.1 | 12.3 | 31.5 | 34.2 | 17.8 | 3.49 |
| 76 | Tutors use SLMs in the session are gender-responsive | 5.3 | 17.1 | 35.5 | 28.9 | 13.2 | 3.28 |
| 78 | Tutors allow male-female friendship for sharing learning | 2.6 | 12.8 | 33.3 | 35.9 | 15.4 | 3.49 |

**Table 1. (Continued)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 76 | Tutors put special attention to the boys over the girls only in particularto the feedback | 2.6 | 9.2 | 19.7 | 21.1 | 47.4 | 4.01 |
| 79 | Tutors are cooperative and give an equal chance of participation to both genders | 7.6 | 15.2 | 20.3 | 20.3 | 36.7 | 3.63 |
| 76 | Female learners sit separately in the tutorial session | 42.1 | 19.7 | 17.1 | 13.2 | 7.9 | 2.25 |
| 73 | While doing participatory work in the tutorial session, tutors make group combining member from both genders | 5.5 | 17.8 | 28.8 | 31.5 | 16.4 | 3.36 |
| 77 | While presenting group's work, tutors allows equal opportunity to both gender | 10.4 | 15.6 | 20.8 | 24.7 | 28.6 | 3.45 |
| 75 | While doing pair works in the tutorial session, tutors make pair consisting male-female | 5.3 | 18.7 | 20.0 | 24.0 | 32.0 | 3.59 |
| 72 | Male learners put more feedback than female in the interaction with tutors | 11.1 | 23.6 | 18.1 | 16.7 | 30.6 | 3.32 |
| 73 | Humorous situation while attending session | 17.8 | 31.5 | 23.3 | 16.4 | 11.0 | 2.71 |

**In the research the interactions in the tutorial session was observed and found in relation to the session room behaviors:**

- **Male learners talk more than female learners in the tutorial;**
- **Male put forth more control over the topic of conversation in the group study; and**
- **Male's participation have a tendency to interrupt women's contribution to the session room.**

**In addition to the academic support, the tutors provide some administrative and social support to the learners. Learners' interactions at the centre are as follows:**

- **Tutors address male learners more frequently, and use their names;**
- **Humorous characteristics are more frequently applied to females in the form of fun;**
- **Humorous treatment with women is offensive; but some female learners expressed that they sometimes are the victims on the way to attending the sessions (mean responses is 2.21). They also reported that tutors are sometimes informed this issues. Teasing is the main problem on the way to the session.**

**Researcher's observations were as follows:**

- **Tutors have a propensity to make eye contact more with male learners;**
- **Slow learners inclines to feel ignored by tutors more often than do fast learners;**
- **Tutors have a tendency to gesture more often in response to male's questions and interpretation than to female's**

**Gender-fairness of tutors in TCs of the OS has been found which are, favorably, and appropriately applied to both male and female learners during interaction in the tutorial sessions (mean responses are 4.01). Table 1 above offered answer to the research questions showing the level or quality of perception of male and female students of gender-fairness exhibited by tutors.**

**In other words, there seems to be no discrimination in the observations or perceptions of the two sexes as regards gender-friendliness of the tutors. This, therefore, implies that the tutors are less discriminatory and ensured gender equality treatments in the tutorial sessions.**

**Their use of supplementary materials and self-learning materials are also gender-representative because it shows mean responses 3.49 and 3.28 respectfully.**

## CONCLUSION AND RECOMMENDATIONS

**The study of the gender friendliness of the BOU OS tutorial sessions attempts to identify what environmental factors are conducive for gender-sensitive and the reasons why these factors have such influence. The key texts from which OS tutors work are gender friendly.**

**The study revealed that both male and female learners had same level of perception towards the gender- fairness of the tutorial sessions of the Open School programmes. This implies that the tutors give equal treatment to all in tutorial session irrespective of the sex factor. Still there is scope for further development.**

**It is therefore recommended that more awareness on gender equality and more empowerment should be given to tutorial sessions to enable them promote and uphold gender-fair behaviors during the sessions particularly for participatory approach applied. For this tutors would need the gender training and this will develop their attitude and preference towards gender-friendliness of the tutorial sessions. Future research may be conducted on the issue like: How does one make the classroom gender friendly if the curriculum itself is not gender friendly? Another issue is the legitimacy of the material is often questioned if it is too "man" centered, which can be another study area.**

## BIODATA and CONTACT ADDRESSES of the AUTHORS

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International Women Online Journal of Distance Education

January, 2015 Volume: 4 Issue: 1 Article: 02 ISSN: 2147-0367

# THE IMPORTANCE OF DISTANCE EDUCATION IN NURSING

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## ABSTRACT

**Nursing that the reason of its essence arises from social requirements is a practical discipline. It requires knowledge and skills. This knowledge and skills must be updated with developments in the health field.**

**However, because of their living conditions, nurses cannot continue the formal education. Distance nursing programs provide flexibility to them. In this study will be handed the importance of distance education for nursing and the attitudes of nurses towards distance nursing programs.**

**Keywords: Nursing, distance nursing education, attitude.**

## INTRODUCTION

**Nursing is a profession that offers health services to individual, family and society. It is originated from the traditional female role. Traditionally woman has the roles such as wife, mother, daughter and sister. And since human existence, women were interested in people who need care like babies, children and the elderly. In this context, nursing is known as a profession specific to women. During periods increased inequality of women and men in the world, women were removed from health services (Turan, Öztürk, Kaya and Atabek Aştı, 2011; Ulusoy 1998). Also, in Turkey, after the proclamation of the Republic, women gained some of the fundamental rights. After the women had these rights, formal nursing education was started (Ulusoy, 1998).**

**The early 1970s, nurses worked in clinical and hospitals. Today, they are working in factory, social care homes, and private workplace so on. Also, they are working in different countries (Seloilwe, 2005). One of the factors affecting the nursing profession, how it is perceived by society (Çınar and Demir, 2009). Being a woman affects this perception significantly. Being women of nurses have adversely affected the independence and legal, organizational and economical rights of the nursing profession. On the other hand, because of the affection and compassion expectation of society, nurses felt psychological pressure. Therefore nurses remained far from science-based systematic thinking. Also, this situation led to seek their rights and a solution for their needs and problems. The uncertainty of the roles and different education levels of nurses were caused to get jobs outside of nursing (Çınar and Demir, 2009).**

## THE IMPORTANCE OF DISTANCE NURSING EDUCATION

**Budgen and Gamroth (2008) declared that the entry level to nursing programs shifted to university to improving the quality of education and to recognize as an academic discipline besides the application dimension. Although the first graduate nursing education started in 1955 in Turkey (Ulusoy, 1998), today, there are still health vocational schools and two-year associate degree programs. Nurses with different levels of education may lead to problems towards the qualified, reliable and equal service.**

**In this context, nurses who follow developments in science and technology and use the research results in the fields of application will be effective and important in the provision of quality health services.**

**But, nurses can update their knowledge and skills only with the continuity of education. On the other hand, nurses cannot continue the formal education due to their living conditions. They have trouble in individual, occupational and familial context (Beldarrain, 2006; Atack 2003).**

**The goal of distance nursing education is to provide equivalent to formal education (White, 2006). Computer technology can be used for various purposes in distance nursing education. It can be used**

**instead of traditional teaching methods or as supportive. On the other hand, it has gained importance an alternative way to gain of clinical skills (Bloomfield, While &Roberts 2008). When the distance nursing education is planning, it should be taken decisions that affect all aspects of the education system.**

**Because learning environment is a system that consisting of instructors, students, course materials and technology etc. (Simonson, Smaldino, Albright and Zvacek, 2009). In this context, when developing distance nursing courses, there are issues that need to be considered (Moore and Kearsley. 2005). Some of these are,**

- **Determination of content**
- **Configuring and sequencing of the materials**
- **Selection medium**
- **Determination of teaching strategies**
- **Ensuring interaction**
- **Evaluation of learning**
- **Giving feedback to students**
- **The choice of production methods to create course materials**

**Bates (1995) stressed the use of technology in the distance education. The number of students is important. Because choice of medium depends on the number of students choosing courses. On the other hand, students need education to use effectively technology. The researcher added that technology is a no problem, it is a tool. The problem is what will be taught, how to teach (Bates, 1995).**

## THE ATTITUDES OF NURSES TOWARDS DISTANCE NURSING EDUCATION

**Buxton (2004) stated that nurses tend to choose the distance nursing education programs. Because these programs give flexibility in their life. So they could get a higher education. They want to minimize their stress by choosing distance nursing education programs. In a qualitative study conducted with 20 nurses, 80% of participants stated that they have different working hours, and wanted to organize to their working conditions the distance education programs (Boz, 2008). The participants stated that distance education programs more convenient to them because they are married and have children, and are working in shifts. A participant expressed as "we work….in terms of time and effort….this facility would be better…." (Boz, 2008). Friedlander (2007) stated that the attitudes of nurses who married and have children are positive. White (2006) indicated that 54.5 % of the nurses who choose distance education were married.**

**Additionally, Yu and Yang (2006) found that attitudes of nurses who are working and have family responsibilities are more positive towards the web-based courses. In**

**contrast to this work, Boz Yüksekdağ (2013) declared that no significant difference between the attitudes of nurses related to distance education and marital status.**

**But, in the same study, the attitudes of nurses working permanent night were more positive both nurses who working day and shift. Friedlander (2007) reported that attitudes of nurses who work 40 hours per week and over towards the distance nursing education were more positive. This finding is similar to the result of study of Boz Yüksekdağ (2013).**

**Bonnel (2008) stated that the distance learners found valuable critiques and suggestions that they received from their tutorials and peers. In addition to, Johnson (2008) and Su (2006), stressed that the absence of interaction will lead to feelings of loneliness. Huckstadt and Hayes (2005) emphasized that the future of distance nursing education depends on well-structured interactive programs.**

**According to Su (2006), interaction is very important, because it related to the motivation, participation and responsibility of learners in the distance learning process. Boz (2008) noted that 80% of nurses asked the suitable distance nursing programs to their working conditions and time.**

**Also, all of the participants (100%) asked the counseling of experts in the field, and feedback. 75% of participants asked immediate feedback (Boz, 2008).**

**On the other hand, Thomas (2010) found that many nurses are reluctant related to use of computer and Internet. The researcher added that the one of the most important reasons of this is technical problems, and old nurses have more problems than younger in technical skills. Wilbright, Haun, Romano, Krutzfeldt, Fontenot and Nolan (2006) denoted that in some university hospitals in USA, computer literacy skills of nurses are middle or worse. They added that many nurses do not have the required minimum computer skills to perform their jobs effectively and efficiently.**

**Boz Yüksekdag (2013) noted that 89.7 % of the participants have a computer with an Internet connection at home. 90.2 % of the participants have a computer with an Internet connection in the workplace. 59.8 % of the participants use the internet between 5-7 days per week. The participants of study (76.3%) use the computer to search for the most professional knowledge.**

**and work areas. In this context, in the creation of distance nursing education programs, the proximity to the computer technology of the target audience is important for the adoption of these programs. 69.1 % of the nurses want to participate to the distance nursing education programs to complete the most undergraduate degree (28.4 %). 12,9 % of the participants have formal associate degree and 24,7 % have open education associate degree.**

## RESULTS

**According to the above findings, it is likely; nurses will prefer to distance education programs to increase their education level.**

**In this context, flexible distance nursing education programs facilitate their social and professional lives. The designers of distance nursing education should take into account the working conditions of nurses.**

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International Women Online Journal of Distance Education

January, 2015 Volume: 4 Issue: 1 Article: 03 ISSN: 2147-0367

# THE IMPACT OF TECHNOLOGY IN BREAKING BARRIERS TOWARDS WOMEN'S LIBERATION IN OPEN DISTANCE LEARNING

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## ABSTRACT

**Technology has brought about unique changes in education as a whole, how people communicate; research, preference and social interaction. It presents before the society a growing recognition of the recent and wider possibilities in the new era. The proposed study identified the impact of technology in breaking barriers towards women's liberation in Open Distance Learning (ODL) to contribute towards enhancing women empowerment. The two concepts Open Distance Learning (ODL) and Distance Education will interchangeably used in this research because the participants are furthering studies through ODL and DE (ODL/DE).**

**This paper is qualitative research in nature and an auto-ethnographic approach focused on questions pertaining to how technology breaks barriers towards women's liberation, perseverance, how women integrate the ODL/DE environment into their personal life.**

**I reflected on my personal journey coming from being a primary school teacher and studied through ODL until I completed my doctoral degree with University of South Africa (Unisa). For this study, 117 women who studied at Unisa an ODL institution were interviewed and 58 women who studied at the University of Pretoria (UP) a Distance Education (DE) Unit. Amongst the 200 participants, there were 25 women who dropped out and they highlighted their attitude towards studying through ODL/DE. Also 110 questionnaires were sent out and 83 were returned. Data were analysed.**

**The findings suggested that technology improved and liberated women's livelihoods in many respects because of their perseverance and taking extra online modules through ODL/DE. Findings suggested that technology contribute towards enhancing women's empowerment and liberation in. Therefore, women empowerment is an active multi-dimensional process which empowers women to realize their full uniqueness and powers in all walks of life. The paper concludes by recommending that women should be able to live a life without limits and see life in a better perspective.**

**Keywords: Open Distance Learning, women empowerment, women liberation, barriers to women, perseverance, technology.**

## INTRODUCTION

**According to Keengwe (2008) technologies allow students to work more productively than in the past, but the teacher's role in technology rich classrooms is more demanding than ever. Technology has the potential to transform the nature of education by improving teachers' design work, enhancing the roles of students and teachers in the learning process and helping to create a collaborative learning environment, etc.**

**Presently technology is considered as an important means to promote new methods of facilitating teaching and learning (Voogt, 2003).**
**ODL is a source of progress and development for women. Marriage has always been a a barrier for women's education. I was very much fortunate to get married to a husband who did not suffer the disease called "Pull her Down Syndrome". Instead he encouraged me to pursue my studies through his support.**

**After passing Matric level, I enrolled for a Junior Degree with the University of Venda for my first degree. It was very difficult for me as a married woman to look after my family (my husband and our 4 sons) and attend classes at the same time, since the University of Venda was a face-to-face one.**

**Women threatened leave their homes for further studies because of the risk of losing their husbands. It was believed among African cultures that little or no education was appropriate for women just to make them literate.**

**According to COL (2009), open learning describes policies and practices that permit entry to learning with no barriers or slight barriers of age, gender or time, while recognising prior learning. Distance education is the delivery of learning or training to learners who are separated from their lecturers, mostly by time and space, from those who are teaching and training.**

**Conceptually different, yet balancing, these two phenomena come together in the term open and distance learning. ODL provides flexible learning opportunities and has been a key to allowing more people to overcome barriers such as age, gender or physical remoteness to access education. Open approaches can also help to scale initiatives so that curricula, teaching materials and other learning content can be freely accessed and adapted to other contexts.**

**I came to realise that not everybody had an opportunity to learn at universities on a full time bases. Therefore, I took the ODL route. Distance learning caters for the needs of the learners who wish to enhance their knowledge, skills and education, while holding their jobs.**

**Many people start working immediately after leaving school and these people, if they want to get a degree while working, it is possible because distance learning degrees are available to them. I felt that there is a need for me to upgrade my qualifications and I chose to study through Unisa. I motivated myself because one of the main doubts people have to ODL/DE is the necessity of self-motivation.**

**As a woman full of experience in ODL, I would like to encourage other women to remind themselves all the time why they are or not studying.**

**They should ask themselves what qualification they are striving for. Before I registered, I asked myself what I wanted to achieve. My experience with ODL is that, it can open up new opportunities and benefits such as to be exposed to technology serving as a weapon to break barriers in the lives of women and liberate them.**

**Technology has the potential of improving quality of education, increasing access to education, pedagogical innovation and creating high market value (Jung, 2008). My experience tells me that the impact of the use of technology breaks barriers towards women's liberation in ODL/DE) has been significant. ODL has created opportunities for**

**women to make time to upgrade their qualifications and skills at reasonable intervals and further their education.**

**According to Indiresan (1996), distance education has an important role to play in providing opportunities for women to participate in higher education. It is a suitable mechanism to bring social and economic transformation of women and can allow them to pursue their education while still taking care of their families and outside work. While women are studying through ODL they experience different challenges and I would like to highlight such barriers is this study but how have technology influenced Women's Liberation?**

## TECHNOLOGY BARRIERS ARE MEANT TO LIBERATE WOMEN IN ODL/DE

**Various media, such as video conferencing, printed texts, radio or other audio formats, television or other video formats, the Internet, mobile devices or Web technologies, may be used to empower and each women to be liberated. My experience within my Directorate: Curriculum and Learning Development (DCLD) as an Education Consultant at Unisa is that, teaching and learning through technology requires patience and the willingness to learn different teaching and learning tools. In 2007 I took a Cluster of online module. For me, the last five weeks has been a major explosion in online facilitation. This has been driven by technological developments, not only in the delivery of course content but also in tools for communication that allow lecturers and students to interact with each other.**

**These tools range from email, discussion forums, blogger, wiki, face book and linked in. Each of these has the potential if used wisely and imaginatively.**

**There are many contexts where today's lecturers might find themselves involved in online learning. It could be through using a Virtual Learning Environment to deliver entire courses at a distance. As I was working at Unisa, I never thought that I would ever use myUnisa Learning Management System (LMS) in my life.**

**Given the changing role of academics and the importance of technology in all teachinf and learning work contexts, lecturers are under increasing pressure to develop their own working knowledge of how to facilitate learning in this changing environment. Drawing on their practical experience and recent research into technology, it is important to take an online course as a student in order to understand the online process. Lecturers and educators who don't have this experience first-hand can underestimate the misunderstanding and confusion that accompanies one's first experience technology.**

**Personally, I didn't like using myUnisa and everything associated with technology because it was serving as a barrier for me to train academics to facilitate teaching and learning for our distance students.**

**In my Directorate, the entire Education Consultants were to undergo an online facilitation course for five consecutive weeks. We were expected to register online and I didn't even bother to register until Mrs. Alice Goodwin- Davy said to me "Anniekie I don't see your name on the two groups participating" this statement took my joy away and I would hide whenever I hear Alice's voice by the corridor. I ended up registering and I realized the seriousness of learning through technology. After registering I was allocated to the second group and we were supposed to introduce ourselves online. Let me tell you, it wasn't easy for me and ultimately I was registered. I just want to appreciate Alice, our**

**online facilitator, a computer guru, who broke the technology barrier of using technology from me by treating the participants as self-motivated adult learners and she supported ideas and suggestions that participants raised.**

**In spite of limited active participation, this is one of the best learning experiences I have had because of the careful attention to all aspects of the learning content and the learning experience.**

**From the online facilitation course, I managed to developed a Hydroponics Website with my colleague Mrs. Gugu Ngokha whom we were paired together and as I am talking, it is up and running. A very worthwhile experience, it is a great pleasure to witness facilitation skill executed at such a very high level.**

**Now that I have learnt technology techniques, I am motivated and encouraged because I am one of the four Facilitators for the A-Z of myUnisa Training at the University of South Africa. As a facilitator, I understand my role to use tools and techniques that engage the hearts, minds and souls of the students online. The academics that I work with realised that when students are in different places and time zones, discussion forums can be useful tool to engage student in an activity. As a distance learning student or lecturer, you might be going through the fear I was experiencing, take this from me, "*if I can do it you can also do it*". In the beginning, I was quite nervous. Learning to learn is probably one of the most important personal characteristics of an effective online facilitator. My understanding of learning to learn is that it is a continual process of action, reflection, self-insight and interaction with others.**

**According to Candy (1990), there is no agreed upon definition of learning to learn. Rather, learning to learn is defined according to how one has framed the concept, and this varies across discipline and philosophical orientation. He provides the following compilation of definitions: Smith (1991:19) states that "learning-how-to-learn involves possessing, or acquiring, the knowledge and skill to learn effectively in whatever learning situation one encounters".**

## METHODLOGY

**An auto-ethnographic approach was used. According to Ellis and Bochner, (2000) the researcher is able to draw connections from his or her personal life to the lives of others or extend understanding about a particular culture or society while utilising an auto-ethnographic approach. Questionnaire surveys and focus group interviews were integrated and conducted with students who studied at an ODL (Unisa) and DE (UP) focusing on the research question "How technology impacted their learning through ODL/DE".**

**For this study, a purposive convenient sampling of 200 was drawn of which 117 women who studied at Unisa an ODL institution were interviewed and 58 women who studies at the University of Pretoria (UP) at a Distance Education (DE) Unit. Amongst the 200 participants, there were 25 women who dropped out and they highlighted their attitude towards studying through ODL and DE. Also 100 questionnaires were sent out and 83 were returned. These women were randomly selected. Questionnaires were distributed to participants in the survey. Participation was voluntary and participants' personal information was not revealed.**

### Validity and Reliability

**All participants were informed about the research study in a way that was assumed to be clear and understandable to them. The research questions were formulated clearly and presented to the respondents in written form to avoid ambiguity.**

## Ethical Issues

**Participants in this study participated voluntarily. Names of participants remained anonymous and all the information received from participating groups was treated as highly confidential. The significance of the research study was clearly explained to the participants. The participants were also afforded an opportunity to ask questions. In this research study, participants were made aware of their right to withdraw if they so wished.**

**The established agreement did not place participants under the obligation to continue participating in the project if they were no longer interested.**

**All participants in any kind of research should have the right to confidentiality. The researcher assured the participants that sensitive data was to be held in the strictest confidence in order to protect their anonymity.**

**The research was therefore conducted with respect and concern for the dignity and welfare of the informants. The individual's right to decline to participate was respected in this study. The researchers ensured that the purpose and activities of the research were clearly explained to the participants. The researcher ensured that promises and commitments were honoured by safeguarding participants' identities.**

## PARTICIPANTS' BACKGROUND

**In terms of ethnic and cultural background diverse women students contributed to the findings of this research. There were four categories of women who were generous enough to give me their time and their insights were a varied group, ranging in age from 28 to 35-52. The first category, 43 (21.5%) of the participants are undergraduates who are single, with no children living by themselves.**

**They are primary and secondary schools teachers while the second category 57 (28.5%) are graduates who are married, living with the in-laws and they have three children each. This category is composed of Head of Departments (HOD's) and Principals at both primary and secondary schools.**

**The third group of the participants, 68 (34.0%) hold Honours degree, married and has five children, ranging in age from 7 to 25 years of age. They are Managers of Further Education and Training Colleges (FETs) and Colleges of Education. The last category 32 (16.0%) are Postgraduate, unmarried and divorced. They have no children and they hold high positions in the Government Departments.**

## The Questionnaire

**The self-completion questionnaire was selected as the most appropriate tool for two reasons: (a) because it is an effective small-scale research tool and (b) because "the knowledge needed is controlled by the questions, therefore it affords a good deal of precision and clarity" (McDonough and McDonough, 1997).**

**As Cohen and Manion (1994) state, "surveys gather data at a particular point in time with the intention of describing the nature of existing conditions or determining the relationships which exist between specific events". In addition, given the size of the study and number of people involved a questionnaire was particularly appropriate for collecting data in a relatively quick and inexpensive manner (Bell 1999).**

**Furthermore, because they are anonymous questionnaires encourage respondents to be honest. Seliger and Shohamy (2000) believe that they provide data that are more "uniform" and "accurate" than that obtained by other methods.**

**In an effort to maximise the response rate, the questionnaire was designed to be deliberately short. These questions were open-ended questions to avoid respondents feeling pressured to write too much.**

## Processing the Data

**In processing the questionnaire data and following Cohen and Manion (1994) the returned self-completion questionnaires were checked for completeness accuracy and uniformity. It was discovered that each respondent had answered every question and. furthermore that all questions were answered accurately (in the sense that appropriate answers had been given to the questions).Respondents also interpreted the instructions and questions uniformly (Table 1).**

**Table: 1**
**Breakdown of questionnaires dispatched**

| Name of the University | Number Dispatched | Number Returned | % Returned |
|---|---|---|---|
| University of South Africa | 68 | 52 | 47.2% |
| University of Pretoria | 42 | 31 | 28.2% |
| Total | 110 | 83 | 75.5% |

**The respondents who are Unisa and UP students who were randomly sampled, composed of a diverse group regarding demographic, educational, employment, living and learning information. From the sample, I discovered that there were 25 (22.7%) students who dropped out their studies and they indicated that the reasons for dropping out were associated with barriers in ODL/DE.**

**The good news is that, 14 (56%) decided to continue with studies while 11 (44%) didn't show any interest in continuing to studying through ODL/DE. It was observed from the sample study that 75.5% of the women were highly motivated sharing how technology impacted their learning through ODL/DE, how barriers brought in perseverance and the way they managed to integrate the ODL/DE environments into their real life situations.**

**The results further suggest that technology breaks the separation and loneliness of students/lecturers and between students themselves. This is a clear indication that life is full of choices and women can be successful in their studies and liberated from barriers. The respondents were so keen to participate in the focus group interviews and to complete a questionnaire looking forward towards women's liberation through technology in ODL/DE. From the high response rate 75.5%, one concludes that technology assisted women in integrating ODL/DE environments into real life situations for the success of their studies.**

**I would like to remind women that technology has come to stay as the backbone of communication in ODL/DE teaching methodology. The response rate was calculated by**

**comparing the number of questionnaires analysed with the number distributed to ODL and DE students (Table 2).**

**Table: 2**
**Summary of questionnaire response rate**

| | |
|---|---|
| **Number of questionnaires distributed** | **110** |
| **Number of questionnaires returned** | **83** |
| **Response rate** | **75.5%** |

## PRESENTATION, ANALYSIS AND DISCUSSION OF RESPONSES

**The execution of this research produced a mass of raw data. The data had to be accurately collected and systematically organized to facilitate analysis.**

**The analysis of responses from the questions in the questionnaires and interview schedule were more complex because of being open-ended items. After the responses had been categorised, the results were transferred to summary data sheets. Recording of the data in a systematic manner facilitated examination of the data as well as analysis. The information gained from the interview schedule provides further insight. The interviewees were given the opportunity to give their views on the impact of technology in breaking barriers towards women's liberation in ODL/DE, suggestions for improvement and recommendations. Their contributions, since they were drawn from practical experiences, are valuable and are included in this study. The total number of questionnaires distributed were 110 and 83 were returned. The percentage response was 75.5%, contributing to the reliability of the data obtained. It was very interesting when the participants we sharing how technology impacted their learning while they were furthering their studies through ODL/DE.**

**The findings presented show that the majority of respondents suggested the effectiveness of keeping updated by studying through ODL/DE. This study has shown that technology can be used as a tool to break barriers ODL/DE to liberate women when managed appropriately.**

### Response of the Respondents As Regards How Technology Impacted Their Learning Through ODL/DE

**The majority of the respondents (81.9%) indicated that technology helped them to change their learning for the better whereas 15.4% mentioned that technology frustrated them and dropped out and 2.7% expressed no opinion.**

**From the data it is evident that if more women can have technology access, most ODL/DE students would tend to change their study methods.**

**It is apparent from these responses that the majority of the respondents are of the opinion that technology changed their thinking about studying through ODL/DE.**

**The first categories of the respondents 21.5% are undergraduates, single, with no children, living by themselves are educators in primary and secondary schools. They highlighted that after they graduated, they planned to continue with their studies because they can meet other students online. They further indicated that they have taken several distance learning Modules/Courses, and they consider themselves experienced distance learners.**

**Regarding the second group of participants in the study, 28.5% who are graduates, married, living with the in-laws and having three children each, they are Head of Departments (HOD's) and Principals at Primary and Secondary Schools. They were distance learning student in different departments at UP and Unisa. Presently, they have taken a variety of Bed/Honours degrees with the plan to obtain Bed and Honours degrees online.**

**Third group of the participants 34.0%, are married and have five children, ranging in age from 7 to 25 years of age. They are Managers of Further Education and Training Colleges (FETs) and Colleges of Education. They are students in different programmes, and they are writing Masters Dissertations. They reported that after they graduate, they plan progress on to a Doctoral program. They prefer to study through ODL/DE institutions and they are planning to take more because technology has empowered them and they are liberated from going to face-to-face class.It is interesting to note that 16.0% of the participants are postgraduate, unmarried and divorced. They have no children and they hold high positions in the Government Departments. They registered for Doctoral programmes.**

**They indicated that the use of technology in ODL/DE saves much of travelling because they can drop their chapter in the dropbox where their supervisors will keep them updated.**

## Views of Respondents In Respect Of Educational Barriers

**Many of the barriers women face in accessing ODL/DE using technology are the same as the ones they face when accessing education of any kind. This item examines the factors that inhibit OR hinders women from furthering their studies using technology in ODL/DE. The majority of the respondents (79.2%) highlighted different barriers around technology includes unfriendly learning environment, poor network connections, lack of computers and the fear of technologies.**

**The majority of the respondents (55.0%) from the sample are comfortable while students are studying in ODL/DE, while 30.8% of the respondents raised concern about different barriers connected to technology; a small percentage 14.2% expressed no opinion. Barriers of this kind can manifest themselves as negative experiences of learning, negative attitudes towards learning, anxiety about the results of learning. Just 33.5% of the of the drop out participants showed concern about the lack of Internet access saying that it is a barrier when they want to download or access some posted document.**

**The results suggest that almost all the students (78.3%) commented on time constraints as a barrier. They mentioned that all the time they feel tired due to work load they have. It is good to note that the respondents indicated that, if they try to study, they feel sleepy. If they try to force themselves to study, they read with very little understanding because the brain and the body are tired. A large percentage 63.2% of the married participants with children argued that they need some rest, but they cannot rest because at 4.30 am they are required to be up again to prepare for the family breakfast and go to a full day's work, while the those working for Government Department 26% don't have problems with time constraint and a small percentage (4.2%) of the unmarried expressed no opinion.**

## Response of the Respondents As Regards Perseverance

**Life has taught me that perseverance is the mother of success. The researcher studies through correspondence from Matric (Grade 12) to Doctoral Degree. I am the product of Open Distance Learning, University of South Africa.**

**My BA is the only degree that I got from the University of Venda and the rest are from Unisa. Life has taught me that distance education gives women a second chance to step into the main systems of education, including higher education.**

**It allows women to earn and learn at the same time, as well as to fulfill family responsibilities. You can learn with no limits.**

***My personal ODL journey motivated 72.6% of the drop out participants and indicated that they are going to re-register with ODL/DE.***

***I was born in a rural village called Mauluma in the Limpopo Province of South Africa. I completed my primary education there and proceeded to Mphaphuli High School in an area called Sibasa. I studied from Form 1 to Form 3 and then proceeded to train as a primary school teacher at Tshisimani Training College.***

***I completed the Primary Teachers Course in 1977. I started my journey as a teacher in 1978. I got married but realized then that my qualifications were not enough. I then registered to write Form 5 (Matric) through correspondence. As a married woman, children were born on the way and taking care of the family. I remember in 1986, I was highly expecting when I wrote the exam in November, I couldn't even fit into the desk I was sitting at.***

**By that time I was doing my 3rd year of Bachelor of Arts, I got a supplementary and I was expected to write on 28 January 1987.**

**I gave birth on the 26 January 1987; fortunately it was a normal birth. The day of the examination my Dad had to come and remain with the baby as I was writing because by that time my husband was a Principal at Raluswielo Secondary School. When the results came out, I got 63%; this is the joy of perseverance and being supported by the family.**

## Views of Respondents In Respect of Integration Of ODL/DE Environments into Real Life Situations

**The majority 72% of the participants managed to integrate the ODL/DE environment with their real life situation by facing and overcoming challenges of family, work commitments and the burden of studying alone by employing creative solutions and by complete perseverance.**

**Most of the participants 54.9% who have children indicated that they were all were motivated by the need to help or support others: their families, their colleagues and their local communities.**

**They further explained that they combined their studies with their need to care for their children who were also studying. My personal ODL journey demonstrate how women can draw their inspiration from friends or relatives who had also studied successfully, and were not put off by being older or slower at learning than their classmates.**

**The majority 68% of the four categories of the participants presented in this study confirmed that even though on the surface they experienced barriers while they were studying, there are still some "hidden" difficulties individuals need to overcome. One of these is the need to buy a personal laptop and the internet connection. This can often mean sacrificing activities because technology became a huge tool that makes it possible for distance students to manage studies in ODL/DE.**

**All the participants appeared to be very strong in character, as is evidenced by their ability to manage their time and cope with their multiple roles and personal adversities as**

well as allowing for some time for their own relaxation. Another sign of their strength is their strong perseverance and determination to succeed in achieving the goals they set for themselves. 72.4% mentioned that determination helped them to persist through the difficult times of their studies.

Most 69.3% of the participants expressed their initial fears that they would not be able to cope with the work, but these were put to rest once they started their modules/courses and found that some of their classmates were other women just like them.

And 88.6%of the participants referred to the sense of the impact of technology breaking barriers towards women's liberation in ODL/DE they experienced through their studies. 71.3% of the participants shared with the group that forming study groups with their classmates was an important strategy to help them through integrating ODL/DE environment into their real life situation.

For all of the participants, their studies experience have brought about career-related rewards such as promotion, but the main benefits have been in their personal growth and the way they have been able to inspire their children, friends or colleagues to further their own education and to see technology.

All are wholehearted in saying that they would advise other women to follow their examples because this is what they call women empowerment.

## Respondent's Reaction Pertaining To Attitude Of Dropout Towards Studying Through ODL/DE

The concern from the respondents 22.7%of the participants (dropouts) is about the availability and accessibility of lecturers. Students wanted to be able to contact a real person and to have their questions answered on time as while they are studying online. I suggest that since technology facilitates teaching and learning provided by ODL/DE it should be reliable and available to minimise frustrations and dropouts.

The internet has revolutionized education as it has other areas of life and much support can be provided online. When lecturers are linked to student's courses, they should make it a point to engage students and encourage them to interact with other students in the same course.

They further mentioned that distance lecturers/tutors don't have sympathy with students. They don't understand the degree of difficulties that distance students may have in pursuing their distance courses.

In reality, the process of students learning at a distance as revealed in the interviews is more complex than the conventional setting the reason being that the barriers that these distance students encounter

The following is a response the respondents raised "When you are studying online, there are questions that you want to ask the lecturer and is not possible to talk to him/her. You are lost most of the time when you are using technology.

That is the problem; technology lacks a human or personal touch. One will realise that the minute you post questions through email and don't get a reply 5 minutes, 15 minutes, an hour or more, you'll feel frustrated".

In the light of the response above it is hardly surprising that providing feedback is one of the most important tasks of the lecturer/tutor in ODL/DE. Feedback must be timely, clear,

**specific and constructive. Smith (2004) reported that one of the things that students valued most was prompt and useful feedback.**

**Lentell (2003) quotes Jackson (2001:67): "Careful reading of student work is the core of teaching…if students realize you are paying close attention to their work, they feel a responsibility to pay close attention to you."**

## CONCLUSION

**The results of the research highlighted a number of areas in which women felt let down by experiencing barriers while studying through ODL/DE, especially in terms of ignorance regarding technology as a tool to facilitate their learning and accessing learning materials. Most of the respondents 58.4% in the study after the focus group interview showed a brave spirit and they promised to persevere through all barriers that can emerge in order hinder their successful and empowerment.**

**They are women who believed in the power of education to improve their lives and attitudes towards ODL/DE. It is exciting to realise that the respondents are not only aware of their rights and responsibilities as women; they can also become more competent professionally. Their self-esteem rose as a result of this confidence, and they became more aware that they are assets to their families and to society.**

**The responses of the students to the questionnaire have revealed that that technology assisted them in the process of engaging with their learning materials when they sometimes will receive their study materials very late.**

**They further highlighted that they managed to focus in their children who must be taken care of and household duties to be accomplished.**

**Most of the participants showed that they were unable to sacrifices their lives regarding: socialising with family and friends because they experienced times of doubt, despair and unhappiness.**

**They further indicated that sometimes their spouses and family members will lose patience. I was impressed to hear the comment, "I am going to re-register my degree and further my studies through ODL/DE. T**

**his focus group interview has provided me with a very high level of self-confidence. With this established confidence, I will work with different attitude. Yes, technology in ODL/DE breaks the barriers towards women's liberation in open distance learning, education is liberating."**

**The results indicated some areas in which further research would be useful and pinpointed areas where the university needed to evaluate its performance in relation to more computer labs in regions.**

**More needs to be done to enhance teaching and learning in facilitating student success through different support systems in order to ensure that ODL/DE institutions enjoy the throughput that they so desire.**

**The paper proposed the need for a closer relationship between the student and the lecturer/tutor and that these intermediary or go between support programmes can be of significant benefit in ensuring that they use Learning Management Systems that are managed and indeed reconciled with their expectations of what ODL/DE institutions should offer to its students.**

## REFLECTION ON, IN AND FOR ACTION

**This study indicates that technology is an instrument of breaking barriers towards women liberation in ODL/DE.**

**This research is an exposure to reflection-on-action, reflection-in-action and reflection-for-action for women empowerment. ODL/DE has created opportunities for women to squeeze time out in order to learn and further their education. ODL is a genuine instrument in bringing social and economic transformation of women. There are different types of barriers or obstacles on the journey of life as women academics. Personal experience over these obstacles gave me confidence and motivated me to discover my passion. For women academics to be successful, they must have a seamless experience from braking through a barrier to the next.**

**Participants in this study improved their livelihoods in many respects because they chose their qualifications and influenced their learning. This also encouraged the group of women who were not studying to register through ODL. I want to encourage women by saying that they have a choice like I did; You can choose to accept and bow down to these barriers and limitations or you can choose to break them towards liberation.**

**Never become a victim of oppression like when I was working as a lecturer at a certain college between 1994 and 2001. I broke all the barriers and limitations used to challenge me and I am liberated from everything!**

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International Women Online Journal of Distance Education

January, 2015 Volume: 4 Issue: 1 Re-Published: 01 ISSN: 2147-0367

# ATTITUDE OF WOMEN LEARNERS TOWARDS DISTANCE EDUCATION: A Comparative Analysis

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## ABSTRACT

**The study was conducted in Uttar Pradesh's Meerut district and data were collected from 43 women distance learners of Indira Gandhi National Open University (IGNOU) and 77 women distance learners of Swami Vivekanand Subharti University (SVSU) following purposive sampling method. The comparative attitude level was measured in eight sub-areas of distance learning viz., general, admission procedure, self learning material (SLM), multimedia, assignments, counseling, study centers and evaluation system. The findings revealed that women distance learners have positive attitude towards distance learning and no significant difference was found between the overall attitudes of learners from both universities. However, the IGNOU learners exhibited more favorable attitude than SVSU learners on five sub-areas of attitude towards distance learning namely admission procedure, assignments, counseling, study centre and evaluation system with a significant difference only in assignments area ($P<0.05$). The related implications for distance education are discussed.**

**Keywords:** **Distance education, attitude of women learners, India.**

## INTRODUCTION

**Education is regarded as the key factor in overcoming the barriers that women face. However, access to education for women has been limited because of institutional factors within the society and family which have contrived to exclude the majority of women from participating in educational opportunities (Kamla, 1995).**

**Women consider distance education as a panacea which may solve their numerous problems because it is economical as well as flexible. Despite all development measures, constitutional and legal guarantees leading to betterment of the social and economic life, women still lag far behind men in almost all the sectors including education. There are large numbers of women who never had gone to school or had dropped out early in their educational career. Several social, economic and political reasons seem to act as constraints to access and equity in higher education in India. Lower status of women, lack of easy access, lack of effective implementation of existing programmes, inadequate utilization of resources, absence of political will and inadequacies in coordinated actions across all equity fronts within institutions seem to be the other reasons.**
**The rural, urban and gender disparities must be kept in mind by policy makers in planning and implementing the higher education system (UGC, 2003).**

**The unit cost of traditional education, particularly of professional education, is quite high and has gone out of reach of the Indian middle and lower classes. Distance education offers an economic use of educational resources to large number of learners and can satisfy the educational needs of learners, especially women with different social and occupational backgrounds. The changing needs and aspirations of anticipated learner groups in particular and society in general can influence the planning and management of distance education system with a view to making the system socially responsive. Therefore research is needed to identify the needs of existing distance learners as well as**

**future target group keeping in view the general course of socio-economic development of the country.**

**Tripathi and Kanungo (2010) analyzed types of research published in *Indian Journal of Open Learning* from 2000 to 2009 and concluded that there were certain gaps in the research which had been reported in a ten year time period. Nembiakkim and Mishra (2010) studied distance education research attitude and barriers and concluded that respondents were positively disposed towards research in distance education, and believed in the need for more research, that is quantitative and collaborative. Distance education can be more learner centered if distance educators are aware of the problems, needs, attitudes and characteristics of their learners (Biswas, 1999).**

**In designing an effective learner support system, the institution should be familiar with the students' home and community environments, community's attitudes to education, availability of peers that can render academic assistance and a lot more other related issues (Andrew, 2003). Keeping this in view, the present study was carried out with the following objectives:**

- **to study demographic description of women distance learners; and**
- **to assess and compare the attitude of women learners towards distance education.**

## METHODOLOGY

**The study was undertaken following survey research in Meerut region of Uttar Pradesh The population selected was the women distance learners of graduate and postgraduate classes of Meerut region of Indira Gandhi National Open University (IGNOU) and Swami Vivekanand Subharti University (SVSU). Using purposive sampling, data were collected from 43 women learners from IGNOU study centers and 77 women learners from SVSU study centres, thus arriving a total sample of 120.**

**Attitude scale developed by Kumar (1999) was used which consists of 70 statements (30 positive statements and 40 negative) on 8 sub-areas of distance education viz., general, admission procedures, self instructional material (SLM), multimedia instruction, assignments, counseling sessions, study centers and evaluation system. The scale was administered on five point continuum viz., strongly agree, agree undecided, disagree and strongly disagree with a scoring of 5, 4, 3, 2 and 1 for positive statements and 1, 2, 3, 4 and 5 for negative statements, respectively with a total score range of 70 to 350.**

## RESULTS

**The demographic description of women learners presented in Tabl: 1 reveals that, 60 per cent women learners were graduates and 40 per cent were postgraduates, majority of learners were below 25 years of the age (65 per cent), unmarried (65.8 per cent), have urbanbackground (75 per cent) and employed (61.6 per cent).**

**Table: 1**
**Demographic description of the respondents Group Variable Frequency Percentage**

| Group | Valuable | Frequency | Percentage |
|---|---|---|---|
| Academic | Graduate | 72 | 60.00 |
| | Postgraduate | 48 | 40.00 |
| Age group | Belove 25 | 65 | 54.10 |
| | Above 25 | 55 | 45.80 |
| Marital status | Married | 41 | 34.10 |
| | Unmarried | 79 | 65.80 |
| Lokal | Urban | 90 | 75.00 |
| | Rural | 30 | 25.00 |
| Employment Status | Employed | 74 | 61.60 |
| | Unemployment | 46 | 38.30 |

**The mean attitude score of IGNOU learners (245.47) was slightly higher than SVSU learners (237.94) with no significant difference (Table 2).**

**Table: 2**
**Comparison of attitudes towards distance Education between IGNOU and SVSU women learners**

| University | Frequency | Mean Attitute Score | S.D. | t-value |
|---|---|---|---|---|
| IGNOU | 43 | 245.47 | 23.308 | 1852 (Sig 0.067 |
| SVSU | 77 | 237.94 | 20.201 | |

***Significant at 0.05 level of confidence**

**Out of 8 aspects of attitude towards distance learning, significant difference was noticed on assignment area (P<0.05). The IGNOU learners have significantly higher attitude in assignment area than SVSU students.**

**No significant differences were noticed on remaining 7 aspects namely general, admission procedure, SLM, multimedia, counseling, study centre and evaluation system (Table: 3).**

**Table: 3**
**Comparison of attitude towards distance education between IGNOU and SVSU students**

| Areas | IGNOU (N=43) | | | SVSU (//) | | | |
|---|---|---|---|---|---|---|---|
| | Mean | S.D. | SE | Mean | S.D. | SE | t-values |
| General | 38.5814 | 3.79368 | 0.57853 | 37.1818 | 4.27578 | 0.48727 | 1.788 |
| Admission Producure | 17.3953 | 2.92069 | 0.44540 | 16.8312 | 2.70673 | 0.30846 | 1.064 |
| SLM | 35.4419 | 4.53191 | 0.69111 | 35.2857 | 4.88245 | 0.55641 | 0.172 |
| Multimedia | 28.7907 | 4.39999 | 0.67099 | 28.6104 | 3.04854 | 0.34741 | 0.264 |
| Asssignment | 34.4884 | 5.599920 | 0.85387 | 32.6883 | 3.56245 | 0.40598 | 2.15** |
| Counselling | 32.6047 | 4.60403 | 0.70211 | 31.7532 | 4.31691 | 0.49196 | 1.012 |
| Study Center | 28.5814 | 5.12339 | 0.78131 | 27. 1948 | 4.34087 | 0.49469 | 1.572 |
| Evaluation System | 29.5814 | 4.80195 | 0.73229 | 28.4416 | 4.02457 | 0.45864 | 1.387 |

*Significant at 0.05 level

**Out of 8 factors, the means were in favor of IGNOU learners on five factors namely general, admission procedure, assignments, counseling, study centre and evaluation system.**

**In other words it may be said that the IGNOU women learners' attitude found to be more favorable in these five aspects as compared to SVSU students. The mean score of rest of the factors were almost same in both universities.**

## DISCUSSION

**The success of the distance education institutes lies in their ability to extend educational opportunities to all, including the unreached, disadvantaged, underprivileged and the community as a whole, thereby, contributing to the manpower development and growth. The results of this study have provided evidence that in Meerut region, distance learning is most patronized by urban students and single student population.**

**There is a widespread impression that the distance education learners are generally adults, who are over the age of approximately 25 years.**
**However, the study showed that though the distance learners cover a wide range of age, the largest group were below 25 years of age (65 per cent).**

**Similar findings have been observed by other workers in the past (Krishnan, 2004). The study also revealed that 61.6 per cent students were employed and the remaining 38 per cent unemployed and therefore they had no income and were dependent on their guardian's income. The study by Kumar (1999) also observed the same phenomenon and reported that 60 per cent first degree learners were employed.**

**Attitude is one important criteria of success in distance learning. One of the reasons for students dropout from distance mode is the learner's attitude and aptitude. Attitude of**

**learners towards distance education has been treated as one of the criteria in studying the success of distance education.**

**One of the reasons for students dropout from distance mode is the learner's attitude and aptitude. Since the learners do not interact on a daily basis with their teachers, they tend to be demotivated and ultimately discontinue their studies.**

**Several researchers reported a positive attitude of the learners towards distance education (Sultana et al, (2011); Osei (2010); Adeoye (2010); Kumar (1998 and 1999). In comparison with the male students, the female students had expressed more favorable attitude and employed students were more positive than unemployed students towards distance education (Sahoo and Bhatt, 1987). Gaba (2010) and Pant (2005) found that students have favourable attitude towards information and communication technology. Some of the studies conducted by Sahoo (1998); Singh and Chaturvedi (1996) and Das (1992) reported attitude and academic performance of distance learners differ from students of traditional universities.**

**But the study of Thompson (1990) found that students negatively disposed toward correspondence based distance education programme. The restricted interaction with the instructor was the major disadvantage.**

**The positive and negative attitude towards distance learning is one factor which can determine the success and failure of programmes. Once the learner is satisfied with the course/programme that may lead to have positive attitude towards the system (Kumar, 1999).**

## CONCLUSION

**Though this study reveals that women distance learners in Meerut had a positive and above average attitude, there is no significant difference between the National Open University and a private University because it may be that all Open Universities come under Distance Education Council and they follow the same rules and regulation. The IGNOU learners exhibited more favorable attitude than SVSU students on five sub areas of attitude towards distance learning namely admission procedure, assignment, counseling, study centre, evaluation system, may be because IGNOU provides a well organized support system to their students, but SVSU is a new University which started in 2008, and is in developing phase in terms of support system.**
**The result of this study points towards to rethink about the support system provided by the private universities. Institute plays an important role in distance education system. Distance education institute serve as a bridge between the supporting organization and student. Holmberg (1989) defines distance education as guided didactic conversation means the learner is separated from the teacher and peer group, and they feel isolated.**

**The distance education institute should take care of this aspect, otherwise the moral of distance learner will be disoriented and disenchanted from distance education.**

**Counseling sessions, workshops, group discussions need to be organized to improve the attitude of distance learners.**

**Timely feedback on assignments, timely declaration of results, better evaluation system, video/audio and library facilities in study centre etc. help in nurturing more favorable attitude towards the distance learning.**

**The Distance Education Council has to implement and enforce its rules strictly on private universities to maintain the standards of education, so that students under private universities are at par with IGNOU.**



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## APPENDIX
## The Questionnaire

| | I agree | Sometimes | I do not agree |
|---|---|---|---|
| **Statements** | | | |
| **1. There is no relationship between private sector institutions and Saudi universities and colleges to understand the labor market needs.** | | | |
| **2. The university is not concerned with quality assurance of the students while graduating capable and appropriately skilled cadre for labor market.** | | | |
| **3. The university does not transfer the new trends in work field to its departments which consequently force the private sector to modify, polish and renew the skills of graduates.** | | | |
| **4. Increasing number of university graduates against limited jobs in the public sector.** | | | |
| **5. Annual increase in population with same infrastructure as it was, a situation that has its effects over unemployment through limited availability of fields.** | | | |
| **6. Increasing number of graduates from theoretical departments against small number of graduates from applied departments.** | | | |
| **7. Lack of communication between the university at one side and labor market with its both sectors on the other side, by sending job applications for graduates to the labor market.** | | | |
| **8. Graduates refusal to work in the private sector because of low wages.** | | | |
| **9. Competition of foreign labor with university graduates in private sector.** | | | |
| **10. Lack of interest shown by the private sector in employing Saudi nationals because of the high cost as compared to foreign labor.** | | | |
| **11. Fear of graduates from non-abiding of private sector to fulfill the legal obligations in favor of the worker during and after the end of service period as compared to public sector.** | | | |
| **12. Lack of acceptance from some graduates to work in far flung areas.** | | | |
| **13. Social customs and traditions that limit the fields of work for woman to few fields like education for example.** | | | |

International Women Online Journal of Distance Education

January, 2015 Volume: 4 Issue: 1 Re-Published: 02 ISSN: 2147-0367

# THE SUPPORT SYSTEM IN DISTANCE EDUCATION: Factors Affecting Achievements Among Women Learners

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## ABSTRACT

**Distance education has the potential to contribute to the enhancement of women's development by overcoming not only temporal and spatial barriers but familial commitments as well. It brings education to their home and allows women to learn at their individual pace, seek skills for individual development and at the same time, enables them to fulfill family responsibilities. An important element of distance education is the provision of the learner support system that provides students the access to learning resources and means of communication that would facilitate the array of educational activities and exposure to various other guidance and advisories.**

**This paper reports on the study undertaken to elucidate the dimensions of the support system provided by the School of Distance Education (SDE), Universiti Sains Malaysia (USM) to its women learners that would have significant impact on their achievements. The factorial analysis conducted revealed that the role of the faculty is the main contributing factor affecting these achievements, followed by the provision of the intensive course, the electronic portal, video conferencing and to a much lesser extent, the existence of the regional centres. The implications of this study are discussed with the view of improving the support system provided by the institution and the need to put into action the necessary strategies to further improve the achievement of the women learners.**

**Keywords:** **Distance education, women learners, Universiti Sains Malaysia, factorial analysis, video conferencing, the support system.**

## INTRODUCTION

**In general, women have various constraints and disabilities compared to men in terms of time, space and resources. The advent of open and distance learning (ODL), however, has widened the opportunities for women and has helped to make education and training more accessible to them as they can now study within their homes. It allows them to study at their individual pace and seek and acquire skills for individual development while at the same time, it enables them to fulfill family responsibilities (Brunner, 1991).**

**Open and distance learning involves the provision of a support system by the institution to fulfill the possible range of needs presented by distance education learners and ensures the ready access to adequate learning resources and services that can stimulate the mind as well as encourage the total growth and development of the students (Sewart, 1993; Simpson, 2000; Tait 2000). Simpson (2000) defined a learner support system as all activities beyond the production and delivery of course materials that assist in the progress of students in their studies. These include the academic support which deals with supporting students with the cognitive, intellectual and knowledge issues of specific**

**courses or sets of courses. There is also the support of students in the effective and organisational aspects of their studies.**

**A vital ingredient in the support system is that the students have ready access to learning resources and means of communication that not only facilitate the array of educational activities but also provide the broad exposure to various other guidance and advisories (Phillips et al., 1998).**

**The support system is imperative in order to facilitate the learning needs of women distance learners, more so because of their distinct characteristics. The majority of them spend most of their time at home and are isolated. They also come from diverse backgrounds, economically, socially and educationally and inevitably, possess a multitude of family and household responsibilities. The support system provided must therefore take into account women's requirements that can minimise the negative effects of isolation and the lack of regular personal contact. Besides that, the support system must enable them to resolve any gender-related learning and administrative problems that may arise. The support system must also be accessible to all students once the access is gained to ensure equalities in the learning outcomes regardless of gender (Hipp, 1997).**

**The importance of the support system in relation to the achievement among women distance learners has been of considerable interest (Hipp, 1997; Burge, 1988; Faith, 1988; Kirkup & Von Prummer, 1990; Burge & Lenskyi, 1990, Taplin & Jegede, 2001). Kirkup & Prummer (1990) revealed that women distance learners demonstrate a much stronger desire for connection with others during the course of their studies. They overcome a variety of practical difficulties in order to spend time with other students and engage in shared learning. This finding is supported by Hipp (1997) who found that women learners are most satisfied with their learning when a high degree of connected teaching is apparent and when there is an opportunity for reflection and critical thinking. The women learners also achieve meaningful learning when they can overcome the isolation and share their learning experiences through interaction and collaboration with peers and faculty. The communication between peers and faculty enables them to establish a strong identity within the university culture and helps them to acknowledge their role as a student (Hipp, 1977). Hipp (1997) further added that for a variety of reasons including schooling and personal experiences and societal mores, many women distance learners exhibit an extreme lack of confidence when returning to tertiary studies. The faculty was found to be effective in establishing and enhancing these students' confidence by providing positive encouragement and constructive feedback on their work (Hipp, 1997). The study by Taplin & Jegede (2001) revealed gender differences in factors that contribute to successful achievements in distance education and these include the areas of organisation and the use of study materials, confidence about studies and independent versus collaborative studies. They suggested the provision of different but appropriate support systems for women and men distance learners.**

**The focus of this study is on the academic support services, which are basically a cognitive function of the support system, and their effects on the achievements of women distance education learners. These services include the annual residential intensive course (a three-week compulsory on-campus residential school), the video conferencing sessions, the access to information and communications technology (ICT) usage for computer mediated communication and linkage to Web resources, and the academic services provided by the 12 regional centres located throughout Malaysia (which include facilities for group studies and a mini-library) and the role of the lecturer/course manager in course facilitation.Many studies have been conducted to investigate how these support services benefit the students academically. Studies on the effects of tutorial services (Amundsen & Bernard, 1989; Naylor et al., 1990; Morgan & Morris, 1994; Stevenson & Sander, 1998), video conferencing sessions (Robson, 1996; Konx, 1997; Daud et al.,**

**2000) and the use of ICT (Zhang 1998; Navarro & Shoemaker, 2000) vis-a-vis the students' achievements have shown that such services result in positive learning outcomes.**

**However, how and to what extent these services affect women distance education learners are not fully understood.**

**The importance of the regional centres (Kember & Dekkers, 1987; Cole & Coats, 1989) and the role of the faculty members (Olcott & Wright, 1995) in the students' academic achievements have also been investigated. Kember & Dekker (1987), for instance, suggested that the regional centres are a valuable academic support which facilitates remediation problems with study materials through the provision of tutorials by lecturers, study group meetings and resources such as the library, the computer centre and the accessibility to audio-visual materials and equipment. Kirkup & Prummer (1990) revealed that women distance education learners register a higher attending rate to the regional centres than men despite various obstacles such as transport-related difficulties, work pressure and commitments faced by them.**

**The role of the faculty as an academic support is also essential as it plays a key role in interpreting the meaning of a course and resolving difficulties through collaborative activities. The faculty has the expertise that provides the access to quality instructional materials, thus ensuring a high level of learnability that leads to the improvement of learning among distance education learners (Olcott & Wright, 1995). Hipp (1997) and Kirkup & Prummer (1990) stressed the importance of the faculty in facilitating learning among women distance education learners. The faculty has a role to play in enhancing self-confidence, overcoming the sense of isolation and helping the students to establish a sense of belonging to the university.**

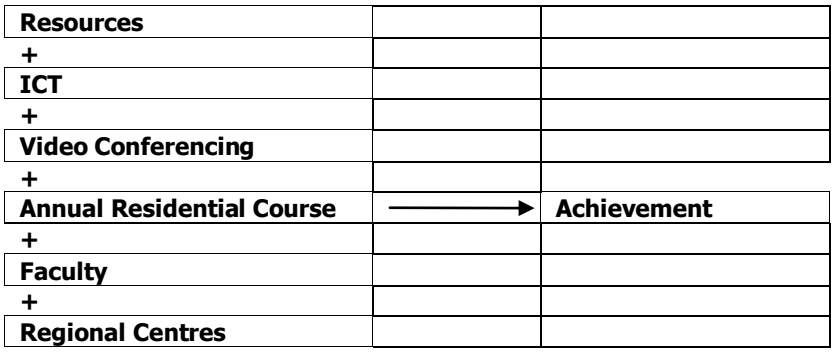


**Figure: 1**
**The proposed model of the learner support system that influences women students' achievements**

**Based on the above literature review, this study proposes six contributing factors, namely, the resources, ICT, video conferencing, the annual residential intensive course and faculty and regional centres as factors that contribute to the academic achievement of the women learners in distance education. The proposed model of the learner support system that influences achievements is depicted in Figure: 1. This study investigates the extent of the contribution of each of the proposed factors in affecting the achievements of women learners. The degree of contribution of each factor will provide useful information to institutions offering distance education and these institutions would accordingly be able to take the appropriate steps to ensure that such factors are given emphasis and priority during the process of planning and development. The institutions could also ensure the necessary improvement of the academic support services to**

**appropriately meet the important needs of women learners. Enhancing and improving these vital services would not only help to improve the women learners' academic achievements but at the same time, also help to increase their knowledge retention, reduce the attrition rate and the sense of isolation as well as improve the sense of institutional belonging among them.**

## METHODOLOGY

**Based on the above model, structured research was designed to look into factors influencing or affecting the women learners' achievements. The operation towards this model involved developing the relevant statements under each of the six categories proposed by the model. The category and the corresponding number of the statements under each category are depicted in Table: 1. All the expected six factors consisted of a total of 40 items and these items were randomly built into the questionnaire with no obvious separation between categories.**

**Table: 1**
**Categories of the support system and number of items**

| Category | Number of Items |
|---|---|
| Resources | 5 |
| ICT | 5 |
| Video Conferencing | 11 |
| Annual Residential Course | 6 |
| Faculty | 7 |
| Regional Centres | 6 |
| TOTAL | 40 |

**The questionnaires were administered to 374 second, third and final year women students enrolled in the arts and science academic courses at the School of Distance Education, Universiti Sains Malaysia (USM) during the annual residential three-week intensive course for the 2003/2004 academic session.**

**A total of 145 questionnaires were returned representing a rate of return of 38.8%. From the 145 women students returning the questionnaire, 79.4% (115) of them were high achieving students who had obtained a CGPA of 3.00 and higher in the previous academic session's final examination.**

**The other 20.6% (30) were the low achieving students who had performed poorly in the examination with a CGPA of 2.00 or lower. The analysis was taken only from data of the high achieving students so the results reflect the factors contributing to the achievement as perceived by them.**

**Factorial analysis utilizing the principal components was chosen based on the assumption that the factors involved in the analysis were not correlated with each other. Based on this assumption, the orthogonal factor approach was chosen. Kaiser's Criteria were used to maintain the eigen values higher than 1.0.**

## RESULTS AND DISCUSSION

**The analysis of the respondents' demographic details revealed that their ages ranged from 31 to 45 years old. The distances to the nearest regional centre were primarily in the range of 0-40 km (59.8%). Most of the students (94.4%) had a computer at home with 68.7% of them possessing Internet connectivity.**

**A total of 68.4% among them were married and the majorities (48.7%) have 1-3 children. Most of them (42.6%) spent a total of 6-10 hours a week on their studies.The exploratory factorial analysis was used to determine the factors affecting the achievement of women learners enrolled in distance education.**

**The items in the questionnaire were analysed in the factorial fashion which was based on the component principle with a varimax rotation. The analysis yielded six main factors with eigen values greater than 1.0 as shown in Table: 2.**

**Table: 2**
**Factorial analysis of items in the questionnaire**

| Factor | Eigen value | % Variance | % Cumulative |
|---|---|---|---|
| 1 | 4.243 | 10.607 | 10.607 |
| 2 | 4.118 | 10.295 | 20.902 |
| 3 | 4.071 | 10.177 | 31.079 |
| 4 | 3.691 | 9.227 | 40.306 |
| 5 | 2.734 | 6.835 | 47.141 |
| 6 | 2.632 | 6.581 | 53.722 |

**Table: 2 shows that the results of the exploratory factorial analysis yielded six factors which explained 53.7% of the variance, a sufficient value for social science studies with these six factors being consistent with the number of categories as proposed in Figure: 1**

**The matrix form of the responses after the varimax rotation is shown in Table: 3. In Table: 3, the measure of the internal consistency evaluated based on the composite reliability technique is shown. A high value of Cronbach Alpha was achieved for each factor indicating the multi-dimensional characteristics of the data. Items with high loading factor of greater than 0.40 are shown in the table.**

**Table: 3 also shows that Factor 1 explains the highest variance at the percentage of 10.6% with 7 items including *Faculty readily provide assistance*, *I received responses from the faculty, The responses form the faculty help me in my assignment, The faculty is readily accessible*, etc. as shown in the various activities involving the faculty emerged through these items. Thus it is evident that the high achieving women distance learners regarded the faculty as the main contributory factor in their learning activities leading to their achievements.**

**The role of faculty in enhancing meaningful learning among women distance learners is well documented (Hipp, 1977; Kirkup & Von Prummer, 1990, Taplin & Jegede, 2001). Connected and collaborative learning with the faculty appears to fit many women students' learning needs.**

**Examples of such learning are from the feedback and constructive comments the students received on assignments, video conferencing, online forum board communication, e-mails and face-to-face tutorials and personal coaching and facilitation they received during the annual intensive course.**

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**Through these collaborative activities, the faculty facilitates women learners via the interpretation and meaning of a course and resolves difficulties through collaborative activities.**

**The collaborative activities with the faculty also enhance the self-confidence and self-esteem of the women distance learners so that they can find a stronger voice in their studies.**

**They can begin to do more than simply give what the faculty wants and start integrating their own knowledge with what the faculty and peers are saying and writing. In this way, their learning becomes more insightful, challenging and rewarding (Hipp, 1977).**

| achieving women distance learners No | Item | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 | Factor 6 | Cronbach Alpha |
|---|---|---|---|---|---|---|---|---|
| 1 | lecturers are willing to help me in my studies | .845 | | | | | | .8921 |
| 2 | I obtain feedback from lecturers when I contact them. | .843 | | | | | | |
| 3 | The lecturers' feedback on the assignments helps mein my studies. | .741 | | | | | | |
| 4 | The lecturers are easily contacted. | .687 | | | | | | |
| 5 | The lecturers are considerate about my status as an adult. | .677 | | | | | | |
| 6 | The lecturers advise me when problems arise in my studies. | .658 | | | | | | |
| 7 | I regularly make contact with lecturers to help me in my studies. | .409 | | | | | | |
| 8 | The intensive course improves my understanding of the study materials. | | .816 | | | | | .8755 |
| 9 | The face-to-face tutorials during the intensive course help me in my studies. | | .801 | | | | | |
| 10 | The intensive course facilitates understanding of the study materials. | | .797 | | | | | |
| 11 | The lecturers help me in my studies during the intensive course. | | .790 | | | | | |
| 12 | I have discussions with my course mates during the intensive course. | | .780 | | | | | |
| 13 | I use the library duringthe intensive course. | | .538 | | | | | |
| 14 | I look for information relevant to my course through the Internet. | | | .881 | | | | .8515 |
| 15 | The information in the Internet helps me in my studies. | | | .825 | | | | |
| 16 | I use e-mail to contact my lecturers. | | | .787 | | | | |
| 17 | The materials from the Internet help me in my studies. | | | .752 | | | | |
| 18 | I use the Internet to have discussions with my friends regarding our studies. | | | .608 | | | | |
| 19 | I use the computer to complete my assignments and reports. | | | .541 | | | | |
| 20 | I revise the materials discussed during the video conferences for exams and tests. | | | | .839 | | | .8403 |
| 21 | I note all the materials discussed during the video conferences. | | | | .764 | | | |
| 22 | I put emphasis on materials discussed during video conferences when revising. | | | | .746 | | | |
| 23 | I pay full attention to lessons during the video conference sessions. | | | | .709 | | | |
| 24 | I attend all the scheduled video conference sessions. | | | | .618 | | | |
| 25 | The materials discussed during the video conferences help me in the exams and tests. | | | | .402 | | | |
| 26 | I read and prepare before attending the video conferences. | | | | | .774 | | .7554 |
| 27 | I make preparations as stipulated in the agenda before attending the video conferences. | | | | | .774 | | |
| 28 | I actively take part in the discussions during video conferences. | | | | | .659 | | |
| 29 | I frequently make contact with the lecturers to help me in my studies. | | | | | .460 | | |
| 30 | I use the facilities at the regional centre's mini library. | | | | | | .732 | .7878 |
| 31 | I use the multimedia materials available at the regional centre. | | | | | | .665 | |
| 32 | I know who my resident tutor at my regional centre is. | | | | | | .635 | |
| 33 | Past years' tests and examination questions available at the regional centre help me in my studies. | | | | | | .633 | |
| 34 | I use the regional centre as a venue to have discussions with my friends. | | | | | | .476 | |

**Factor 2 which explains 10.3% of the variance can be categorised as an annual residential intensive course. All of the items in this category such as *The intensive course enhances my understanding of the course content, The face-to-face tutorials during the intensive course help my learning, The faculty helps my learning during the intensive course, I discuss issues with peers during the intensive course* relate to the activities carried out during such a course. The annual residential intensive course consists mainly of face-to-face tutorial sessions with the lecturer for course content facilitation. Personal face-to-face academic assistance outside the classroom tutorials is also provided by the lecturer to mediate problems related to the course contents. Students also have the opportunity to form study groups for the purpose of collaborative discussions and the exchange of learning experiences. All these activities are perceived important by the women distance education students in enhancing their academic performances. The intensive course also provides a platform for women learners to overcome their sense of isolation, and assist them where socialising issues are concerned through sharing their experience with peers; it also creates a sense of belonging to the institution.**

**Factor 3 that explains 10.2% of the variance can be categorised as ICT. All the items in this category such as *I find information relevant to my course in the Internet, The information in the Internet helps me in my studies, I use the e-mail to communicate with the faculty, The materials in the Internet help me in my studies, I use Internet to discuss issues regarding the course with my peers* are all related to the usage of ICT in their learning. Universiti Sains Malaysia has made available the electronic portal that allows not only the posting of the regular course announcements but also retrieval of course-related information and resources. And most importantly, the portal also allows the asynchronous communication between student and peers and student and faculty to facilitate learning. It is evident from this finding that the women high achievers utilised this technologically advanced support service to assist them in their learning and that the usage of the electronic portal has some significant bearing on their achievements.**

**Factor 4 and Factor 5 that explain 9.2% and 6.8% of the variance respectively can be categorised as video conferencing. Out of 10 items in these two categories, all items except one relate to the video conferencing activities. Factor 6 which explains 6.6% of the variance could be categorized as the regional centre. All the items in Factor 6 relate to the activities at the regional centres.**

**The factorial analysis as depicted in Table 3 reveals that the various items can be categorized into six categories but upon detailed analysis of the items, only five factors emerged and these are the faculty, the intensive course and ICT with an almost equal percentage variance between them. The last two, with a lower percentage variance each, are the video conferencing and the regional centres. One cannot draw hard and fast conclusions from the findings of this study but the analysis does show some distinct patterns regarding the factors that effect the achievement of women distance learners and they provide insight into their needs which have to be resolved in order to enable them to succeed.**

## CONCLUSION and SUMMARY

**This study on the dimensions of the support system provided by the School of Distance Education (SDE), Universiti Sains Malaysia (USM) to its women learners reveals that the role played by the faculty, the provision of the intensive course, the electronic portal, video conferencing and to a much lesser extent, the role played by regional centres, affect their achievements. However, in order to ascertain the support that is appropriate to resolve their needs, one has to know more about their experiences in education and learning, self-image, personal changes as well as the perceived catalyst for change and impediments to growth. There is a need to be consistent in the approach taken by the**

**institution to its women distance education learners so that it is not simply left to chance whether or not the support is available to them.**

**Financial Support:** **This research is supported by the Universiti Sains Malaysia Short-Term Grant account No: 304/PJJauh/635015**

**Authors' Note:** **This article is published in TOJDE journal as cited here. "The support system in Distance education: Factors affecting achievements among women, Turkish online Journal of Distance Education-TOJDE, Vol: 6, Number: 4, Article: 11.**

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# LEARNING **ON THE GO**

## TIPS AND TRENDS IN M-LEARNING - A REPORT

A report by Docebo | November 2014

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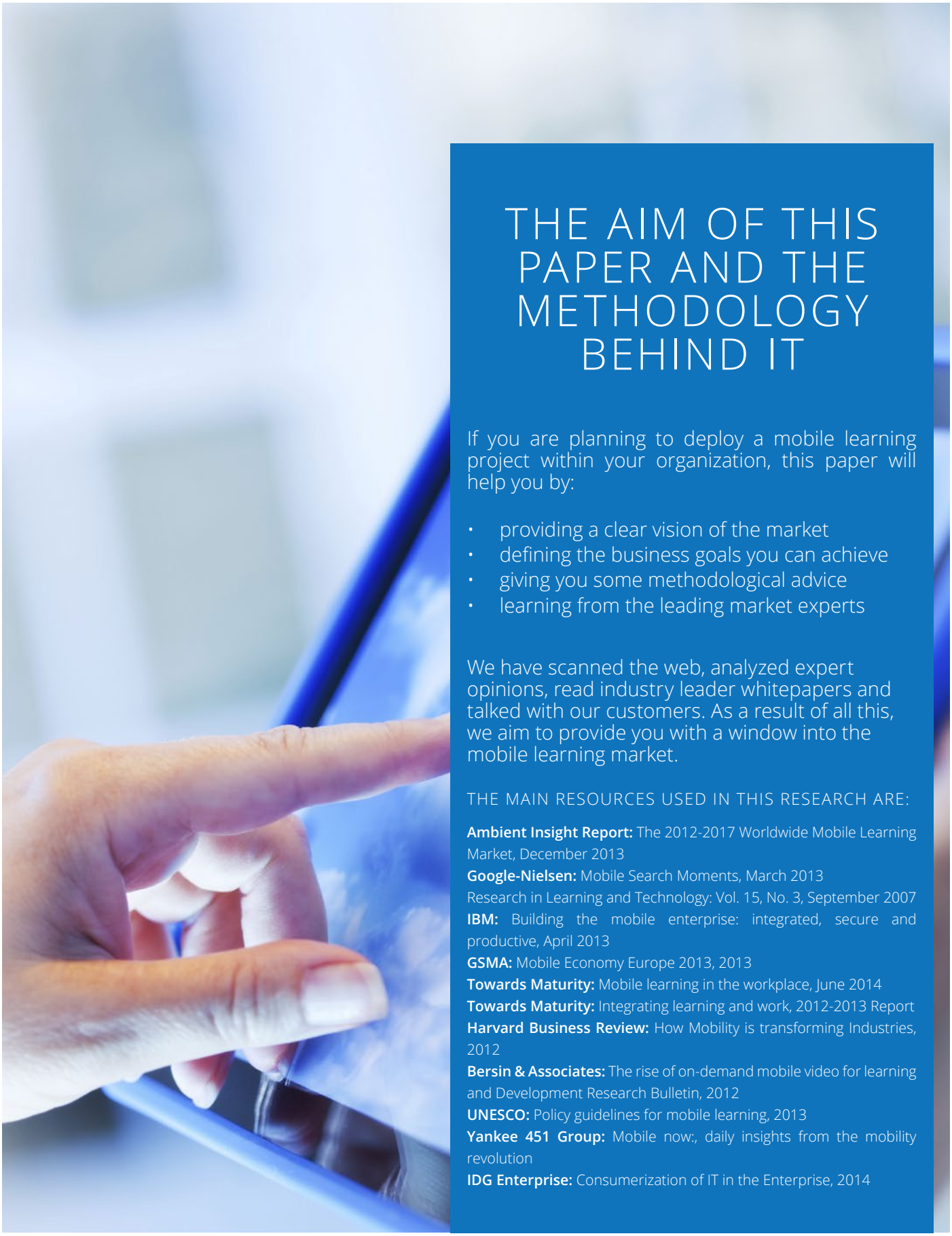

# THE AIM OF THIS PAPER AND THE METHODOLOGY BEHIND IT

If you are planning to deploy a mobile learning project within your organization, this paper will help you by:

- providing a clear vision of the market
- defining the business goals you can achieve
- giving you some methodological advice
- learning from the leading market experts

We have scanned the web, analyzed expert opinions, read industry leader whitepapers and talked with our customers. As a result of all this, we aim to provide you with a window into the mobile learning market.

## THE MAIN RESOURCES USED IN THIS RESEARCH ARE:

**Ambient Insight Report:** The 2012-2017 Worldwide Mobile Learning Market, December 2013
**Google-Nielsen:** Mobile Search Moments, March 2013
Research in Learning and Technology: Vol. 15, No. 3, September 2007
**IBM:** Building the mobile enterprise: integrated, secure and productive, April 2013
**GSMA:** Mobile Economy Europe 2013, 2013
**Towards Maturity:** Mobile learning in the workplace, June 2014
**Towards Maturity:** Integrating learning and work, 2012-2013 Report
**Harvard Business Review:** How Mobility is transforming Industries, 2012
**Bersin & Associates:** The rise of on-demand mobile video for learning and Development Research Bulletin, 2012
**UNESCO:** Policy guidelines for mobile learning, 2013
**Yankee 451 Group:** Mobile now:, daily insights from the mobility revolution
**IDG Enterprise:** Consumerization of IT in the Enterprise, 2014

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# Executive summary

The facts are impressive: mobile devices are proliferating around the world. More people are using mobile devices for more things – and, at present, there seems no end to this trend.

The advent of this mobile phenomenon is changing enterprises worldwide, encompassing all sizes of businesses, industries and all sectors of the economy. However, not all enterprises are taking advantage of mobile technologies at the same level. Some organizations simply make use of mobile devices, while other organizations have a holistic approach and can be regarded as fully integrated mobile enterprises.

One of the uses for mobile devices is for learning, especially job-related learning.

The worldwide market for mobile learning products and services is said to have reached $5.3 billion in 2012. The five-year compound annual growth rate (CAGR) is 18.2% and revenues will more than double to $12.2 billion by 2017.

When it comes to developing mobile learning (m-learning), it is vital to remember that m-learning is not synonymous with e-learning. So, existing e-learning materials need to be redeveloped for m-learning applications.

Understanding the end user is paramount to building a successful learning strategy. Different learners respond differently to digital learning, based upon how they prefer to learn and the content that is being presented to them. As the workforce in the western world ages, "millennials" (those who have grown up in today's technological age) are entering the workforce. Learning developers need to take both of these potential audiences into account when developing m-learning materials. There needs to be a comprehensive strategy around how your learning is approached for tech-savvy learners and how to incorporate less tech-savvy learners into the fold.

This report outlines some of the ways to create a blended learning strategy that encompasses a wide variety of delivery methodologies. In doing so, developers should be keenly aware of their audience. Learning materials should be designed for specific media and should be aligned to organizational competencies.

The bottom line is that building m-learning programs is all about better enabling learning. Think it through. Then get creative - and know your audience.

***Valentina*** *has a unique background in Instructional Design. She is the creator of all of Docebo's courses in the Docebo LMS course catalog, and has extensive experience in the following: Safety in the workplace, Compliance Training, dissemination of organizational models and control systems, Privacy Training, and the development of soft skills. Valentina can be contacted on LinkedIn or via Twitter.*

# The m-universe: numbers and facts

*by Valentina Piccioli*

## How do people "feel" about their smartphones?

Mobile has evolved so much so that we have, at our fingertips, not only facts and numbers that show "how much" or "how often" people use their mobile devices but also "how they feel" about them. Data about "feelings" towards mobile devices is overwhelmingly positive - according to the Pew Research Center, 89% of adult Americans don't worry about the time they spend using their phone:

***Q29*** *Do you ever worry that you spend too much time using your phone, or do you not worry about this?*

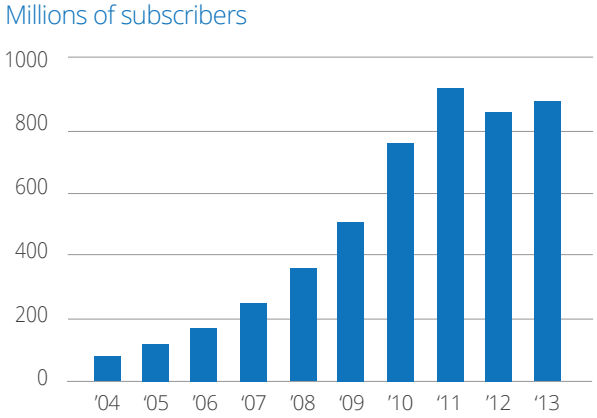
***Based on cell phone owners [N=1,954]***

| | CURRENT | |
|---|---|---|
| % | 11 | *Yes, worry* |
| | 89 | *No, do not worry* |
| | 0 | *Don't know* |
| | * | *Refused* |

The adoption of smartphones is a continuously growing trend not only in **mature markets** (such as the USA) but also in **emerging markets**. According to different sources, the second-biggest mobile phone market by the end of 2014 in terms of numbers of users will be India - and it will surpass the USA (while the first remains China).

*Title: India's mobile market- Mobile subscribers (in millions)*

*[1] http://www.pewinternet.org/about/*




*Source: Reuters July 2013*

Demographic data about smartphone ownership shows that the number of younger adults who own a Smartphone is growing and, surprisingly, that there is growth seen in the **mid-forty** and **mid-fifty** age groups.

According to Nielsen, 51% of mobile owners over the age of 55 now own smartphones. Moreover, "smartphone penetration continues to grow every day, with 85% of recent acquirers picking smartphones when purchasing new handsets."

*M-learning is, without a doubt, the future for e-learning as smartphones become the BYOD of choice for work and play, and a virtual extension of the self. On-demand performance support, on-the-go knowledge checking, and learning at any time will define our next generation of students and workers. Flexible, immediate, portable, effective, engaging - that's mobile!*

*Roberta Gogos, Head of Marketing, Docebo*

# Key facts

Total mobile registered lines in North America will exceed 406 million by 2018

Total mobile registered lines in Mexico will exceed 115 million by 2018

Active mobile app users in Hong Kong will exceed 9 million by 2014

Mobile Data Revenue in the UK will exceed £12 billion by 2018

Total mobile registered lines in Europe will near 1.3 billion by 2018

India is among the world's fastest growing smart-phone markets

*Source 451 Research Global Mobile Forecast, June 2014*

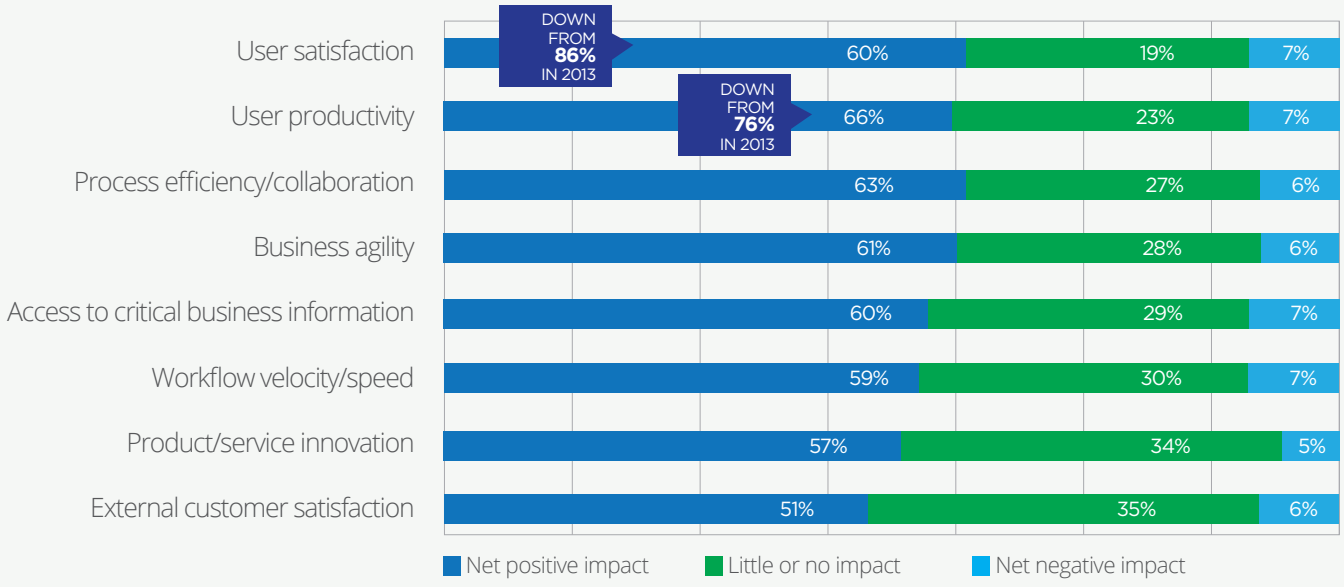
## Mobile is an experience

In 2013 we assisted in making mobile devices the most common web access tool, surpassing the PC for the first time. The mobile experience is eclipsing the desktop experience, not only in our private lives but also in the workplace. And the reasons are obvious: mobile phones are always "on", the user can access his/her handheld device 24/7 and they are more **personal** than traditional computers.

According to Gartner, **consumerization** is what drives tablet adoption in the enterprise.

*From Gartner IT Glossary:* Consumerization is the specific impact that consumer-originated technologies can have on enterprises. It reflects how enterprises will be affected by, and can take advantage of, new technologies and models that originate and develop in the consumer space, rather than in the enterprise IT sector. Consumerization is not a strategy or something to be "adopted." Consumerization can be embraced and it must be dealt with, but it cannot be stopped.
Source: http://www.gartner.com/it-glossary/consumerization/

Mobility is now a business "fact of life". For many companies, getting mobile strategies off the ground and making them successful is the highest priority for 2014. Pilot projects have, in fact, demonstrated that mobile applications serve as a more effective sales training and management platform. And, according to different sources, the consumerization of IT in the enterprise creates a positive impact in terms of: user satisfaction, user productivity, process efficiency/collaboration, and business agility.




**Q.** What type of impact will the consumerization of IT have on the following areas of your business over the next 12 - 18 months?

*Source: IDG Enterprise 2014 Consumeritation of IT in the Enterprise http://www.scribd.com/fullscreen/212942014?access_key=key-qdxu28ngrbvpny-fzo65&allow_share=true&escape=false&show_recommendations=false&view_mode=scroll*

# A mobile device is as essential as a morning cup of coffee

## *90% American workers use their own smartphones for work*

*Source: Cisco http://www.ciscomcon.com/sw/swchannel/registration/internet/registration.cfm?SWAPPID=91&RegPageID=350200&SWTHEMEID=12949*

The BYOD (bring your own device) trend is accelerating the impact that mobile technologies are having on the enterprise.

> ***From Wikipedia: Bring your own device (BYOD)*** *refers to the policy of permitting employees to bring personally owned mobile devices (laptops, tablets, and smart phones) to their workplace, and to use those devices to access privileged company information and applications. The term is also used to describe the same practice applied to students using personally owned devices in education settings.*

According to IBM, the benefits of allowing BYOD within an organization are:

**Increased productivity and innovation:** *Employees are more comfortable with a personal device and become expert at using it — making them more productive. Personal devices tend to be more cutting-edge, so the enterprise benefits from the latest features. Also users upgrade to the latest hardware more frequently.*

**Employee satisfaction:** *Your people use the devices they have chosen and invested in — rather than what was selected by IT. 83 percent of users considered their mobile device more important than their morning cup of coffee. Allowing employees to use personal devices also helps them avoid carrying multiple devices.*

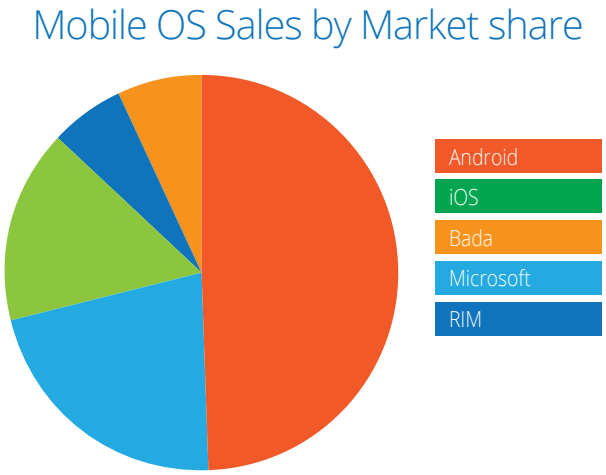
**Cost savings:** *BYOD programs sometimes save budget by shifting costs to the user, with employees paying for mobile devices and data services. However, this often results in few savings at best, so do not base your decision primarily on anticipated savings.*

*Source IBM :http://www.ibm.com/mobilefirst/us/en/bring-your-own-device/byod.html*

### The operating system battle

According to Gartner, by 2015, over 80% of handsets in mature markets will be smartphones and Google's Android operating system will continue to lead the market through to 2016.

In smartphones, Windows could surpass RIM Blackberry to become the third largest player, and could be same size as Apple in units by 2015.




*Based on Gartner Forecast: Mobile OS Sales by Market Share (2009-2016)*

### App Economy

According to the European Commission the number of app downloads grew a staggering 80% worldwide in 2013. Europe showed a 68% growth rate and the USA, 36%.

*"In 2013 Apps revenues reached EUR 12bn worldwide and EUR 2.75bn in Europe. China's App economy 'woke up' only recently. From nearly no downloads until 2010 China has surpassed both Europe and the USA in 2013 with a total of 23bn downloads and a growth rate of 135% for that year. However, revenues have not yet caught up. While China accounted for 26% of worldwide App downloads in 2013, it accounted for a mere 8% of revenue." Source: European Commission*

The mobile ecosystem (both directly and indirectly) generated around 2.2% of Europe's GDP in 2012, while also directly contributing 390,000 jobs to the European economy.

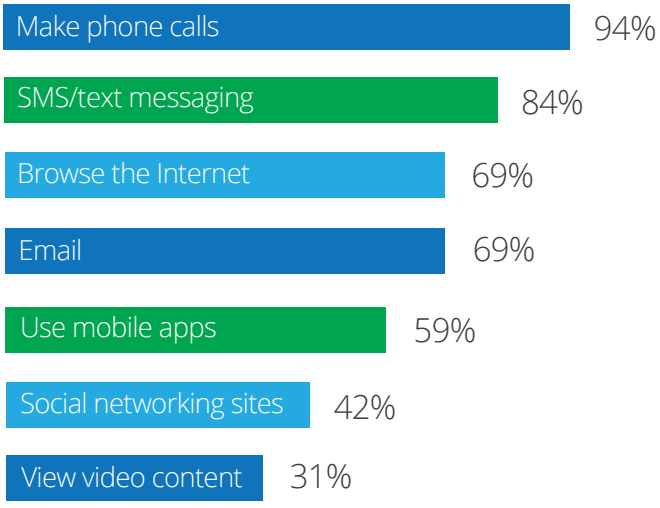
# Becoming a mobile enterprise

*by Valentina Piccioli*

The mobile app market is big business. There are millions of apps currently on the market and the number of business-related apps is growing by the day. As mobile devices evolve with increasing functionality, enterprises are becoming more interested in mobile apps that can replicate high-end functions that were previously limited to laptops and desktops, and also to leverage new features that are unique to mobile. The usage of mobile devices has gone far beyond calls and emails. Mobile apps are now part of one's daily work life.

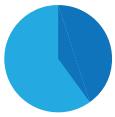
## Mobile Device Usage Goes Way Beyond Calls and Email

PERCENTAGE OF RESPONDENTS WHO INDICATED THEY REGULARY USE SPECIFIC FUNCIONALITY




*Source: IDG Global Solutions*

Mobile is strategic to business and, according to different sources, the top two drivers for investments are:



**40%** of the overall workforce is now mobile

- Improving responsiveness to customer
- Mobile-enabling existing business applications

## Enterprise Mobile Strategy

The ways in which enterprises adopt and implement mobile strategies are diverse. We can simplify this by defining three scenarios:

**Business to Employee**

- Higher productivity
- More effective collaboration
- Flexible handling of business processes

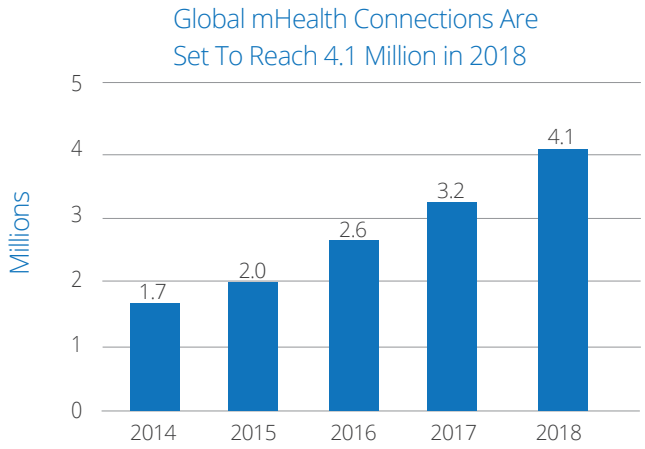
**Business to Consumer**

- New distribution channel
- Quality service
- Effective communication
- Customer loyalty

**Machine to Machine**

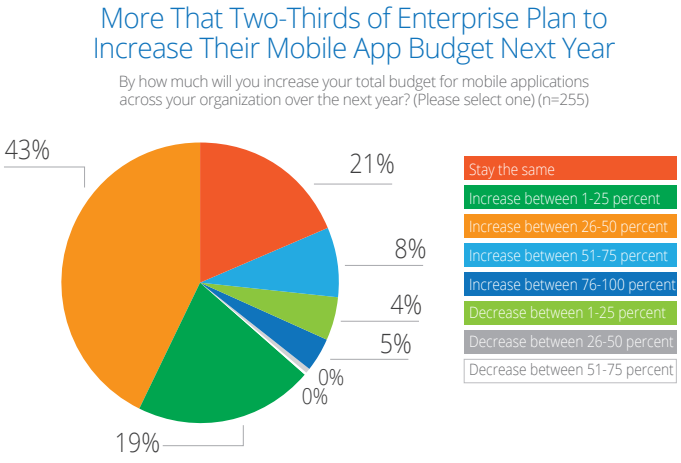
- Exchange data
- Sensors in the Internet supply a wide range of information

No industry is immune to the impact of mobile devices and almost any business can take advantage of their capabilities. Obviously industries where employees are naturally mobile have been are more affected by the rise of smartphones and tablets. Indeed, many of these were the early adopters. In particular, we see mobile impacting healthcare, real estate, restaurants, retail, banking and finance. And, in **education**, while it is not a vertical where users are mobile per se, we are nevertheless seeing a huge adoption rate for mobile.




*Source: 451 Research's Global Mobile Forecast, June 2014*

Small and midsize companies are early adopters of mobile applications for businesses, and, according to recent surveys, more than two thirds of enterprises of all sizes are planning to increase their mobile services budget in 2015.




*Source: 451 Research's 2014 US Mobile Apps & Cloud Survey, June*



Cloud computing and SaaS applications are increasingly important within a business mobile strategy. While mobile devices are considered a "mission-critical" technology for mobile workers by the vast majority of enterprises, **cloud computing** and **SaaS applications** are increasingly seen as equally important within any business mobile strategy. According to Yankee Group:

*"The rise of mobile and cloud services is pushing demand among enterprises higher than ever, while at the same time bolstering the bottom lines of vendors serving the space. That was most evident recently when cloud provider Salesforce.com's second quarter earnings surpassed estimates."*

As a consequence, the most important investments with regard to any mobile apps projects over the next few years are going to be in the areas of:

- mobile application management
- mobile application development platforms
- mobile API management
- mobile testing platforms
- mobile backend-as-a-service platforms

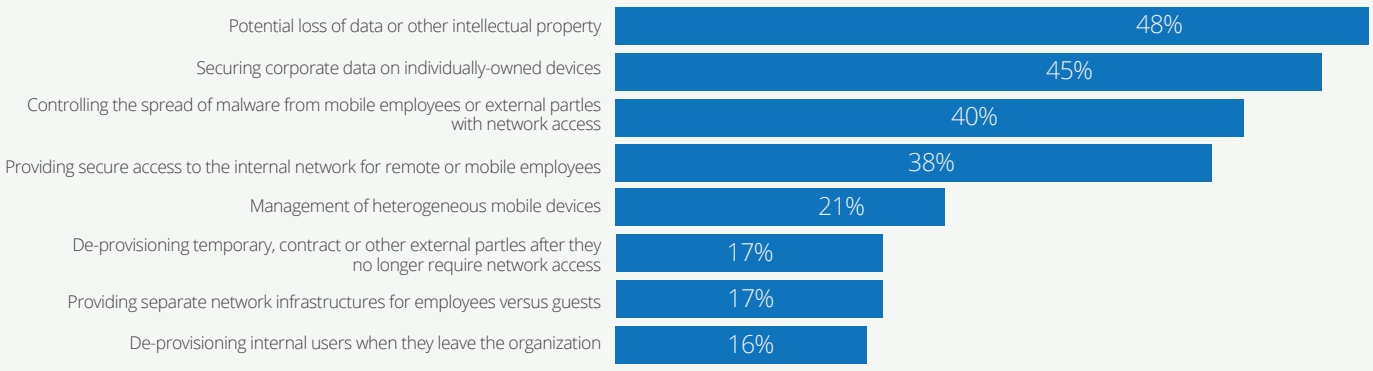
## Concerns about enterprise mobility

There are some common concerns about the adoption of an enterprise mobile strategy. These concern:

- Security
- Compliance
- Complex management for multiple devices
- Lack of awareness of solutions
- Unclear ROI

### Nearly Half of US IT Decision-Makers Worry About Data Loss When Supporting Remote Workers

Which security Issues, in particular are you referring to? (Please select up to three) (n=282)




*Based: Asked to those who think security is an obstacle to supporting remote and mobile workers.*
*Source: 451 Research's 2014 Enterprise Mobility: IT Decision-Maker Survey, June*

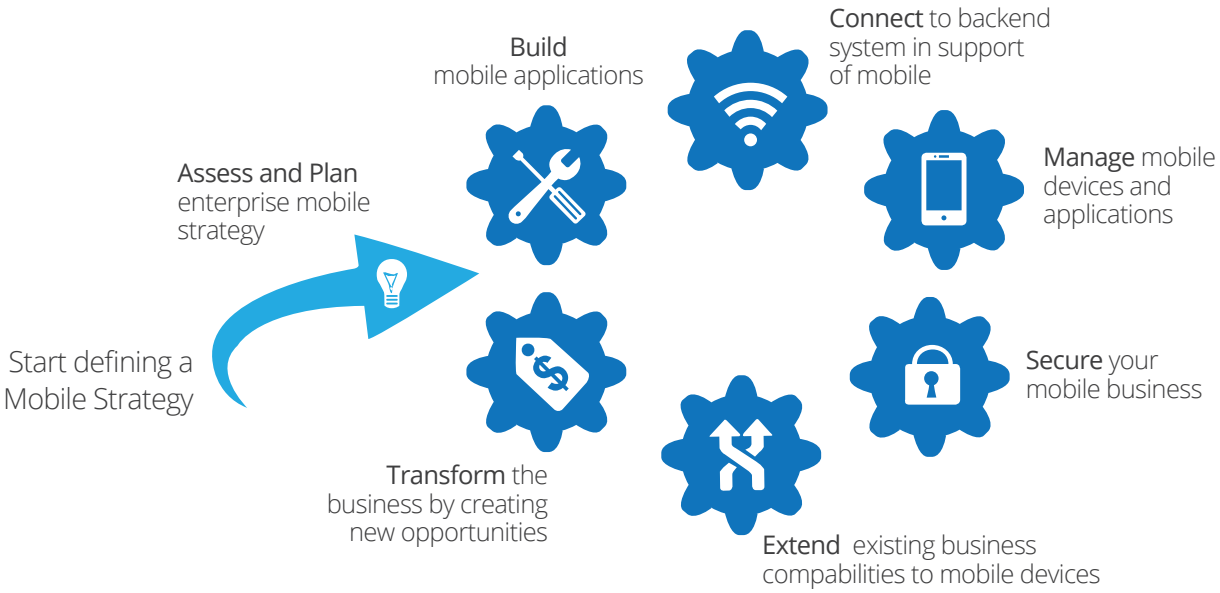
# Conclusion

Mobile is changing enterprises worldwide, regardless of the business size or industry. However, not all enterprises are taking advantage of mobile technologies at the same level. Some organizations simply make use of mobile devices, while other organizations have a holistic approach and can be regarded as fully integrated mobile enterprises.

*"Organizations that are mobile enterprises have enabled flexible and scalable enterprise-wide mobility — for employees and customers — using a holistic, integrated approach. By taking an integrated approach that aligns mobility initiatives with each other and with business models, goals and objectives, these organizations are able to provide instant access to business-critical data and applications for a variety of devices, while still maintaining high levels of security."*

*Source: IBM - White Paper- Building the mobile enterprise: integrated, secure and productive*

## How to define a Mobility Strategy: an infographic




*Source: IBM*

*Born in Taranto and a graduate in Telecommunications Engineering from the University of Bologna, Francesco comes from a technical background and has more than 10 years of experience in international IT projects, management and human resources.*

*He specializes in the development of web applications, and has been working for Cezanne Software (a cloud solution for HR Management) since 2007.*

*As a Project Manager for Cezanne OnDemand in the Italian market, he is responsible for the analysis and management of Talent Management projects in Italy, UK, Spain and Portugal.*

# Smart Working: reinvigorating work with new technologies

*by Francesco Minichini Cezanne on Demand*

The spread of technologies such as smartphones, tablets and cloud systems have irreversibly changed the way we work and interact. These channels are so widespread that they are now associated with traditional channels - consider how many people don't have a smartphone and how many people regularly send email from their phones.

These new social, technological, demographic and environmental trends are radically changing the organizational and management structure of your company's human resources. This is why HR departments are playing an extremely important role in understanding and taking advantage of these changes.

Implementing a working model based on the principle of "smart working" which is capable of including these new technologies brings great benefits in terms of reduced costs and increased productivity. It also creates the foundation for a more flexible and mobile working structure.

An increasing number of organizations are implementing more flexible ways of working by decreasing, or stopping completely, limitations in terms of schedule and workplace. With this new policy comes a new approach to working.

The employee is now capable of choosing her/his schedule and where to work, as long as s/he fulfills her/his duty. This strategy has proved itself to be an effective incentive to achieving results.

We know that this kind of change may require time to take effect, especially in traditional organizations. Moreover, there may be some opposition to the change because it is difficult to modify habits. This is one of the reasons why "smart working" is not yet fully accepted in a work culture that is still tied to old processes. But, like any kind of change, this change needs a technological and organizational impetus in order to coordinate all the stakeholders involved and to overcome any opposition to innovation. Unfortunately, many organizations are bound by procedures that limit their chances of creating new opportunities.

Nonetheless, many organizations - even in traditional work cultures such as those found in much of Europe - have started "smart working" projects and understand the mutual benefit of this approach for both the company and its employees. Employees are granted more freedom concerning the way they carry out their duties as long as their goals are reached. Furthermore, employees may more easily find an acceptable work-life balance with this kind of flexibility.

Organizations experience significant benefits in terms of greater competitiveness, satisfaction and workforce productivity, thanks to the increase in flexibility and autonomy concerning working spaces, schedule and tools.

While evaluating the "smart working" approach, potential obstacles have to be considered. Research shows that remote workers are more productive than those working inside company offices. They tend to ask for fewer vacations and are more satisfied, thus reducing the possibility of their leaving the company. However, there's also the risk of the workers losing connection with the organization, along with, possibly, opportunities for increasing productivity and for career progression.

**What are the key elements to consider when making the transition to a more flexible workflow?**

- **Focus on the people:** it's important to conduct an in-depth analysis on the requirements of each employee. All your team members should be involved in the process of your company's cultural change in order to understand how best to meet productivity needs and employee satisfaction.
- **Change management:** to change your workflow it's necessary to include some training for your managers and HR managers, who are often attached to old leadership styles.
- **Engagement:** all the departments in your company should be involved in the re-design of the workflow in order to determine the most efficient and effective procedures and timing when making the shift towards "smart working".
- **Highlight results:** the benefits resulting from "smart working" should be monitored and shared within the organization and with the management. This is the best way to achieve the engagement you will need in order to start cultural and behavioral change - and continuously improve.
- **Appropriate, innovative and adaptable IT tools:** the market is encountering an increasing number of millennials - people who were born surrounded by modern technology and are used to interacting with such tools in their day-to-day activities. This is another reason why organizations cannot ignore the latest technological developments - to avoid missing out on potentially hiring such talent. Tools must be a resource for people and should perfectly integrate with their daily working activities. It is not sufficient to give your employees a corporate laptop or smartphone. It is vital to create the ideal technological working conditions in order to keep your employees always connected with each other, so that they can easily share ideas, documents and files.

Modern HR management software usually has a number of features that simplify communications within the organization, making remote working easy for employees.

HR portals and social groups give employees an interactive space in which to communicate, share information and work with other colleagues in a more efficient and collaborative way. Manuals, corporate policies or standard forms can be loaded to a safe area of the HR portal, in order to create a single repository where employees can find all the documents they need.

An interesting consequence of "smart working" is the development of "working groups". These are basically safe platforms where colleagues can share information and documents, and collaborate in an intuitive, effortless way with different people in real time. The result is a tangible improvement in the employee's productivity.

# Mobile learning: right here, right now

*by Valentina Piccioli*

M-learning is something that is happening right now, all over the world, in all industries and in all sized enterprises. The main driver for this revolution is basic consumer behavior - there's at least one smartphone in each hand.
*"In contrast to the previous technology revolution of the PC and later the laptop, this chain of events is happening first at home and then flowing into the workplace."*
*Gary Woodill, Senior Analyst, Float Mobile Learning*

This adoption of mobile learning happened faster than expected. In fact:

*"Those with several years' experience in using technology-enabled learning report higher levels of mobile usage, but we also see a spike in usage in those that are new to using learning technologies, implying that some are adopting* ***mobile solutions as part of their first steps with learning technologies.****"*
*Towards Maturity- Mobile learning in the workplace*

But what is m-learning? Even if there much disagreement on the definition of m-learning, most will agree that it's **more than simply learning on a mobile device**. We are already used to seeing people moving around with their laptops and taking lessons or training sessions whenever and wherever they can. We could say that we are already over this first generation of ubiquitous learning.

Mobile learning is learning **on-the go** and learning at the **point of need**, but it is also a way of **consuming content**, a **social** experience and an **informal** way to learn. The vast majority of mobile apps represent on-demand content, performance support or education.


*We were given legs for a specific reason: to move. Allowing people to take classes wherever they go is the ultimate game-changer in learning.*

*Dario De Angelis, Digital Marketing Manager, Docebo*

When talking about m-learning we must take into consideration m-learning as a training methodology, a social trend and a business game changer. We must also take into account that:

- M-learning transforms traditional training, supports performance at the point of need and, is informal - and social - by nature.
- The use of m-learning in the non-institutional learning context appears to be the most successful strategy to adopt for now.

*"Drawing from the literature on both mobile learning and informal learning, Jones et al. (2006) proposed six reasons why mobile informal learning might be motivating: control (over learners' goals), ownership, learning-in-context, continuity between contexts, fun and communication."*
*A.Jones and K.Issroff, Motivation and Mobile Device*

Finally, we have to consider **m-learning as an evolutionary trend**. It not only grows in numbers but changes its face each time there is a new technological opportunity or new business model. Let's think about m-learning in two years from now. We can imagine that, besides smartphones and tablets, we will also have smart wearable devices such as smart watches and smart glasses.

*"These devices are coming and they will change the ways we look at mobile learning."*
*David Kelly, Training, Learning, and Performance Consultant*

## Conclusion:


*As a mother, I hope to see m-learning in the most unlikely places, for example, I expect to see a mother who, while watching her son playing football, can be found on her iPad looking at all the information she needs to become a football expert! This is also mobile learning.*

*Valentina Piccioli, Partner Network Manager, Docebo*

## M-LEARNING TERMS YOU NEED TO KNOW!

**Mobile Application**
Most commonly known as an app, is a type of application software designed to run on a mobile device, such as a smartphone or tablet.

**HTML5**
HTML5 is a W3C specification that defines the fifth major revision of the Hypertext Markup Language (HTML). One of the major changes in HTML5 is in respect to how HTML addresses Web applications. All smartphones and tablets already support some version of HTML5, although there are many differences of detail depending on browser and OS versions.

**Just in Time Learning**
Just-in-time learning systems deliver training to workers when and where they need it.

**Geolocation**
Geolocation is used to identify the geographic location of an object, usually a mobile phone or other device connected to the Internet. Knowing an individual's location is a key enabler for the delivery of highly relevant contextual information.

**Bring Your Own Device (BYOD)**
BYOD refers to the policy of permitting employees to bring personally owned mobile devices to their workplace, and to use those devices to access privileged company information and applications. The term is also used to describe the same practice applied to students using personally owned devices in education settings.

**Responsive Design**
Responsive Design or adaptive design is one of the advantages enabled by HTML5.

We can now develop a single e-learning module which will work on all devices.

# Mobile learning trends and forecast

*by Valentina Piccioli*

According to research on the mobile learning market conducted by Ambient Insight, the **worldwide market for mobile** learning products and services reached **$5.3 billion in 2012**. The five-year compound annual growth rate (CAGR) is **18.2%** and revenues will more than double to **$12.2 billion by 2017**. (Ambient Insight's 2012-2017 Worldwide Mobile Learning Market Forecast).

The most relevant drivers for this impressive growth can be found in the mobile learning market itself (and even the learning market). The evolution of the mobile market is making the penetration of m-learning possible by default: not only are the numbers of people who own a smartphone or tablet growing (the audience is getting bigger), but the way people can buy learning contents is simplified by new direct carrier billing agreements.


But, according to Ambient Insight there are also some catalysts for mobile learning's growth more strictly related to the evolution of the learning market:

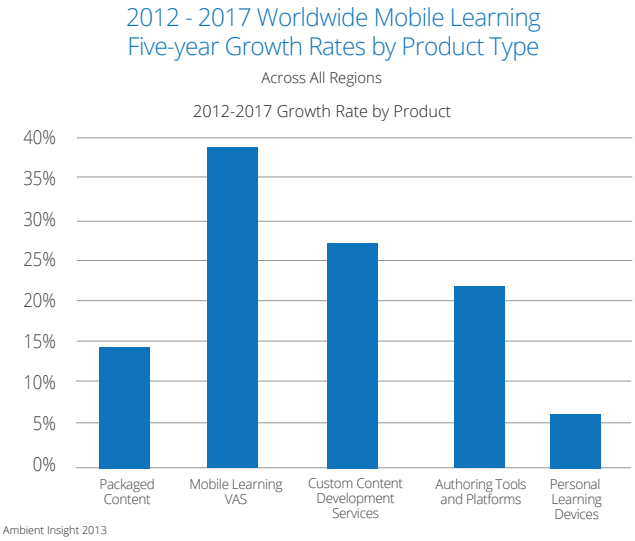
- The explosion of mobile learning value-added services (VAS)
- The strong consumer demand for mobile learning
- The large scale tablet adoption in consumer and academic segments

Having stated that the demand for mobile learning is strong, let's examine what consumers in the m-learning market are looking for - notably:

- Packaged content
- Value added services (VAS)
- Custom content development services
- Authoring tools
- Platforms

Consumers are direct buyers for packaged content (B2C business model) and VAS, while enterprises and institutions are also looking for content development services, authoring tools and platforms.

The table below, from Ambient Insight, shows just how fast growth of mobile learning value added service (VAS) is:




*Source: Ambient Insight's 2012-2017 Worldwide Mobile Learning Market Forecast*

That means that consumers dominate this market at a worldwide level (although there will be differences in the general trends between different geographies).

## Worldwide Market for Mobile Learning

| $5.3B in 2012 | 18.2% (CAGR) | $12.2B by 2017 |
|---|---|---|

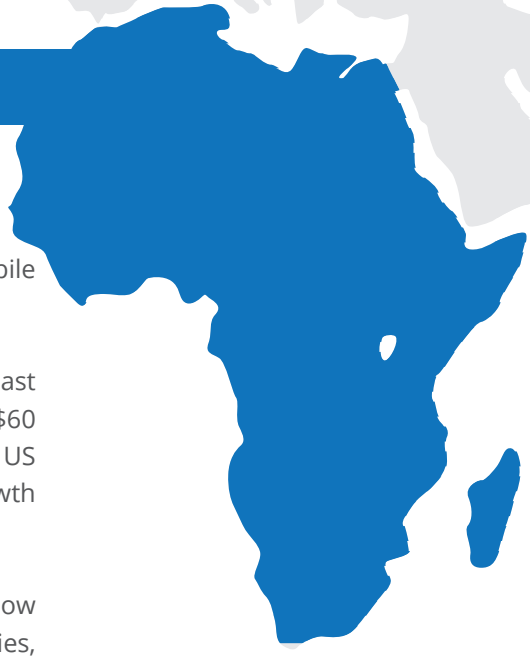
**In examining each geographical area we will compare the CAGR for the mobile learning market and revenue, and then discuss the strongest drivers for each market.**

| 5-year Compound Annual Growth Rate (CAGR) for the Mobile Learning Market | |
|---|---|
| Africa | 38.9% |
| Latin America | 32.5% |
| Asia | 21.2% |
| Middle East | 18.4% |
| Eastern Europe | 14.7% |
| Western Europe | 9.0% |
| North america | 7.6% |

| Revenues by 2017 | |
|---|---|
| Asia | $ 6.8 billion |
| North America | $ 2.1 billion |
| Latin America | $ 1.4 billion |
| Western Europe | $ 885.1 million |
| Africa | $ 530.1 million |
| Middle East | $ 205.4 million |
| Eastern Europe | $ 193.1 million |

**Africa** has the highest mobile learning growth rate in the world, but **Asia** will generate the highest revenues for mobile learning on the planet. **North America** follows the typical pattern of a mature market: low growth rate, with high revenues generated.

# AFRICA



Several countries in Africa have mobile penetration rates at over 100%.

The African mobile telecom market is forecast to grow from a combined value of over US $60 billion in 2013, to a value in 2020 of almost US $234 billion – with a compound annual growth rate (CAGR) of 21.27%.

Large rural populations across Africa are now avid users of mobile learning technologies, while relatively few have experienced self-paced e-learning on a PC.

Telecoms have a significant advantage in developing economies as they are often the only electronic payment gateway.

## A continent of mobile operators

At the end of 2Q 2013, the total subscriptions in Africa reached 863 million.

Mobile network operators will generate the largest portion of this revenue.

One of the five major catalysts driving the growth of m-learning is the boom in mobile learning VAS.

Telecoms are major players in the mobile learning market in Africa because of their own app stores, direct carrier billing agreements with device makers, and their mobile learning VAS offerings.

# ASIA

At 87% of the population, smartphone penetration is highest in Singapore and Hong Kong, followed by Malaysia (80%), Australia (75%) and China (71%), said a Nielsen report.

The device makers and telecoms are now major competitors in the Asia mobile learning market.

Mobile learning is their primary learning technology and they may never be exposed to other learning products.

## The perfect pair: inexpensive smartphones and 4G networks

The mobile internet user base in India will more than treble to 480 million by 2017 from over 155 million today.

It is common in Asia for general-purpose device makers to partner with educational publishers and offer education bundles with digital content preloaded on general-purpose tablets.

Mobile learning VAS products are now used by over 200 million subscribers in Asia.

# EASTERN EUROPE

While the aggregate growth rate is 14.7%, four countries have higher growth rates: Azerbaijan, Kazakhstan, Moldova, and the Ukraine. (Ambient Insight)

The Azerbaijan economy has been markedly stronger in recent years and, not surprisingly, the country has been making progress in developing its ICT sector (Wikipedia).

Ukraine with more than 59 million of users is at number 22 in the worldwide list of countries for mobile penetration. (The World Factbook)

The leading mobile operator in Ukraine since 2001, Kyivstar, is also looking at VAS as an additional revenue stream.

# WESTERN EUROPE

By the end 2012, every one of the 24 countries analyzed in this report had a mobile penetration rate above 100%.

There is a high demand for packaged mobile learning content and custom content development services.

Samsung is now a major competitor in the mobile learning market in Western Europe. Samsung began rolling out its tablet-based Smart School solution across the region last year.

## One buying behaviour for each country!

Consumers buy educational apps, subscribe to mobile learning value added service (VAS) products, and purchase personal learning devices. The consumer demand for mobile learning across the region has always been healthy and has become strong due to recent direct carrier billing agreements. This is vital for the "app economy" in countries with low credit card usage.

National academic plus EU digitization efforts: in September 2013 the European Union launched the Opening up Education program funded with "tens of millions of Euros".

Bring Your Own Device (BYOD) initiatives are becoming common in the region.

# LATIN AMERICA

High-speed networks are rolling out across the region at a rapid rate.

The average mobile penetration in the region is almost 97%. Mobile phone use is extremely high for all socio-economic groups in the region.

English language learning is in high demand.

The major market-driver is the relatively recent launch of dozens of mobile learning VAS products across the region.

The strategy of delivering educational content through standard mobile phones is particularly well-suited for use in rural areas where educational resources are scarce and fixed broadband connections are unavailable or unreliable. (UNESCO)

# MIDDLE EAST

The mobile learning growth rate in the region is 18.4%.

According to the TradeArabia News Service, 73% of all phones in use in July 2013 in the UAE were smartphones. This represents the highest smartphone penetration rate in the world.

In the current mobile learning market in the region, telecoms have a major advantage due to their billing capabilities.

Countrywide academic content digitization efforts are underway in most of the countries in the region.

Bahrain, Oman, Yemen, Qatar, Jordan and Kuwait have growth rates over 50%.

The preference for mobile learning over e-learning is also starting to take hold in academic segments.

Another major catalyst in the region is government mandates designed to increase English proficiency.

# NORTH AMERICA

While the growth rate may seem low compared with the other regions in the world, the revenues are extremely high (it's a mature market).

The two major buying segments across North America are the consumer and healthcare segments.

The mobile learning product type that will generate the highest revenues in North America throughout the forecast period is packaged content.

Canada shows an overall growth rate higher than the US.

The Ontario College of Art and Design University (OCADU) has the "Taking Ontario Mobile" (TOM) project, which is researching the state of mobile computing, including mobile learning, and its prospects in Ontario.

***Amol*** *is a highly respected e-learning professional and an acclaimed E-learning Solution Sales Consultant. He is passionate about the latest technologies in E-learning, with an in-depth and hands-on understanding of various Learning Management Systems and E-learning technologies. He is a seasoned Learning Management System Consultant with over 10 years in e-learning software and enterprise applications selling and consulting. He brings rich cross-functional experience, passion for innovation and expertise in transforming learning strategy into high quality e-learning solutions.*

*He has a Master's degree in Business Administration from Mumbai University and is highly passionate about e-learning. During his free time you will find him experimenting with new recipes or travelling to explore new places.*

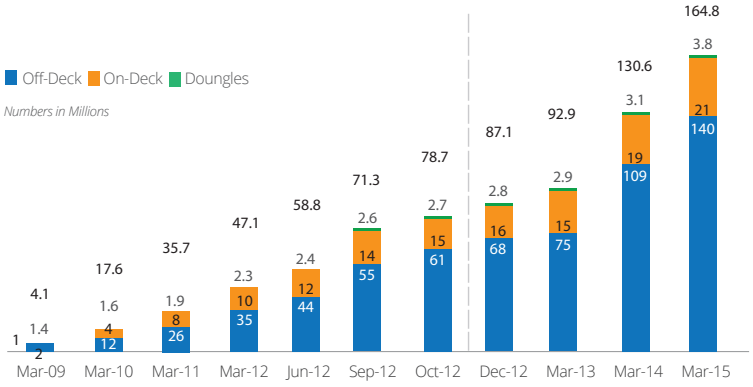
# Mobile Learning: The future of learning in India

*by Amol Shinde*

The worldwide market for mobile learning products and services is growing at a 5 year CAGR of 22.7%, and India is no exception.

Given current trends, by 2015, India is expected to be among the top 10 counties when it comes to buying mobile learning products and services - along with the USA, China and Japan.

## Future estimate of Mobile Internet Users

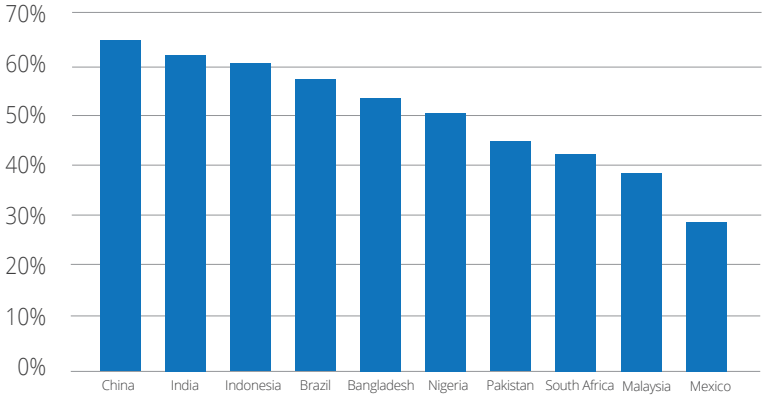



In India, the mobile phone has revolutionized communication. India is now one of the fastest growing markets for mobile phone services, with growing usage and increasing market penetration. As stated in a report published by the Internet and Mobile Association of India (IAMAI) and the Indian Market Research Bureau (IMRB), India will have around 165 million mobile internet users by the year 2015. This is almost double the current 87 million mobile internet users. This means that mobile devices are not only communication devices but channels for interactions and learning.

## 2010-2015 Worldwide Mobile Learning Five-year Growth Rates by Country

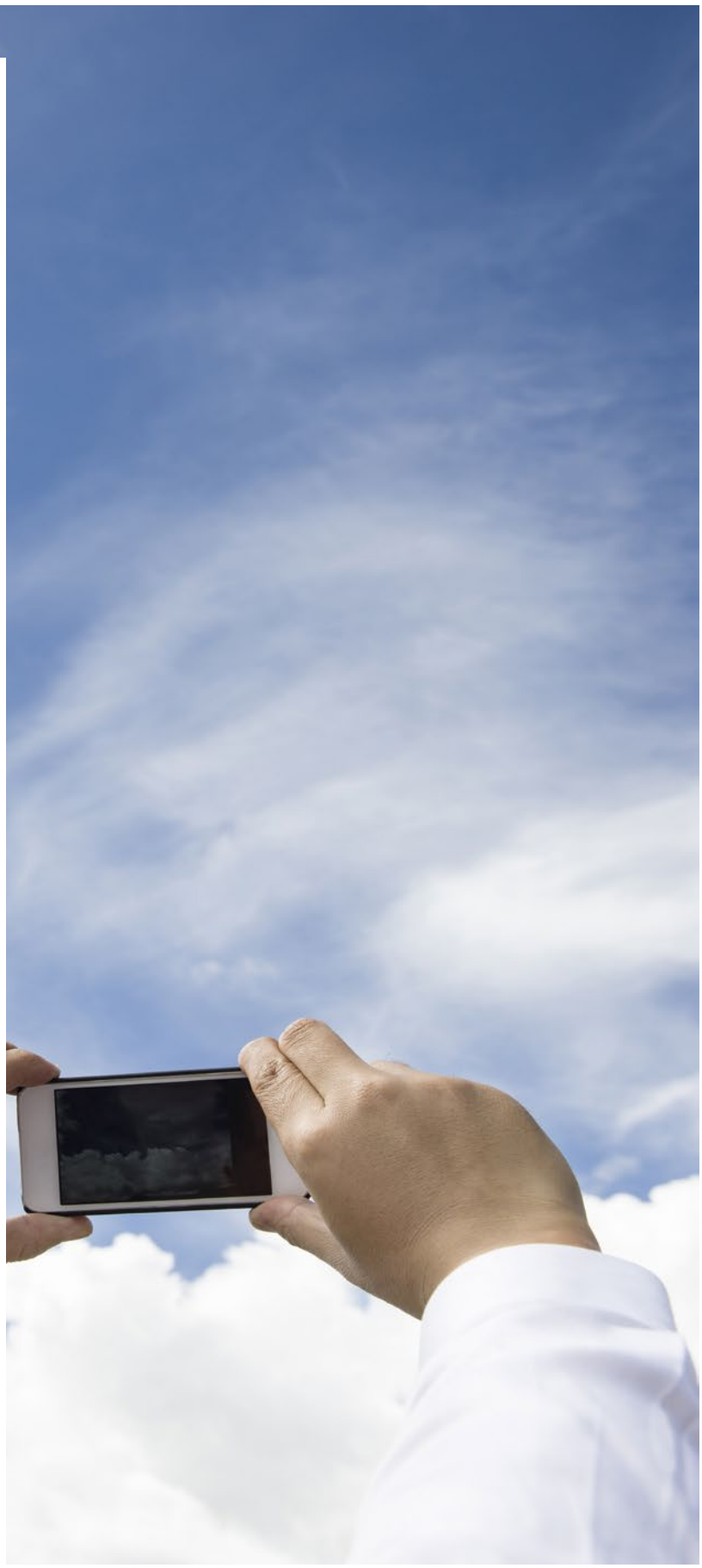
Across All Product Types

2010-2015 Top Ten Growth Rate by Country




Ambient Insight 2011

*Ref: Ambient Insight Report "2010-2015" Worldwide Mobile Learning Market estimate*



As suggested in a research study conducted by Ambient Insight, India will be the second largest country for buying mobile learning products and services by 2015 with a whopping growth rate of 61.3%. This reflects the fact that the mobile learning space is rapidly evolving in India and playing a significant role in imparting learning. The significance of m-learning is slowly and steadily being realized by L&D and there have been efforts taken towards developing the necessary applications to impart m-learning.

The key drivers behind growth of mobile learning in India are: the increase in market penetration of mobile devices, portability, small size, low price and - most importantly - mobile devices' adaptable technology. The government initiative to distribute Akash Tablets at school has ensured m-Learning will continue to rise in India. Given the statistics available, there is no doubt that m-Learning in India is going to define the future of learning there.

## Conclusion

Since India is considered to be an emerging market for mobile, and as millions of people become equipped with mobile devices, this mobile workforce represents a great opportunity for mobile learning in India.

**Josh Squires** *is currently serving as the Chief Operating Officer of Docebo EMEA. Josh has spent the past 15 years researching and implementing creative learning solutions within corporate and higher education environments. With clients ranging from Motorola to Disney, he has been on the designing and implementing stage of a wide range of learning scenarios with customers spanning the globe. Josh has also taught Instructional Technology theory and tools, as a consultant and faculty member, for over eight years in both Corporate and Higher Education environments.*

# M-Learning Strategies

*by Josh Squires*

As presented elsewhere in this report, mobile devices have taken the world by storm. The ready availability of high-powered computing in your pocket opens a new world of possibilities for learning. With this massive rise in accessibility comes many new challenges that will be required for the design team to overcome prior to launching your m-learning course.

There are many strategies for integrating m-learning into your corporate learning structure and there are many pitfalls as well. In this section we will discuss the things to avoid or to be aware of and, then, some best practices that you can use within your learning environment.

## Common Challenges when developing a mobile learning strategy:

## Desktop Learning is not the same as Mobile Learning

This is a common challenge that many learning departments initially assume when considering the addition of m-learning to their organizational learning strategy. The types of e-learning delivered by different media are different. The way users interact with a desktop/laptop is different from the ways users interact with a tablet (I still haven't figured out "right click" on my tablet) or smartphone. Building out your learning needs to take into account not only the technology capabilities and limitations but also the Human Computer Interaction (HCI) affordances of each type of technology. You also need a specific strategy for how you want to deliver the learning being created, based on the delivery technology itself.

**BYOD** - Bring your Own Device - This is a term or concept often associated with mobile learning. Basically it means that you design content once and that, no matter how your learners access it, the content will transform to their particular delivery platform. While this is frequently used as one of the main selling points for including a mobile learning strategy into your overall organizational learning strategy, it is a mistake to think that you can design once and have it applicable to all devices.

This concept goes against the very soul of instructional design as each learning experience should be crafted based upon a studied and analyzed methodology. Knowing how your end user will interact with the learning material is almost as critical as the learning material itself. Understanding how your users will be interacting with your learning content is part of the design methodology employed in building high quality and successful learning. While you can build a multi-platform delivery model, you have to design to the least common denominator (typically mobile). This means that you are doing a disservice to the learners. Different physical settings allow for different levels of concentration and engagement. Different technological capabilities require different learning design and interaction strategies. To implement a best practices approach, design your learning based upon a well-thought-out learning strategy and build an instructional strategy around the device(s) you wish your learners to use, based upon this strategy.

**The digital divide still exists** - Understanding the end user is paramount to building a successful learning strategy. In many parts of the world, e-learning has always (since the late 1990s at least) been a part of many workers' professional development plans. Different learners respond differently to digital learning, based upon how they prefer to learn and the content that is being presented to them. As we are presented with an (overall) aging workforce while new generations are entering the workforce, we are still faced with digital divide issues that began to plague our industry in the mid-1990s. With the emergence of Mobile Smart devices as a common feature of the workplace it makes perfect sense to include a mobile learning component as a core or supplemental part of your organization's learning strategy.

Revisiting the full digital divide challenge from a Learning and Development standpoint is essential. There needs to be a comprehensive strategy around how your learning is approached for tech-savvy learners and how to incorporate your less tech-savvy learners into the fold. This approach is paramount as there are significant differences in how different generations interact and use technology. This has to be taken into account for your m-learning strategy. Generational and tech familiarity gaps exist and the comfort levels of your learners need to be addressed within your m-learning strategy.

## Revisit your Learning Strategy

Now that we have taken into account some common challenges when coming up with our m-learning action plan we can begin to strategize methods for integrating m-learning into our overall learning strategy in a well thought out and strategic manner.

Building a learning strategy is hard work, time consuming, underappreciated by most departments outside of L&D/ Training, and often times take years to show ROI. That is the easy part! The hard part is to convince your entire company that the strategy that your team has worked on for years can be enhanced to make their lives easier by adding a mobile element to it. Many learners may have some hesitation to jumping on board the m-learning bandwagon. This is the opportunity to integrate some great knowledge management strategies into your learning strategy.

### Integrate your mobile learning strategy into your organizational learning plan

Working for months - sometimes years - around building Key Performance Indicators (KPIs), Performance Objectives, Terminal and Enabling Objectives, and organizing all of these into learning paths and plans can be painful. But, doing all this gives you have a perfect opportunity to revisit these key competencies and objectives and see which ones would be a good fit for an m-learning refresh.

There has been lots of great e-learning over the years - from Serious Games and interactive branching scenarios to highly interactive courses built with rapid authoring tools. So it's sometimes hard to understand how to jump into an m-learning path.

After all, there are differences between the capabilities of different devices as well as how different users interact with them.

Nonetheless, this is opportunity time. Implementing an m-learning strategy is an excellent chance to reduce time spent on lengthy, time-consuming courses. It's a chance to take some key competencies and rework them to be delivered either in a just-in-time manner (think "job aids") or to develop a series of bite-sized **Learning Pills** that allow quick and easy access to consumable content.


The other great option with mobile devices is that most users of smart devices are familiar with messaging capabilities. Integration of some of the new learning standards such as xAPI/TinCan allows your learning management system to capture this data and add it back to your learners' learning records.

Take your existing organizational competencies, skills, objectives and so on and evaluate what can be broken down into short extremely concise learning chunks (I like the term "Learning Pills") and then build it in a medium that works best for the greatest number of mobile devices (and remember you need to design for the least common denominator). Ideally, small videos or short and not very complex interactive packages work great. Follow them up with a quick knowledge check and you have an excellent standard Learning Pill.

If you've mastered the more basic model of m-Learning Design and have the capability to offer and support some real time interactions, build in a messaging component to your Learning Pills that allows for just-in-time communications with and between your learners to enable a true collaborative learning environment.

If you have the ability to unify the mobile learning environment through standardization of smart phones or tablets, think about taking greater advantage of the features contained within the device. Location tracking or delivering content based upon location, integration of cameras or videos recording best practices uploaded via the phone are great methods of supporting m-learning.

The main design goals of your Learning Pills should be that the direct instruction should never be longer than three to five minutes. It should include some form of quick knowledge check and it should align directly to your overall learning plan. Using other features within the device are great but this has to be well planned and have specific goals.

## Wrapping it all together

Use **m-learning** in conjunction with classroom (live or web based) delivered learning and your traditional e-learning courses. There is nothing stopping you from creating a great blended learning strategy that encompasses a wide variety of delivery methodologies. In doing so, you should be keenly aware of your audience. You should also remember that the learning is designed for specific media and should be aligned to your organizational competencies. The bottom line is that building m-learning programs is all about better enabling learning. Think it through. Get creative - and know your audience.

*Information at your fingertips at any time in any place is not science fiction, it is now a reality. M-learning is the logical next step for a ubiquitous learning environment. Learn, train, and understand when you need to.*

*Josh Squires, Chief Operating Officer EMEA, Docebo*

***Cindy Pascale*** *is the CEO and co-founder of Vado. She has 16+ years of HR, Training & Development and OD leadership experience and 12 years running talent management, development and assessment companies. Vado is the e-learning courseware provider 'changing the face of learning'. Please visit the Vado website and feel free to contact Cindy about your off-the-shelf management development and employee soft skill development e-learning needs.*

# Mobile Learning Content Design: 3 Must Haves

*by Cindy Pascale*

The other day I was sitting on a commuter train and noticed the woman sitting next to me. Without being too obvious in my visual eavesdropping, I noticed she was taking an e-learning course on her iPhone. She finished the course before our destination and gave herself a small congratulatory fist pump.

That woman represents a growing segment of learners — mobile learners. In fact, offering mobile learning is important for a number of reasons as it can drive significant benefits, including:

1. A greater number of course completions
2. Delivering your performance support strategy
3. Engaging your Millennials

According to a case study conducted by Merrill Lynch, mobile learners have a 12% higher completion rate than courses completed on a laptop. Also cited in this study is that the learners completed the training 30% quicker than those using classroom-based learning delivery. The reasons for these two great success statistics can be attributed to two further interesting statistics:

1. Mobile learners study 40 minutes more each week by studying everywhere they go.
2. Students with smartphones are twice as likely to study between 6a.m. and 8a.m.[1]

Performance support is delivering training content at the time and place of need — on-the-job. We have all heard the statistics showing that 70% of development happens on-the-job. By providing learning content that can be accessed while on-the-job, companies are leveraging the natural way a person develops — on-the-job. So, to deliver on your performance support strategy, you will need to adopt a mobile learning strategy.

Or, perhaps you are considering adopting mobile learning to engage the Millennials in your workforce. This is a valid strategy as 36% of the workforce will be made up of Millennials by the end of 2014. These workers have grown accustomed to using their hand-held devices for all their social needs, watching You Tube videos, gaming, banking, shopping online and much more. They have come to expect the same mobile convenience with their on-the-job training. Companies are responding by bringing the training to them - on their mobile devices - where they are comfortable and familiar.

The reasons for adopting a mobile learning strategy are compelling. Yet developing mobile learning content is not as simple as delivering your current e-learning courses on a mobile device. Mobile learning content needs to be designed with the audience and intended use in mind.

Here are three tips to consider when creating or converting your learning content into m-learning content:

**1. Short, bite sized learning content.** To enable performance support and to keep a learner engaged on a small screen, your m-learning courses need to be short — two to four minutes of learning content. Think of it a little differently than a time stamp — think one discreet learning objective at a time.

**2. Videos.** Not just videos but high definition HTML videos. Without getting into the technical details, HTML will work on "iProducts" whereas Flash videos will not. And use high definition because your Millennials are accustomed to high definition video games and, just like they have come to expect m-learning, they have come to expect high definition videos.

**3. Job Aids**. Again, to enable your performance support strategy, provide Job Aids for on-the-job application so that your learners have something tangible to use once they exit the course.

If you incorporate these three design principles into your m-learning strategy, you will be delivering m-learning courses that will meet your m-learners' needs. This should lead to higher completion rates in less time. Another benefit is that, while you cannot deliver your e-learning courses as m-learning courses, you can get a dual benefit and deliver your m-learning courses to your e-learning learners, increasing your return on investment for all m-learning courses created or purchased.

1. The Why Consider M-Learning Infographic was created by Michaels & Associated Learning Solutions.

# MOBILE LEARNING GLOSSARY

**3G**
3G refers to third generation. It is the latest evolution in phone technology, following on from 1G analogue and 2G digital mobile phones. 3G offers high-speed data transfer rates which allows mobile broadband and two-way video calling.

**Accelerometer**
An Accelerometer is generally used for measuring acceleration. Within a mobile phone the accelerometer detects the motion of the handset, and will auto rotate the display to show in landscape rather than portrait mode when the phone is rotated 90 degrees. This is ideal for viewing photos on the phone screen in full screen mode.

**Audioblog**
A blog that mainly publishes audio files (music or podcasting) sometimes with text and keywords for search engine optimization.

**Bandwidth**
Bandwidth (the width of a band of electromagnetic frequencies) is used as a measurement for the amount of data that can be transmitted per unit of time. Any digital or analog signal has a bandwidth. To download a photograph in one second, a higher bandwidth is needed than to download a page of text in the same time.
(SAP Mobile Business Glossary)

**Big data**
Big data is high-volume, high-velocity and high-variety information assets that demand cost-effective, innovative forms of information processing for enhanced insight and decision making.

**BYOD**
BYOD refers to the policy of permitting employees to bring personally owned mobile devices (laptops, tablets, and smart phones) to their workplace, and to use those devices to access privileged company information and applications. The term is also used to describe the same practice applied to students using personally owned devices in education settings.
(Wikipedia)

**Bluetooth**
Bluetooth technology allows connections between electrical devices without the need for wires. The benefit includes car kits and headsets that can be connected to a mobile phone without the need for wires. Bluetooth is a short range technology, usually working up to a distance of 10 metres.

**Chunking**
The process of separating learning materials into brief sections in order to improve learner comprehension and retention.
(http://www.mobl21.com)

**Cookie**
A cookie is an information for future use given to a Web browser by a Web server and is stored by the server on the client side of a client/server communication. The information is then sent back to the server each time the browser requests a page from the server. The main purpose of cookies is to identify users and possibly prepare customized Web pages for them.
(SAP Mobile Business Glossary)

**Device**
In a mobile context, device includes PDAs, Palms, Pocket, PCs, cell phones or any hardware that provides location-independent access to information, applications or services.
(SAP Mobile Business Glossary)

**Digital Natives**
A person for whom digital technologies already existed when they were born, and hence has grown up with digital technology such as computers, the Internet, mobile phones and MP3s.
(http://www.mobl21.com)

**GPS**
Global Positioning System; refers to the use of satellite-to-handheld receiver signals to determine location.

**Hotspot**
An area where wireless service is made available for Wi-Fi enabled devices or computers to access the nternet.

**HTML5**
HTML5 is a collection of proposed specifications for the next generation of HTML. Beyond this, HTML5 is used as a short-hand label for all that's new with the Web, including CSS3 and changes to HTTP.

**LTE**
LTE and its successor LTE-A are cellular technologies that improve spectral efficiency and will push cellular networks to theoretical peak downlink speeds of up to 1 Gbps. Additional benefits include reduced latency. Real-world LTE speeds tend to be under 100 Mbps and early LTE-A trials have peaked at around 300 Mbps in best-case conditions.

**Offline**
Offline technology - in distinction to online - is used for scenarios with much more local business logic. Online working is only possible during the data synchronization and the changed data then will be stored on the device local.

**Online**
Online means continuously online mobile web access. This kind of access makes sense for scenarios handling time sensitive data, needing only less data input or output without using databases.

**Online on Demand**
Online on Demand is a cached web access: offline data cache and online access whenever needed.

**Java**
Most phones these days support Java. Java is a programming language, used for many games and programs such as web browsers and email programs that you can install on your phone.

**EDGE**
EDGE is enhanced speed for data transfer across a GSM network. It can be seen as an alternative to 3G, and can be used to offer faster transfer rates by networks in areas where they do not have 3G coverage.

**mLMS**
Mobile Learning Management System (mLMS) – a learning management system for mobile devices.

**MP3**
MP3 employs a compression technique, with bits of information being discarded to allow data to be compressed into files that are relatively small in comparison with .WAV files, but which retain subjective CD quality.

**Mobile Application**
A software application that runs in a handheld device such as a smartphone.

**Multi-Touch input method**
In mobile computing, multi-touch refers to the capability of a touchscreen (or a touchpad) to recognize two or more points of contact on the surface concurrently. The constant tracking of the multiple points allows the mobile phone interface to recognize gestures, which enable advanced functionality such as pinch-to-zoom.

**Operating system (OS)**
The base software of a computer device; mobile OSs include Palm OS, PocketPC, Android and Symbian.

**Podcast**
A podcast is a series of digital media files (either audio or video) that are released episodically and often downloaded through web syndication. (http://www.mobl21.com)

**QR Code**
Quick Response Code (QR Code) is a two-dimensional bar code, which can be read and decoded with a camera.

**Responsive**
Responsive web design (RWD) is a web design approach aimed at crafting sites to provide an optimal viewing experience—easy reading and navigation with a minimum of resizing, panning, and scrolling—across a wide range of devices (from mobile phones to desktop computer monitors).
(Wikipedia)

**Smartphone**
A smartphone is a mobile communications device that uses an identifiable open OS. An open OS is supported by third-party applications written by a notable developer community. Third-party applications can be installed and removed, and they can be created for the device's OS and application programming interfaces (APIs). Alternatively, developers must be able to access APIs through a discrete layer such as Java. The OS must support a multitasking environment and user interface that can handle multiple applications simultaneously. For example, it can display e-mail while playing music.
(Gartner IT Glossary)

**Touchscreen**
A touchscreen allows input to be made onto a device simply by pressing on the screen. Often the UI on the device will offer large icons which all correspond to a particular feature. To open that application you simply touch the screen where the icon is displayed.

**Widget**
We get the word Widget by combining Window and Gadget. A widget is a screen based control that is used to interact with a website or other systems. Widgets can be buttons, selection lists, sliders, etc.

**WiFi**
WiFi is short for Wireless Fidelity, and is a term used to describe wireless standards for local network wireless connectivity.

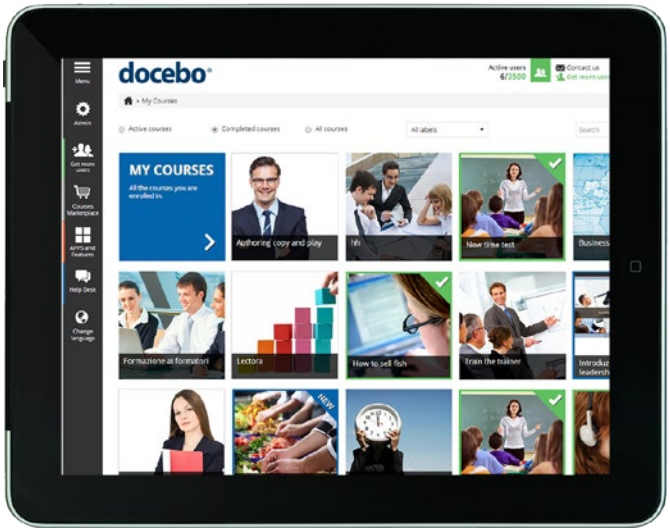
**XHTML**
XHTML is a reworking of HTML 4.0 designed to work as an application of XML. It allows anyone to create sets of markup tags for new purposes and provides a foundation for device-independent Web access.

# About Docebo

Docebo (from the Latin "I will teach" and pronounced "Docēbō") is a pure Cloud Learning Management System (LMS) that over 28,000 organizations have used globally since 2005.

Sold in over 70 countries worldwide and available in over 30 languages, Docebo has been ranked in the world's Top 10 for SaaS elearning solutions providers, and in the Top 3 for B2B LMSs.

Docebo is generally regarded as one of the industry's most comprehensive solutions for training management, and has been chosen by some of the world's most respected companies to achieve operational efficiency.




# About the Docebo LMS

Docebo is a product that was designed to be delivered in SaaS as an ecosystem of features and modules that can be enabled or disabled per customer requirement/s. It is extendable and flexible, with a component based architecture. This unique approach means companies can rapidly extend and scale their solution according to needs. What's more Docebo can easily be integrated with your existing IT systems (HR, CRM and other preferred platforms) via an API system.
The LMS is very easy to use and has been widely recognized for its user friendly and modern UI, and UIX. It manages, delivers and tracks: web based training (WBT), instructor led training (ILT), live distance learning, social learning, blended learning, mobile learning, and gamification.

Also with its Mobile app, Docebo delivers learning at the point of need and on-demand via all devices including mobile and tablet.

# Why Docebo?

| | |
|---|---|
| | Easy to use LMS with a modern UI |
| | Manages, delivers and tracks instructor led (ILT) and web-based training (WBT) activities |
| | Organizations can better train their workforce, channels and clients |
| | Enterprise Cloud Solution (ECS) option allows the LMS to run on a dedicated Cloud instance |
| | Available in more than 30 languages |
| | Robust and extendable in order to meet large sized project requirements |

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# E-Learning Market Trends & Forecast 2014 - 2016 Report

A report by Docebo | March 2014

docebo®

# Foreword

This report, by Docebo, is intended to help any decision maker who needs statements, arguments as well as facts and figures to prove, with real and tangible data, the added value of E-Learning initiatives to stakeholders.
It sets out the results of research analyzing key technology assets for continuous education. It endorses the use of online learning technologies to:

- Keep the workforce appraised of their job functions' developing requirements, enabling them to make a positive impact within their Organization and help that Organization achieve its aims and goals;
- Aid succession planning, helping workers to acquire the knowledge and skills to help them progress within their Organization;
- Allow Organizations to keep training budgets under tighter control, develop and retain existing employees and reduce the costs related to external human resources recruitment, selection and on-boarding.

Docebo, a disruptive Cloud E-Learning solutions provider with over 28,000 customers worldwide and an international partner network in more than 26 countries, welcomes the opportunity to further the conversation with you. Please contact us to learn more about how an integrated learning management system can empower your employees to greater effectiveness.

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# Executive summary

The current speed of change means that employees need to be trained continuously in order for Companies to avoid the dangers of being out-thought and out-maneuvered by competitors. These training initiatives (incorporating individual and group training activities) need to be monitored and managed via a consistent and reliable tracking system that can be stored, consulted and analyzed as required. The system's data will be useful for management reports on productivity and for assessing individuals' career advancement.

This system of Training management -- often referred to as a learning management system (LMS) -- is a key element of an effective professional development plan as well as being a key element of an Organization's human resources strategy.

There seems to be universal agreement that the worldwide E-Learning market will show fast and significant growth over the next three years. The worldwide market for Self-Paced E-Learning reached $35.6 billion in 2011. The five-year compound annual growth rate is estimated at around 7.6% so revenues should reach some $51.5 billion by 2016. While the aggregate growth rate is 7.6%, several world regions appear to have significantly higher growth rates. According to recent regional studies, the highest growth rate is in Asia at 17.3%, followed by Eastern Europe, Africa, and Latin America at 16.9%, 15.2%, and 14.6%, respectively.

Each of the world's regions has its idiosyncrasies In terms of the factors that drive this market. The U.S. and Western Europe markets are the most mature. The U.S.A. spent more on Self-Paced E-Learning than anywhere else in the world. Western Europe is the world's second largest buying region for E-Learning products and services but Asia is predicted to outspend Western Europe in E-Learning terms by 2016.
In 2012, Bersin & Associates stated that there were some 500 providers in the LMS market and only five of them have more than a 4% market share. According to this, the LMS market was expected to reach $1.9 billion in 2013. However the growth exceeded expectations, closing the year at $2.55 billion.

The Cloud is changing the way Organizations, Employees and Partners interact and collaborate. Within the Cloud solutions universe, Software-as-a-Service (SaaS) is playing a major role. According to Gartner, SaaS will continue to experience healthy growth through 2014 and 2015, when worldwide revenue is projected to reach around $22 billion. Gartner has stated that many Enterprises are now replacing their legacy systems with SaaS-based CRM systems. Enterprise clients also report that SaaS-based CRM systems are delivering new applications that deliver complementary functions which are not possible with older, legacy CRM platforms.

Various surveys and analyses into the reasons behind this big growth in SaaS agree on at least three. SaaS brings:

- Speed of implementation
- Savings on capital expenditures
- Savings in terms of operational expenses

The SaaS model is also playing a major role in helping to increase the size of the E-Learning market. Small and Medium-sized Enterprises (SMEs), as well as large Corporations are making the adoption of a SaaS LMS a key priority. In particular, large Corporations are switching to

a SaaS LMS from in-house LMS solutions or they are now using a SaaS LMS as a secondary learning system for special training purposes.

E-Learning is subjected to the influences of sales trends related to smart connected devices and the Internet megatrend (that is, the spread of the Internet in the world).

According to IDC, the number of PCs will fall from 28.7% of the device market in 2013 to 13% in 2017. Tablets will increase from 11.8% in 2013 to 16.5% by 2017, and smartphones will increase from 59.5% to 70.5%.

The new frontier to address is the trend towards Bring Your Own Device (BYOD) -- where individuals take their personal (usually mobile) devices to workplaces. Increasingly, these seem to be being used to help their owners perform work activities (including formal training), both in and out of the workplace. Smartphones are the most common examples of these devices but employees often also use their tablets or laptops in the workplace.

While the corporate-training market has lagged behind other education-based sectors, it continues to represent a viable investment opportunity.

The corporate-training market is among the most cyclical within the education industry. Since 2010, employers' total spending on training and the amount spent per employee -- the key data used to measure this sector -- have been declining. However, the corporate market related to outsourced services (net of all ancillary costs) has grown to reach 42% of total expenditure.

Within the training industry, the E-Learning sector has grown consistently in recent years. All its subsectors (Packaged Content, Platform, and Authoring tools) show positive annual growth. Market acceptance of E-Learning has resulted in its increased use for both large and small companies. SaaS/ Cloud E-Learning solutions are particularly suitable for Organizations ranging from SMEs to large institutions.

General budget constraints appear to be the main drivers of the shift towards using E-Learning. However, E-Learning is not merely a solution which is attractive during an economic downturn but it is also an efficient and cost-effective solution when workers -- especially those in Organizations with a widely geographically distributed workforce -- need to be brought up-to-speed quickly on relevant knowledge and skills.

K-12 and post-secondary are two key sectors of the educational market. One of the key characteristics of the education sector is its large base of potential users. Importantly, each of these users may start in the K-12 or post-secondary markets but they have the potential to also become future users of vocational training programs. Their involvement in E-Learning projects at the K-12 and post-secondary stages will build a large base of users already accustomed to using such technologies in order to learn.

With the inflow of an estimated $6 billion of venture capital over the past five years, E-Learning is being driven not only by startup dot-com entrepreneurs but also by big corporations, for-profit spin-off ventures, as well as big and small universities.

# Introduction: the strategic role of continuous education

One way to stay on top of a rapidly changing market is to implement a **business strategy** that maximizes the synergies between **lifelong learning** and **workforce productivity**.

Without appropriate technological support, training programs appear to be less effective. Research has shown that **E-Learning** proves to be an excellent way to achieve quality results in a short timeframe. Online-delivered learning, within a context of continuous education, is considered strategic because it:

- Keeps the workforce appraised of their job functions' developing requirements, enabling them to make a positive impact within their Organization and help that Organization achieve its aims and goals
- Aids succession planning, helping workers to acquire the knowledge and skills to help them progress within their Organization
- Allows Organizations to keep training budgets under tighter control, develop and retain existing employees and reduce the costs related to external human resources recruitment, selection and on-boarding

The current speed of change means that employees need to be trained continuously in order for Companies to avoid the dangers of being out-thought and out-maneuvered by competitors. Thankfully, entrepreneurs, senior executives and business managers recognize this.
A poorly educated workforce results in decreased, indeed ever decreasing, levels of productivity and reduces their ability to deliver results. Ignorant and poorly skilled staff can't (or at least shouldn't) be promoted -- since they don't have the appropriate skills to help their company reach its business objectives. So Organizations need to go to the expense, in terms of time and trouble, of recruiting staff with new knowledge and competences from outside the organization in order to cover middle and senior level positions.

It's important to realize that not only does this practice have a negative impact on the organization, in terms of high costs per individual worker, but company results show that this approach isn't always successful.

According to recent research (Lifelong Education and Labor Market Needs, published in The EvoLLLution online newspaper) examining the need for continuing education in the workforce, 64% of executives who are recruited externally fail within four years of joining the organization.

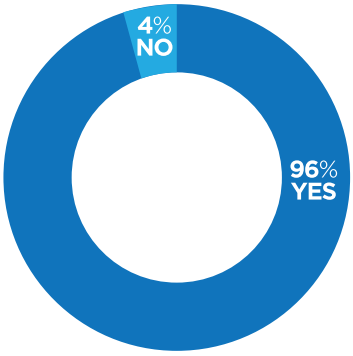
Ideally, every company should have a plan in place for each of their employees. This plan should set out **career development** paths and the required **training programs** that will enable the employees to develop the necessary knowledge and skills.

These training initiatives (incorporating individual and group training activities) need to be monitored and managed via a consistent and reliable tracking system that can be stored, consulted and analyzed as required. The system's data will be useful for management reports on productivity and for assessing individuals' career advancement.

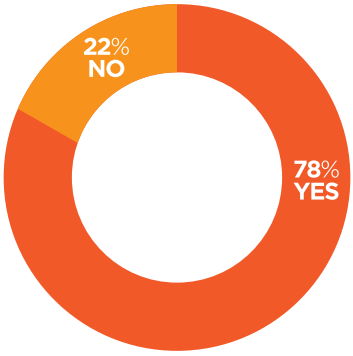
This system of **Training management** -- often referred to as a **learning management system (LMS)** -- is a key element of an effective **professional development plan** as well as being a key element of an Organization's human resources strategy.

## Continuous education is considered strategic

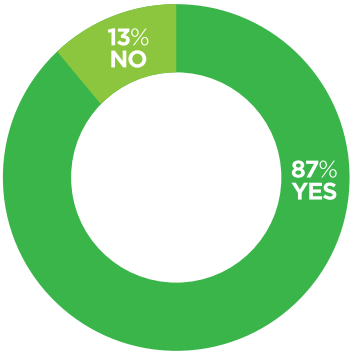
Employers say Ongoing Education has Positive Implications for the Company and the Employee




DOES ONGOING EDUCATION **HAVE A POSITIVE IMPACT ON JOB PERFORMANCE?**




DOES ONGOING EDUCATION **FACTOR INTO PROMOTION AND ADVANCEMENT?**




DOES ONGOING EDUCATION **AFFECT COMPENSATION AND SALARY?**

Employers recognize the impact of ongoing education and reward their employees accordingly.

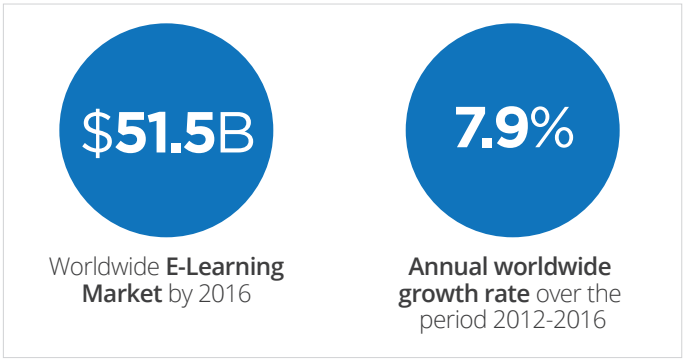
*Source: Lifelong Education and Labor Market Needs, An EvoLLLution Research Report, 2012*

# Growing Global E-Learning Market

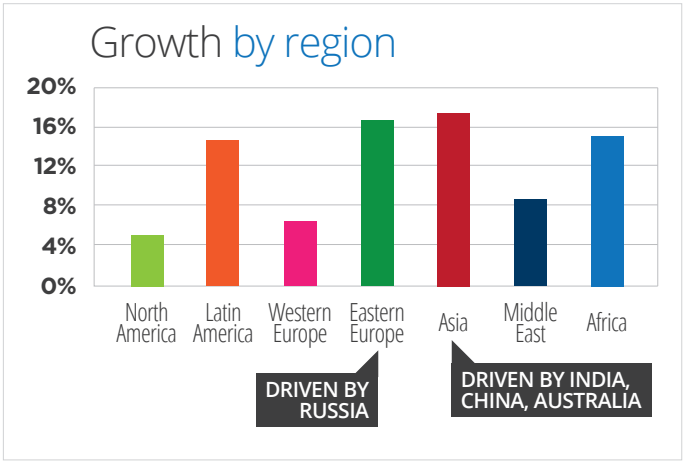
There seems to be universal agreement that the worldwide E-Learning market will show fast and significant growth over the next three years.

The worldwide market for Self-Paced E-Learning reached $35.6 billion in 2011. The five-year compound annual growth rate is estimated at around 7.6% so revenues should reach some $51.5 billion by 2016.

A definition of Self-Paced Learning is Education in which learners study at their own pace, without a fixed starting date or regularly scheduled assignment completion dates in common with other students enrolled in the same program. However, there may be a fixed overall completion timeframe.




While the aggregate growth rate is 7.6%, several world regions appear to have significantly higher growth rates. According to recent regional studies, the highest growth rate is in Asia at 17.3%, followed by Eastern Europe, Africa, and Latin America at 16.9%, 15.2%, and 14.6%, respectively.

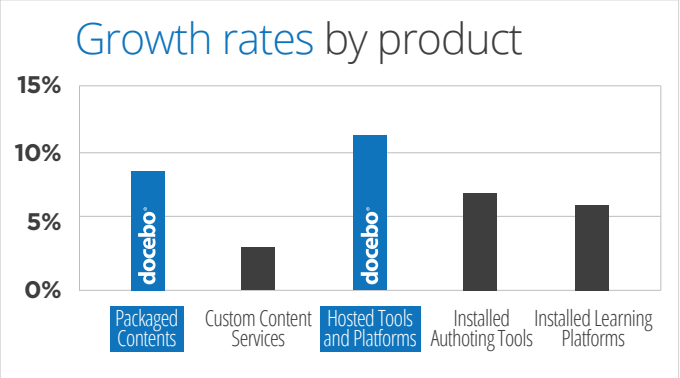



*2011-2016 Growth rates by region (Ambient Insight 2012)*

The E-Learning market is clearly expanding year-on-year, even though it's difficult to compare market data coming from different sources. For example, if you include the Gaming and Gamification tools within the E-Learning market, then the growth numbers are even more impressive.

Using a "classic" understanding of E-Learning reveals at least three dominant sub-sectors: Content, Authoring tools, and Learning Platforms.

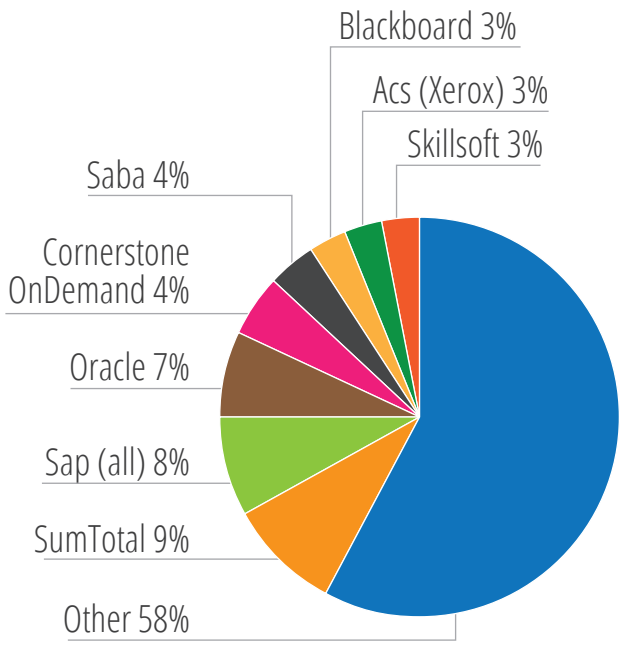
The recent innovations within the technology infrastructure divide the Learning Platform into two business (and technological) models: Hosted and Installed platforms. According to a recent analysis from Ambient Insight, these sub-sectors are expected to grow at different rates:




*2011-2016 Growth rates by product (Ambient Insight 2012)*

In 2012, Bersin & Associates stated that there were some 500 providers in the LMS market and only five of them have more than a 4% market share.

## 2013 Projected Global LMS Market Share




*Source: Bersin & Associates, 2012*

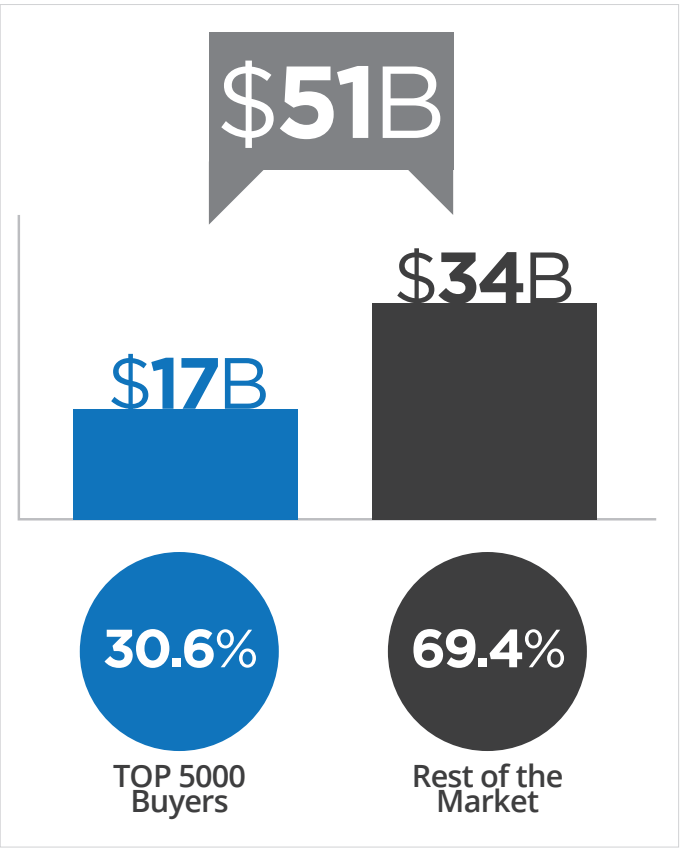
This market share is an overall image of the market. This picture changes significantly if the focus shifts to specific producers and specific market sub-sectors. Moodle, for example, currently has more than 30% of the market in the Education and Government sub-sectors. *(SOURCE: E-Learning GUILD RESEARCH)*

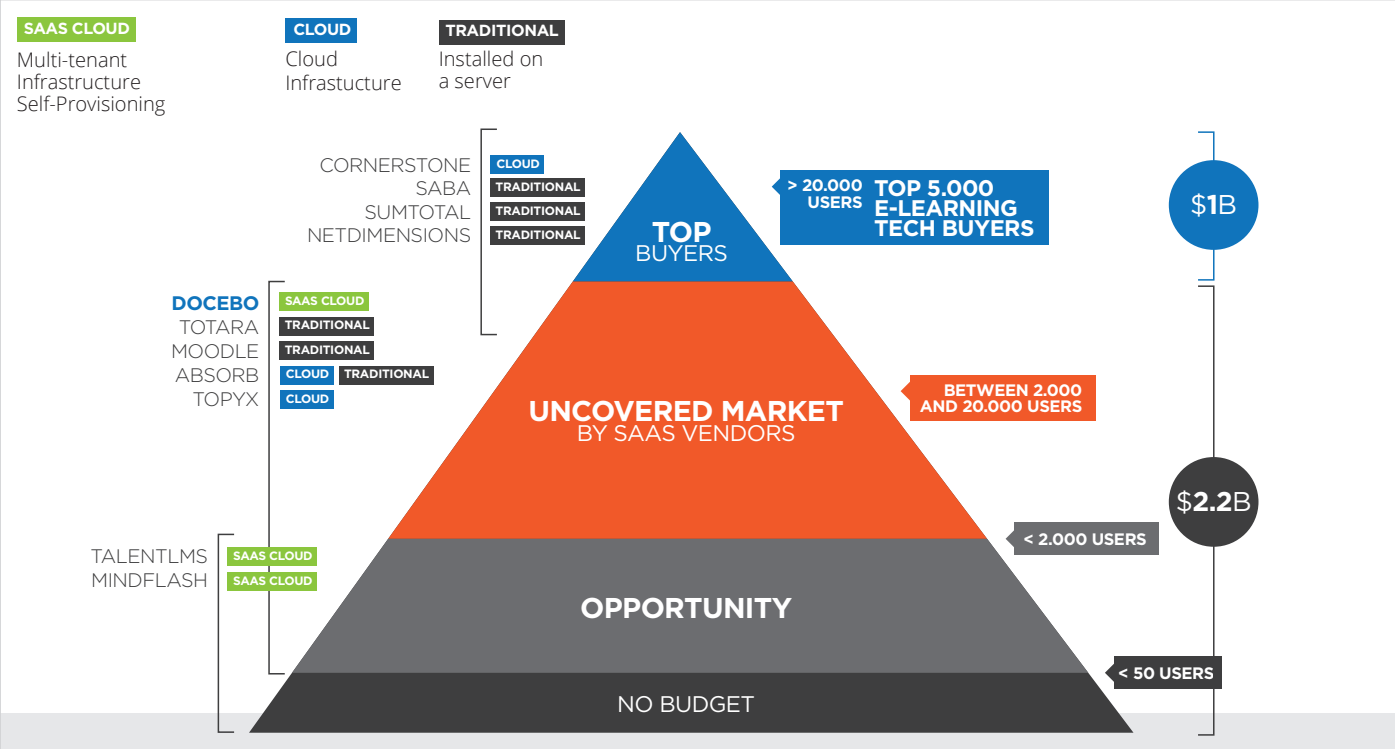
According to the Bersin Industry study, the LMS market was expected to reach $1.9 billion in 2013. However the growth exceeded expectations, closing the year at $2.55 billion.

According to Product & Users, the LMS market is expected to experience a growth of 23.17% between 2017 and 2018.

According to Ambient Insight, the packaged content market will reach $38.3 billion by 2016 *(SOURCE: AMBIENT INSIGHT 2012).*

According to sources, large and affirmed Companies (such as the Global 5000) are the primary buyers of E-Learning products and services. They account for more than 30% of the E-Learning Market clientele.






A synthesis and analysis of all the available data, results in the following estimated forecasts:

## Total E-Learning Market (LMS + Packaged Content + Other Services)

| | 2013 | 2016 |
|---|---|---|
| **Total** | **40.605** | **51.172** |
| North America | 23.800 | 27.100 |
| Western Europe | 6.800 | 8.100 |
| Eastern Europe | 729 | 1.200 |
| Asia | 7.100 | 11.500 |
| Middle East | 443 | 560 |
| Africa | 333 | 512 |
| Latin America | 1.400 | 2.200 |

## Packaged Content

| | 2013 | 2016 |
|---|---|---|
| **Total** | **30.153** | **38.000** |
| North America | 17.674 | 20.124 |
| Western Europe | 5.050 | 6.015 |
| Eastern Europe | 541 | 891 |
| Asia | 5.272 | 8.540 |
| Middle East | 329 | 416 |
| Africa | 247 | 380 |
| Latin America | 1.040 | 1.634 |

## LMS Market (covering all the technical solutions available)

| | 2013 | 2016 |
|---|---|---|
| **Total** | **2.550** | **3.214** |
| North America | 1.495 | 1.702 |
| Western Europe | 427 | 509 |
| Eastern Europe | 46 | 75 |
| Asia | 446 | 722 |
| Middle East | 28 | 35 |
| Africa | 21 | 32 |
| Latin America | 88 | 138 |

## Other services related to E-Learning activities

| | 2013 | 2016 |
|---|---|---|
| **Total** | **7.902** | **9.958** |
| North America | 4.632 | 5.274 |
| Western Europe | 1.323 | 1.576 |
| Eastern Europe | 142 | 234 |
| Asia | 1.382 | 2.238 |
| Middle East | 86 | 109 |
| Africa | 65 | 100 |
| Latin America | 272 | 428 |

# Geographical Insights

Each of the world's regions has its idiosyncrasies In terms of the factors that drive this market. In Asia, for example, Government-funded projects related to literacy development in rural areas are a **major driver to the introduction of E-Learning.**

In the Middle East, governmental interventions play a critical role in the **dissemination of E-Learning material** as educational methods. This is directed not only at students (ranging from those in elementary schools to those on post-graduate programs), but also at employees in the public sector.

In some African countries, private universities are making the difference when it comes to investments. These Institutions are willing to provide a broad offering to their students in order to help them boost their careers.

In African countries, in general, the introduction of mobile technologies and the use of social networks are major drivers to change. Nonetheless, the most important Change Agent remains the various countries' **Governments** using direct interventions. Facebook and Twitter are used predominantly to support distance learning while VOIP solutions, such as Skype and Google Talk, are becoming popular as well.

The U.S. and Western Europe markets are the most mature, with the biggest instances of E-Learning adoption ranging from K-12 solutions to business-related training.

# The African E-Learning Market

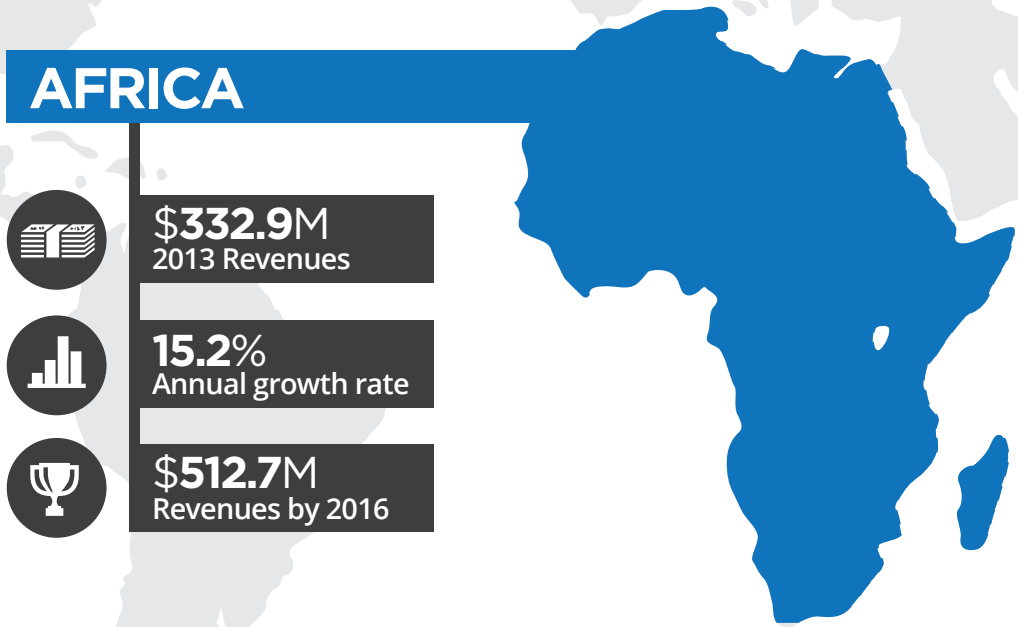
National governments are not the only ones playing a key role in the development of information and communication technologies (ICT) for education. Other sponsors of this trend are international authorities, such as UNESCO, which invests heavily in developing a modern framework for education in the region. Most of these initiatives are vertical, like UNESCO's initiative to disseminate the important role women have played in African history (see: http://en.unesco.org/womeninafrica/).

However, the development of a mature E-Learning market in Africa is still restricted by the lack of proper IT infrastructures and connectivity solutions. According to 2012 estimates, Internet penetration in Africa has reached only 15.6%. Although the number of people on whom the internet has an impact is undoubtedly higher, this statistic demonstrates a significant infrastructural disparity between Africa and the other continents. Today, the fast-growing market for mobile devices looks to be the strongest trend that will support the development of E-Learning in Africa.

Over the few next years, various observers believe that we'll see not only an increase in revenues but also the birth of local players within the E-Learning Market. The first MOOC initiative designed by Africans for Africans -- The AMI Virtual Campus is Africa's first free online learning platform for African managers and entrepreneurs -- has already been instigated.

*"Surveys indicate that the African population is willing to engage with new technology-based tools to improve their education and knowledge. However, the continent's infrastructure proves to be a large challenge, undermining the long-term benefits of Internet and Mobile learning strategies. A new mindset is required to adopt 'Cloud' technologies, with African youth pushing favorably towards new learning methodologies that would allow them to catch up with their intercontinental counterparts."*
***Lorenzo Torresin, Technical Director, Allos South Africa.***

The people of Africa seem **willing to engage** with new technologically-based tools to **improve their education, knowledge** and **skills.** However, the continent's infrastructure is proving to be a major challenge and an obstacle to meeting this growing level of demand.



## AFRICA

**$332.9M**
2013 Revenues

**15.2%**
Annual growth rate

**$512.7M**
Revenues by 2016

# The Eastern European E-Learning Market

Eastern Europe has the second-highest economic growth rate in the world after Asia (17.3%). In the field of E-Learning, Russia is the country with the highest growth rate and is now considered to be a mature market. The main drivers of this growth are **government investments** (public sector funds) and the presence of **numerous start-ups** that deal with technologies for teaching purposes.

Young Russians' interest in "Western" initiatives on distance and online learning technologies (E-Learning) is extremely strong (both Coursera and Khan Academy are currently widely adopted in Russia), but the market is still affected by public and private investors influencing interest through domestic initiatives (such as the LinguaLeo platform for English language learning, and Rosalind for bio-informatics learning).

*"The Eastern European Market and, above all, the Czech and Slovak E-Learning markets are in a steady situation. The main market innovators are Corporations that buy content for their LMS. Now they are more experienced in using E-Learning software for their internal educational programs and their purchases are more sophisticated and selective. The second most important market segment is represented by learning portals serving SME and B2C, which are growing but numbers are still low. The government segment and public schools are not very active due to budget restrictions and difficulties in realization of EU projects."*

***Jan Miškovský, Business Development Manager, Gopas.***

## EASTERN EUROPE

**$728.8M**
2013 Revenues

**16.9%**
Annual growth rate

**$1.2B**
Revenues by 2016

- **SME & B2C Learning Portals**
- **Learning Contents Provisioning**
- **PA and Government**

# The Asian E-Learning Market

Asia has the world's highest regional growth rate for E-Learning, of 17.3%.

Revenues from the sale of E-Learning reached $5.2 billion in 2011 and are expected to more than double to $11.5 billion by 2016. The vast majority of these revenues will be generated from the sales of packaged content.

Throughout the whole of Asia, Government-funded projects related to literacy development in rural areas are a major driver to the introduction of E-Learning.

Focusing specifically on the Indian Market, the E-Learning industry in India was valued at INR 18.41 trillion in 2010/2011. Increasing Internet penetration, low-cost existing coverage and rising demand are expected to help this market develop strongly in the near future. The Ken Research Group report, 'India's E-Learning Market Outlook to FY2018 - Increasing Technology Adoption to Drive Future Growth', estimates that the market should grow at a Compound Annual Growth Rate (CAGR) of 17.4% over the period FY2013 to FY2018. The key drivers for this market are:

Increasing Government initiatives to promote E-Learning
The growing adoption of technology
The shortage of quality education, and
Convenience and affordability factors

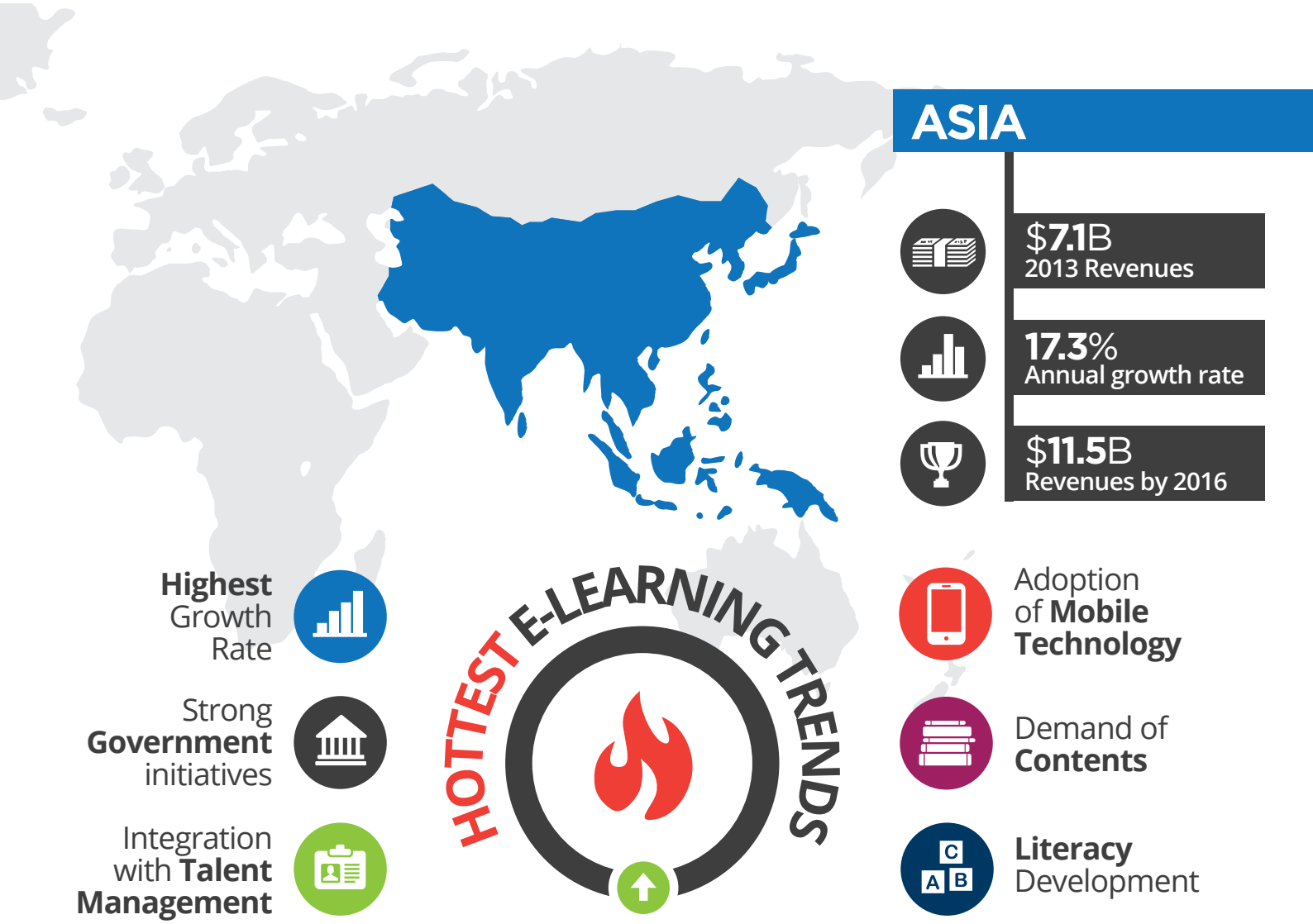
With E-Learning being increasingly used to facilitate talent management in corporations, the demand for custom E-Learning content and technology is likely to increase. This should increase the overall growth rate for India's E-Learning market in the future.

In addition to technology adoption, the Indian E-Learning content market is expected to grow at a CAGR of 18.4% from FY 2014 to FY 2018. The strong Government initiatives pushing student enrolments in higher education and distance learning will keep propelling market expansion at an ever-increasing rate.

The rapid adoption of mobile technology is going to play a major role in the way the entire digital experience is valued and consumed. The mobile ecosystem -- devices, carriers, app markets and so on --has become the fastest-growing industry ever recorded.

The increasing sales numbers suggest that the growth of smartphones in India allows people greater access to the Internet via mobile devices rather than computers. Unlike a desktop PC or even a laptop, this is an education portal that people can take with them wherever they go. Hence, learning on the go will be the next thing to watch out for and platforms like Docebo, which fully supports mobile access, will continue to perform well as market leaders.

*"The sources used for the construction of quantitative data of the market are Ambient Insight 2012 and ASTD.org"*
***Amol Shinde, Docebo Solution Consultant, India.***



# The North American E-Learning Market

North America is the most mature market for E-Learning in the world. In 2011, the U.S.A. spent **more on Self-Paced E-Learning than anywhere else in the world.**

While the rate of growth in this market may seem low compared with other world regions (at a mere 4.4%), **the revenues generated in this market are extremely high.**

The entire education industry in the U.S. is growing extremely rapidly, and the predictions concerning market growth are encouragingly positive. However, the market is not without its challenges. For example, according to various sources, the K-12 and post-secondary sectors in the U.S. make high demands of suppliers.

*"2013 taught us that the outcome of any learning initiative, whether blended, classroom-based, or fully online must contribute to the Organization's KPIs and decision processes. As a result, designated learning technologies, such as Docebo, must become part of a larger spectrum of systems -- also referred to as an ecosystem -- and be able to integrate seamlessly with different IT legacy systems including ERPs, CRMs, HRIS, SIS, Video-conferencing tools and more. For the adopters, these integrations need to be simple and as much 'plug-and-play' as possible.*

*"Docebo's allowing the use of an open API framework or a pre-built Web Apps marketplace is a response to this critical market need. Meanwhile, in North America, companies like Amazon and Rackspace have become standards in the Cloud business, and are contributing to an enormous acceleration of Cloud-based services adoption.*

*"Thanks to the greater technological maturity trend in 2013 in the learning technologies sector, a boost in the usage rate of videos among our customer base was also evident. Ultimately, this is also consistent with the idea that learning processes need to leverage humanization, and reduce the amount of flat and impersonal PPT decks.*

*"Currently, we're seeing that a great number of North American Organizations are adopting learning technologies that aren't limited to internal training purposes. Both channel and external clients' training initiatives are, nowadays, a must-do.*

*"In this respect, I feel that MOOCs were NOT a bubble but, rather, an academic anticipation of an unsatisfied business need. The need is to be able to leverage internal knowledge, aggregate it professionally in courses and be able to market that to the appropriate segments of target audiences through an LMS with embedded E-commerce capabilities. Turning a cost-driven system like an LMS into a revenue generating system is the trend that I anticipate will have the most impact in 2014."*
***Alessio Artuffo, Chief Operating Officer, Docebo NA***

## TRENDS

**Video**
(More human)

**PPT**
(More impersonal)

E-LEARNING **ECOSYSTEM**

INTEGRATION OF
- ERPs
- CRMs
- HRIS
- SIS
- VIDEOCONF

## NORTH AMERICA

- **$23.8B** 2013 Revenues
- **4.4%** Annual growth rate
- **9.0%** Cloud based authoring tools and learning platforms growth rate
- **$27.1B** Revenues by 2016

## TRAINING

ONLINE | CLASSROOM | BLENDED

## CONTRIBUTE TO KPI

**E-COMMERCE PLUGIN**

The LMS becomes a **Revenue Generating System**

# The Western Europe E-Learning Market

Western Europe is the world's second largest buying region for E-Learning products and services after North America.

This is set to change in the upcoming forecasted period. Asia is predicted to outspend Western Europe in E-Learning terms by 2016.

"Despite being a mature market, 2013 was nevertheless a transitional year for E-Learning in Western Europe. We can put aside the buzz about MOOCs in higher education and all the noise about a coming shift to mobile.

"For those of us who focus on workplace learning, the interesting shift is the number of small and medium sized businesses that have started to adopt sophisticated learning technologies. With the pricing structure of products such as Docebo, suddenly smaller companies are realizing that there is a very low barrier to entry for them to have enterprise-grade capability in this area.

*"The other trend we've observed, from the larger corporations in our client base, is a shift to outsourcing the development of E-Learning content to professional agencies rather than building in-house. We're excited about the landscape for 2014."*
***Guy McEvoy, Managing Director, Guykat***

# WESTERN EUROPE

**$6.8B**
2013 Revenues

**5.8%**
Annual growth rate

**$8.1B**
Revenues by 2016

**Focus on Small & Medium Businesses**

**Outsourcing of E-Learning Content**

# The Latin American E-Learning Market

Sam Adkins, chief research officer at Ambient Insight, has estimated that E-Learning revenues in Latin America will almost double to $2.29 billion in 2016 from $1.16 billion in 2011. That's equivalent to an annual growth rate of 14.6%.

In general, as in 2011, Latin America is largely a "consuming" region, importing the majority of its E-Learning content and technology from outside the region. This is likely to change over the forecasted period as domestic suppliers continue to gain market share.

*"Opportunities are arising for suppliers of E-Learning content, hardware, software and services.*
*Governments are handing out laptops to students; private schools are asking their students to bring in their own computers, tablets or other devices, and corporations are rolling out E-Learning platforms for employees to improve their skills.*

*"Brazil will grow fastest at 21.5%, trailed by Colombia at 18.6%, Bolivia at 17.8% and Chile, at 14.4%.*

*"While schools are the major buyers in Brazil, corporations dominate E-Learning in Argentina, consumers do so in Chile, and governments do so in Colombia, Mexico and Venezuela.*

*"The forecast for the next three years is that big foreign suppliers will dominate the E-Learning business in Latin America. This includes these foreign companies buying domestic suppliers in order to gain market share. In the larger markets (Argentina, Brazil, Mexico and Venezuela) the international suppliers will find themselves slugging it out in terms of price in order to sustain sales. The alternative for the smaller suppliers will be to focus on smaller regions (such as Colombia, Chile or Bolivia) and offering tailored solutions that fit the specific customers' needs.*

*"A growth in Content-as-a-Service (CaaS) and School-as-a-Service (SaaS) solutions is also expected, following the latest trends in the United States."*
***Jordi Fernàndez, Business Director, Enzyme***

# LATIN AMERICA

**$1.4B**
2013 Revenues

**14.6%**
Annual growth rate

**$2.2B**
Revenues by 2016

## HOTTEST MARKETS

- **BRAZIL** — SCHOOLS
- **ARGENTINA** — CORPORATIONS
- **CHILE** — CONSUMERS
- **COLOMBIA, MEXICO, VENEZUELA** — GOVERNMENT

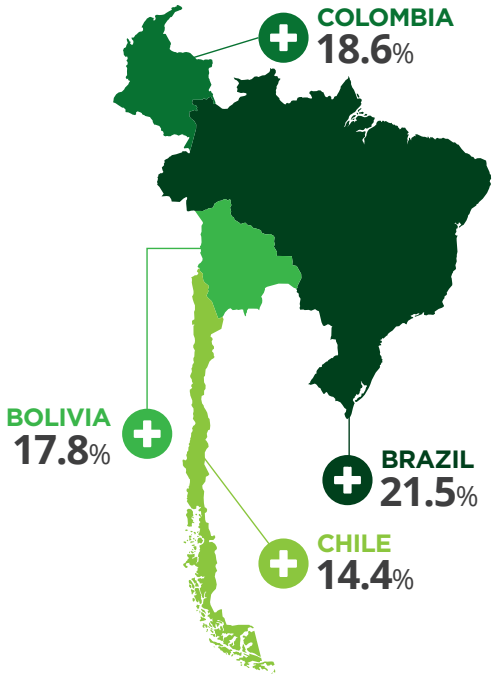
## PLAYERS

- **GOVERNMENT** — LAPTOPS
- **PRIVATE SCHOOLS** — COMPUTERS & TABLETS
- **CORPORATIONS** — LMSs

## TRENDS

- **SaaS** (School as a Service)
- **CaaS** (Content as a Service)

## FASTEST GROWING AREAS




## GROWTH OF E-LEARNING FOR PROVIDERS OF

- E-LEARNING CONTENT
- HARDWARE
- SOFTWARE
- SERVICES

# The Middle Eastern E-Learning Market

The Middle Eastern E-Learning market is growing rapidly due to market makers, such as Governments, Private Schools and Corporations. This infographic relates to 2013 E-Learning revenues, the market annual growth rate and the forecasts for revenues in 2016.

Oman is the top performer in E-Learning terms for the rankings that cover the Middle East. Oman has the highest growth rate in the region at 19.6%, followed by Lebanon (16.0%), Turkey (12.9%), Kuwait (12.6%) and Qatar (11.3%). This is mainly because the Government of Oman is interested in issues relating to education and computer literacy and, consequently, is investing heavily in the sector.

For example, Sultan Qaboos University (SQU) regularly provides professional development workshops for its staff. This acquaints them with E-Learning technology from an educator's perspective. To date, over 200 staff have attended such workshops. In addition, almost as many regular courses have some E-Learning content included.

*"Middle Eastern Governments are strongly committed to promoting a Mass Digitalization process. This means that heavy investments are being made in this initiative. This is especially true for Soft Skills training. This is designed to quickly and competitively improve the workforce. Is compliance training in this region the next "big thing"? Time will tell, but lots of regulations are already coming..."*
***Claudio Erba, CEO & Founder, Docebo***

THE STRONG EFFORT TO DIGITIZE SCHOOL LIFE **IS DRIVING THE MARKET** IN THIS AREA.

## MIDDLE EAST

**$443M**
2013 Revenues

**8.2%**
Annual growth rate

**$560.7M**
Revenues by 2016

THE **MARKET MAKERS** IN THIS AREA ARE:

- GOVERNMENT
- PRIVATE SCHOOLS
- CORPORATE

# The Game Changers

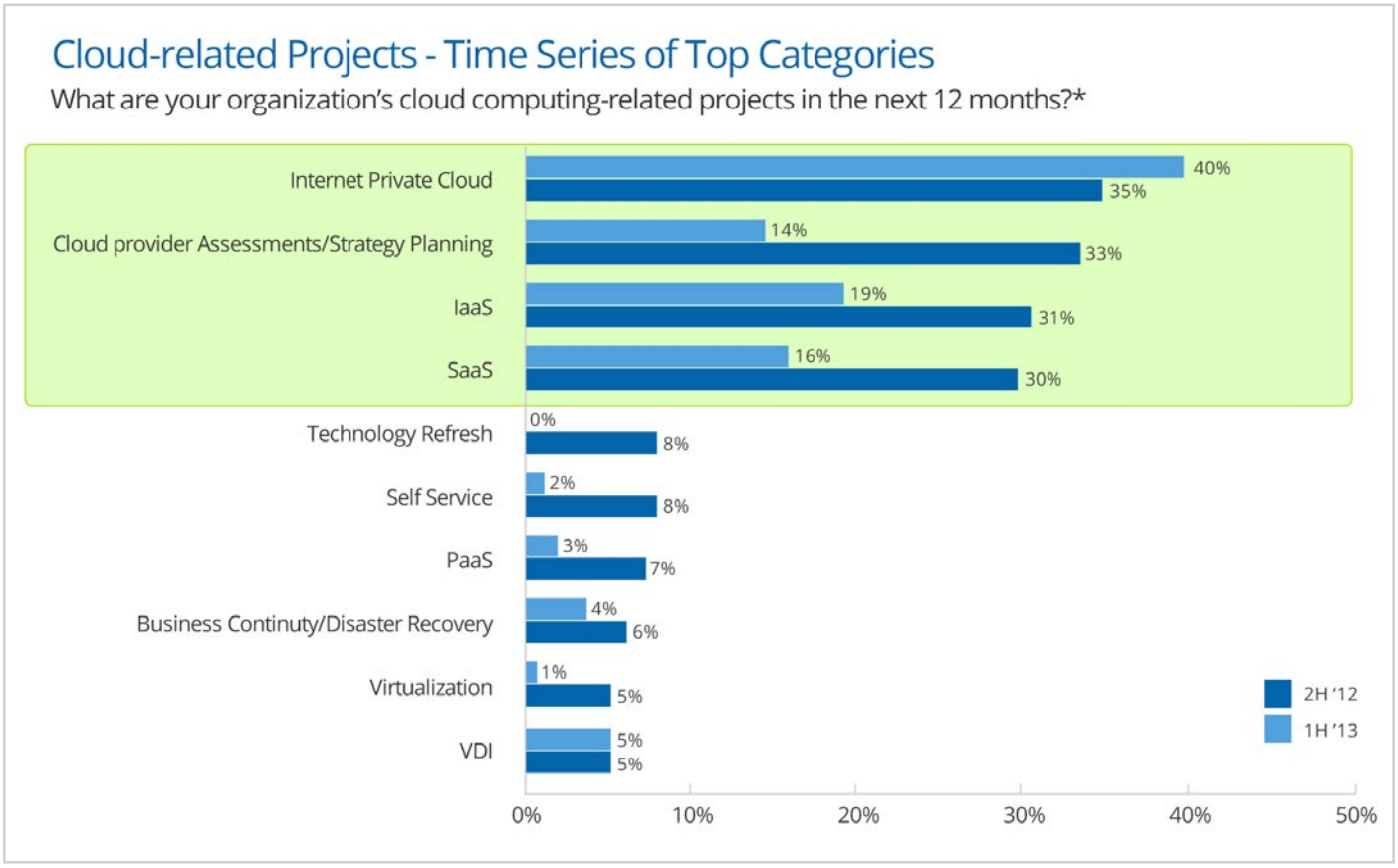
The **Cloud** is changing the way Organizations, Employees and Partners interact and collaborate. Using Cloud technology facilitates greater collaboration and increases Organizations' efficiency and effectiveness.

Within the Cloud solutions universe, Software-as-a-Service (SaaS) is playing a major role. The top four cloud computing-related projects on which enterprises are currently working are: Internal Private Cloud (35%), Cloud Provider Assessments/Strategy Planning (33%), Infrastructure-as-a-Service (IaaS) (31%) and SaaS (30%).

According to Gartner, SaaS will continue to experience healthy growth through 2014 and 2015, when worldwide revenue is projected to reach around $22 billion.

While there are many options available in terms of SaaS applications for enterprises, across the entire business spectrum, Siemer currently identifies three types in particular:

- **CRM SaaS:** CRM SaaS is, by, far the most requested application across enterprises worldwide. 40% of all CRM software sold in 2012 worldwide was SaaS-based.




*Source: TheInfoPro Wave 5 Cloud Computing Study*

- **Enterprise Resource Planning SaaS:** The SaaS Enterprise Resource Planning (ERP) market is dominated by SAP and Oracle, which command 25% and 13% of the market respectively. However, there are other vendors operating in the field and these are expected to continue to make progress over the coming years.
- **Human Resources Management SaaS:** Human Resources Management (HRM) SaaS manages all areas of HR activity in a Cloud-computing environment within a market that is currently worth US$ 10 billion and is growing at a rate of between 18% and 22% every year.

Gartner has stated that many Enterprises are now replacing their legacy systems with SaaS-based CRM systems. Enterprise clients also report that SaaS-based CRM systems are delivering new applications that deliver complementary functions which are not possible with older, legacy CRM platforms.

Various surveys and analyses into the reasons behind this big growth in SaaS agree on at least three. SaaS brings:

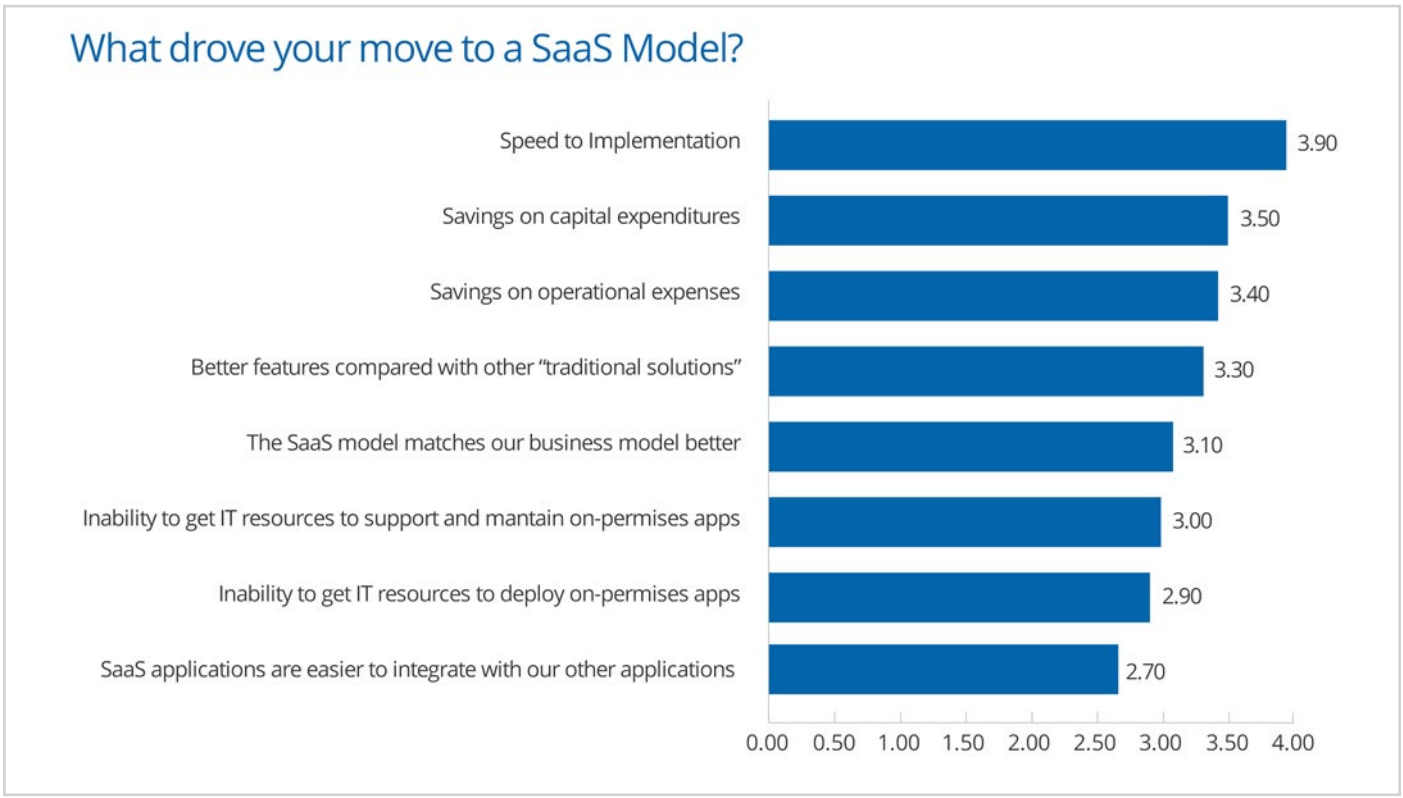
- Speed of implementation
- Savings on capital expenditures
- Savings in terms of operational expenses

The SaaS model is also playing a major role in helping to increase the size of the E-Learning market. Small and Medium-sized Enterprises (SMEs), as well as large Corporations are making the adoption of a SaaS LMS a key priority. In particular, large Corporations are switching to a SaaS LMS from in-house LMS solutions or they are now using a SaaS LMS as a secondary learning system for special training purposes.

The E-Learning market can still be considered a "niche" segment within different HR macro segments. In particular, E-Learning is subjected to the influences of sales trends related to **smart connected devices** and the **Internet megatrend** (that is, the spread of the Internet in the world).

This report has already mentioned the close link that E-Learning has with the broader Educational market. In addition, there are links between E-Learning and the current growth of **digital publishing** (self-publishing and e-textbooks). However, the digital publishing market is not -- as yet -- greatly affecting the E-Learning market.

Smartphone devices are now generally considered to be valuable assets that help improve work productivity.




*Source: Information Week Analytics SaaS Survey*

Recent research has shown, for example, that smartphone owning U.S. workers are considered "more productive" on the global scale. On average, 59% of U.S. workers work more than 50 hours a week -- and they say that they frequently rely on their smartphones as productivity tools (or performance enhancing aids) during their working week.

These figures about employees' behavior correlate with smartphone sales data.

According to IDC, the number of PCs will fall from 28.7% of the device market in 2013 to 13% in 2017. Tablets will increase from 11.8% in 2013 to 16.5% by 2017, and smartphones will increase from 59.5% to 70.5%.

Interestingly, a Forrester forecast claims that 18% of tablet sales will come from business buyers rather than these tablets being bought for personal use.

This sales data makes the Mobile Learning sector increasingly interesting -- especially so since, in the last two years, Mobile Learning has overwhelmingly been affirmed as a new:
Popular choice as a method of learning delivery
Business opportunity
Strategy for human resource management

The new frontier to address is the trend towards Bring Your Own Device (BYOD). At present this is a slow trend but it's one that is likely to be ongoing for some time.

BYOD refers to individuals taking their personal devices to workplaces. These are usually mobile devices. Increasingly, they seem to be being used to help their owners perform work activities (including formal training), both in and out of the workplace. Smartphones are the most common examples of these devices but employees often also use their tablets or laptops in the workplace.

It's also important not to overlook the Internet megatrend, especially since E-Learning is a part of this megatrend. The Internet opens doors to new learning technologies. This is confirmed by the following data:

### Households with a computer per 100 inhabitants

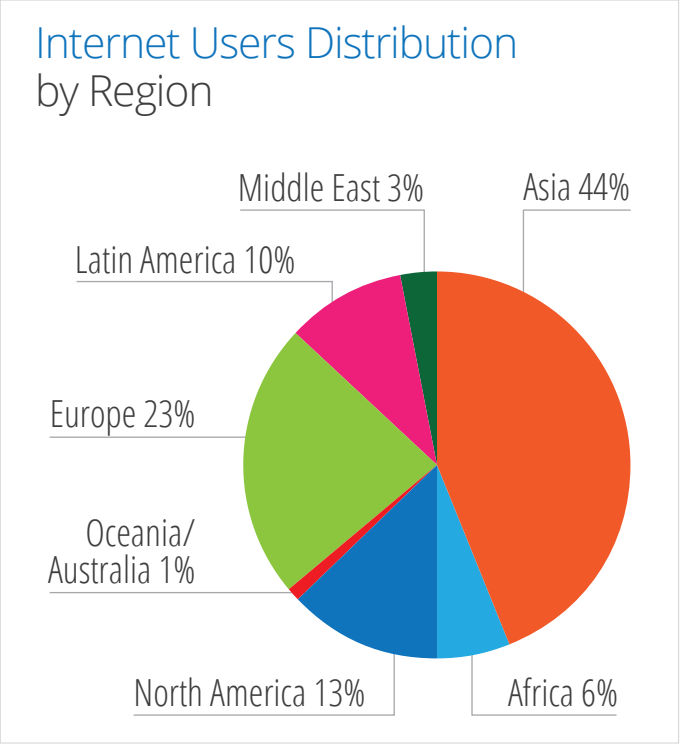
| 2012 | 2008 | 2005 | |
|---|---|---|---|
| 75.5 | 66.1 | 55.5 | **Developed nations** |
| 27.6 | 19.6 | 14.6 | **Developing nations** |
| 40.7 | 32.6 | 26.2 | **World** |

### Households with Internet access at home per 100 inhabitants

| 2013 | 2008 | 2005 | |
|---|---|---|---|
| 77.5 | 57.7 | 44.7 | **Developed nations** |
| 28.0 | 12.5 | 8.1 | **Developing nations** |
| 41.3 | 25.0 | 18.4 | **World** |

*Source: ITU (International Telecommunication Union)*

As the following image illustrates, Asia is driving this trend.

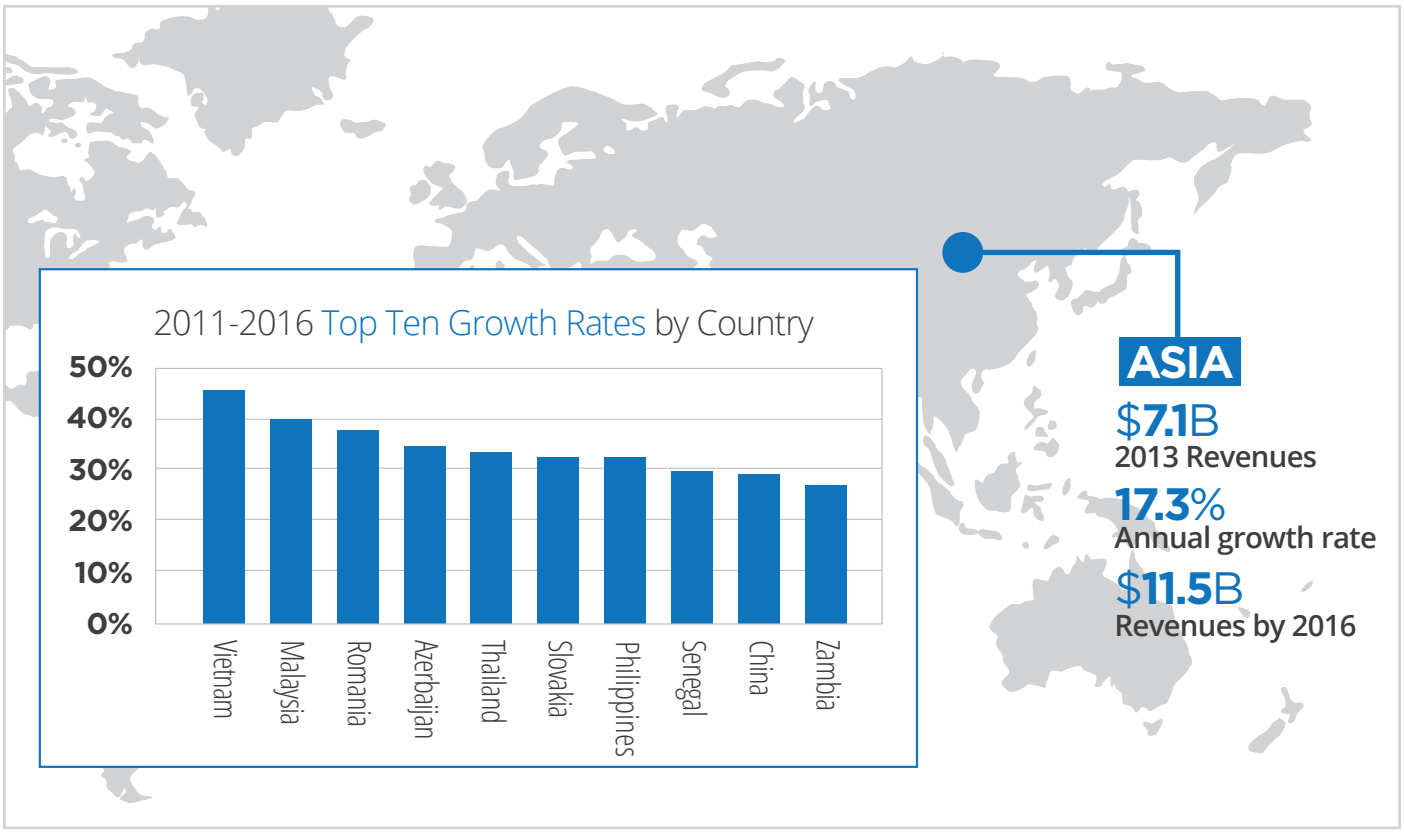



*Source: Internet World Stats, March 2011*
*The internet megatrend enables people to exchange and create increasingly more information and is also an important source of knowledge building and sharing. The internet also opens the doos to new learning technologies, systems and methods.*

However, when it comes specifically to E-Learning, the countries with the highest growth rates that are driving the bulk of the growth in this segment are not in Asia.

According to Ambient Insight, the growth rates in nine of these countries is above 30%. This is more than four times the worldwide aggregate growth rate.

**2011-2016 Top Ten Self-paced E-Learning Five-year Growth Rates by Country across all product types**

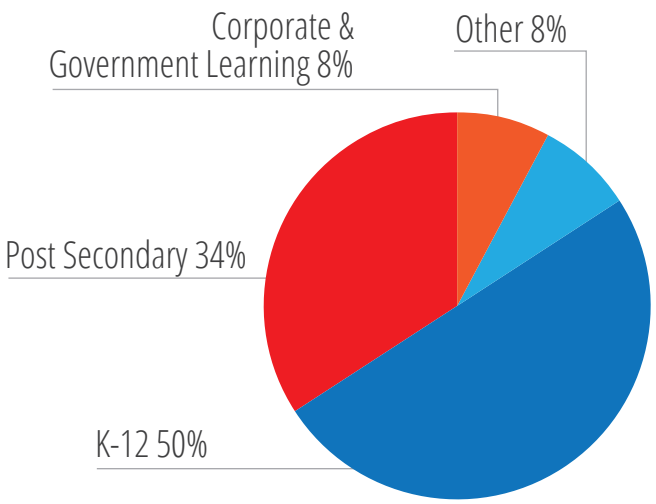



*Ambient Insight 2012*

# The Corporate-Training Market

While the corporate-training market has lagged behind other education-based sectors, it continues to represent a viable investment opportunity.

## Global Education Expenditure Breakdown by Sector 2012



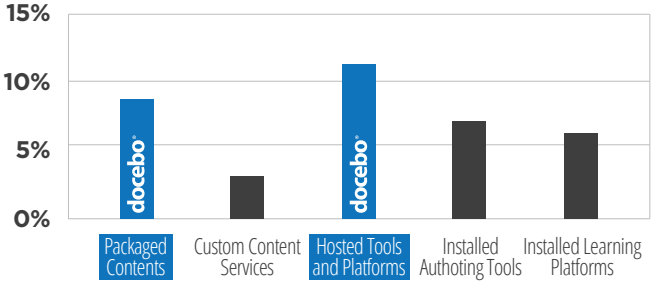

The **Corporate-training market** is among the most cyclical within the education industry. This industry experienced a low point during the period 2009 to 2010. Since 2010, employers' total spending on training and the amount spent per employee -- the key data used to measure this sector -- have been declining. It's also important to note that the size of this market is generally calculated to include corporate spending on facilities, salaries and overheads. In addition, there is often no distinction between in-house sourcing and outsourcing of the E-Learning resources.

In recent years, most of these assets have been drastically cut within Organizations (when considering all training services). Nevertheless, according to most observers, the corporate market related to outsourced services (net of all ancillary costs) has not stopped growing in recent years. Indeed, the percentage of outsourced services has grown to reach 42% of total expenditure.

## Training budget


Within the training industry, the E-Learning sector has grown consistently in recent years. All its subsectors (Packaged Content, Platform, and Authoring tools) show positive annual growth. **E-Learning platforms** are leading the market – especially those using the "hosted" formula. In second place are content-ready courses available for immediate E-Learning delivery.

## Growth rates by product




While these statistics relate to the overall market, it's important to recognize the difference in buying patterns in different countries. This is crucial when analyzing the nature of the buyers -- for example, differentiating between buyers in private companies and educational institutions.

In non-mature markets, especially where the educational component is dominant in E-Learning (including workforce

training projects rolled out at a national level), the main area of focus is **foreign language knowledge**. In these markets, the most interesting recent trend is the shift from a pure consumer market, in which the majority of the content is imported from abroad (from the more mature markets), to a market where domestic suppliers have started gaining market share.

In mature markets, **large companies are making the most impact** despite the long buying cycle. They can be early adopters since their content and related training programs cover such subjects as Management, Compliance and IT, as well as specific industry-related courses.

According to ASTD, Organizations are becoming more demanding when it comes to training and, specifically, more innovative methods such as E-Learning. Although the number of learning hours used per employee doesn't show linear growth, in the long-term it has generally increased -- as has the average percentage of formal learning hours conducted using technology-based models. Interestingly, award-winning Organizations, which tend to be numbered among the world's top companies, are seen as the most demanding in terms of training systems. They are also much more open to embarking on E-Learning projects.

depth of this impact strongly depends on the company's industry. It is not surprising that the technology sector, for example, places a great deal of emphasis on innovative training, and views success in this industry as being highly dependent on properly trained employees.

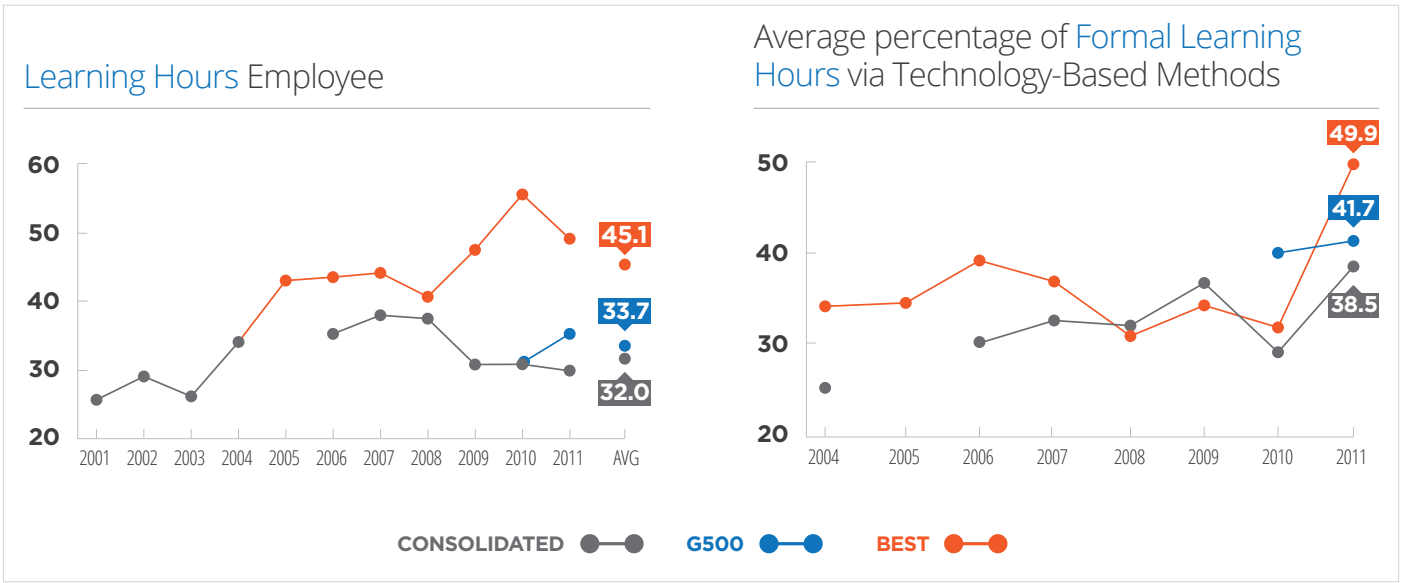
Simultaneously, E-Learning penetration in corporations is increasing, regardless of the company's size.

Since class-based training is more expensive, proportionately, for small and medium-sized firms, these firms are increasingly recognizing E-Learning as being convenient and cost-effective.

The direct training expenditure per employee in 2010 (in the U.S. Market) was, for companies with:

- Fewer than 500 employees: $1,605
- 500 to 9,999 employees: $1,102
- More than 10,000 employees: $825

When training is mostly delivered in person, firms with more than 10,000 employees spend less while reaching more, owing to the scale-based savings involved.

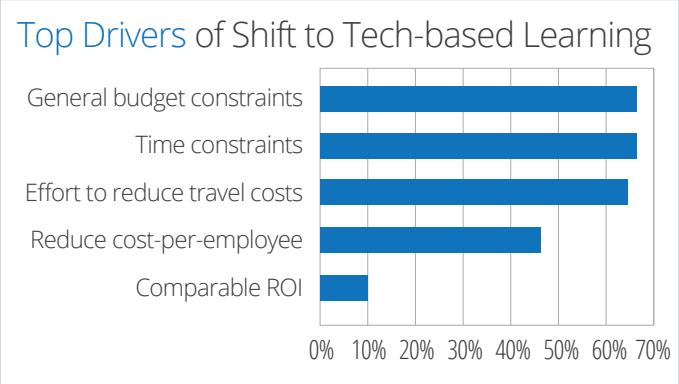



*SOURCE: ASTD.org*

*BEST: award-winning Organizations*
*G500: companies recognized in Fortune magazine's Global 500*

The heart of this topic is that education has positive implications for both the company and the employee. The

This data changes completely when training is delivered through E-Learning projects. Market acceptance of E-Learning has resulted in its increased use for both large and small companies. SaaS/Cloud E-Learning solutions are particularly suitable for Organizations ranging from SMEs to large institutions.




*Source: Novations Group*

General budget constraints appear to be the main drivers of the shift towards using E-Learning. Efforts to reduce travel costs and reduce the cost of training per employee point to key economic benefits arising from using E-Learning materials. However, there is another key driver: E-Learning tackles time constraints. In other words, E-Learning is not merely a solution which is attractive during an economic downturn but it is also an efficient and cost-effective solution when workers -- especially those in Organizations with a widely geographically distributed workforce -- need to be brought up-to-speed quickly on relevant knowledge and skills.

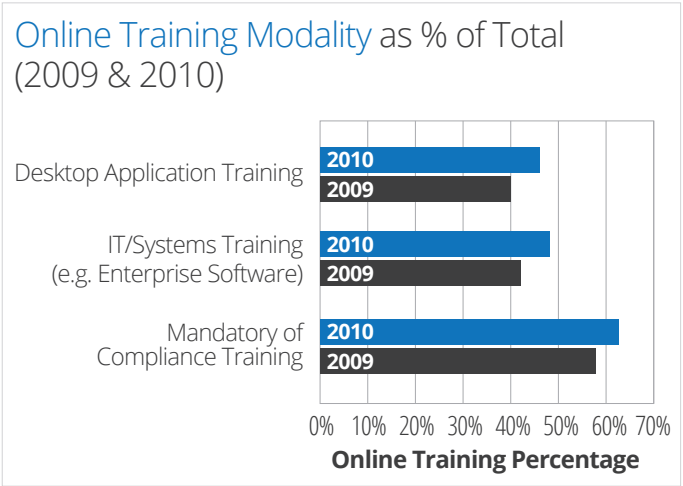
*"For any franchise agency, training is the main tool through which we deliver specific technical skills that are needed to undertake a specific activity, respecting the operating procedures adopted by the entire group. In addition, at Solo Affitti, where specialization and a highly qualified network is a part of our mission, training represents an added asset, a moment of growth, and an opportunity to professionally prepare our network. People's knowledge and skills are the most important assets for a company that wants to be both competitive, and successful. To increase and retain our "intellectual capital", we need to invest in every single agent and ensure that every single agency of Solo Affitti's network is recognized for its professionalism and reliability by the local communities."*

***Silvia Spronelli Vicini, General Manager, Solo Affitti spa***

*"Through cooperation and joint development of E-Learning programs we can secure a uniform practice in all our five trusts. In addition, we now get documentation of all internally run training. E-Learning will gain importance when we strive towards more systematic forms of training and competency development for our professionals. In the long-term, E-Learning will be used to build quality in our hospital trusts".*

***Hilde Rolandsen, Northern Norway Regional Health Authority (Helse Nord RHF)***

Where Content is concerned it's important to note that, within Corporations, the adoption of E-Learning tends to be consolidated in specific subject matter. Today, Compliance Training is the area where E-Learning is most widely adopted. More than 50% of training-related Compliance is now delivered online.




*Source: Training Magazine*

# K-12 Market

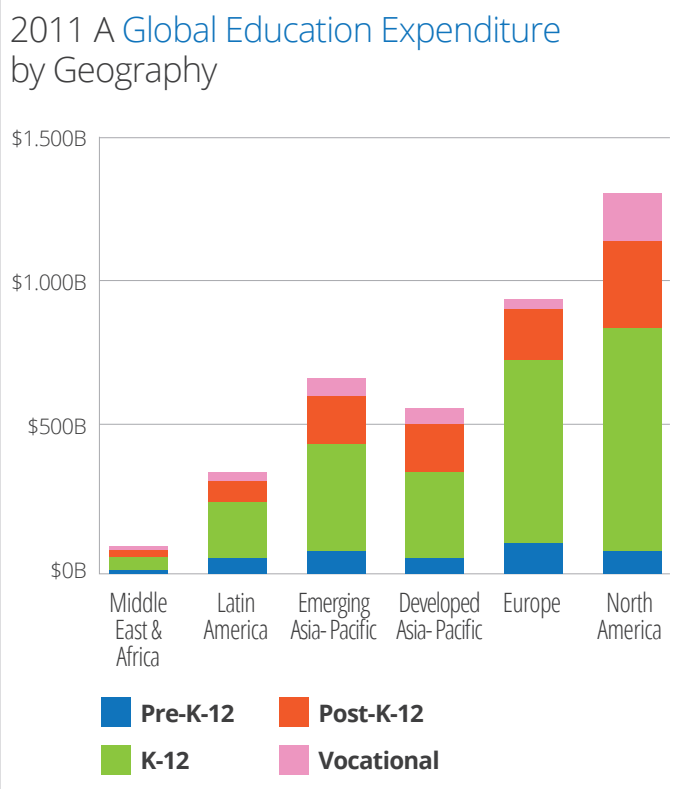
K-12 and post-secondary are two key sectors of the educational market. These sectors regularly attract a great deal of analytical attention from both private companies and governmental institutions.

This report focuses on data related to E-Learning, a subsector within the education market.

One of the key characteristics of the education sector is its large base of potential users. Importantly, each of these users may start in the K-12 or post-secondary markets but they have the potential to also become future users of vocational training programs.

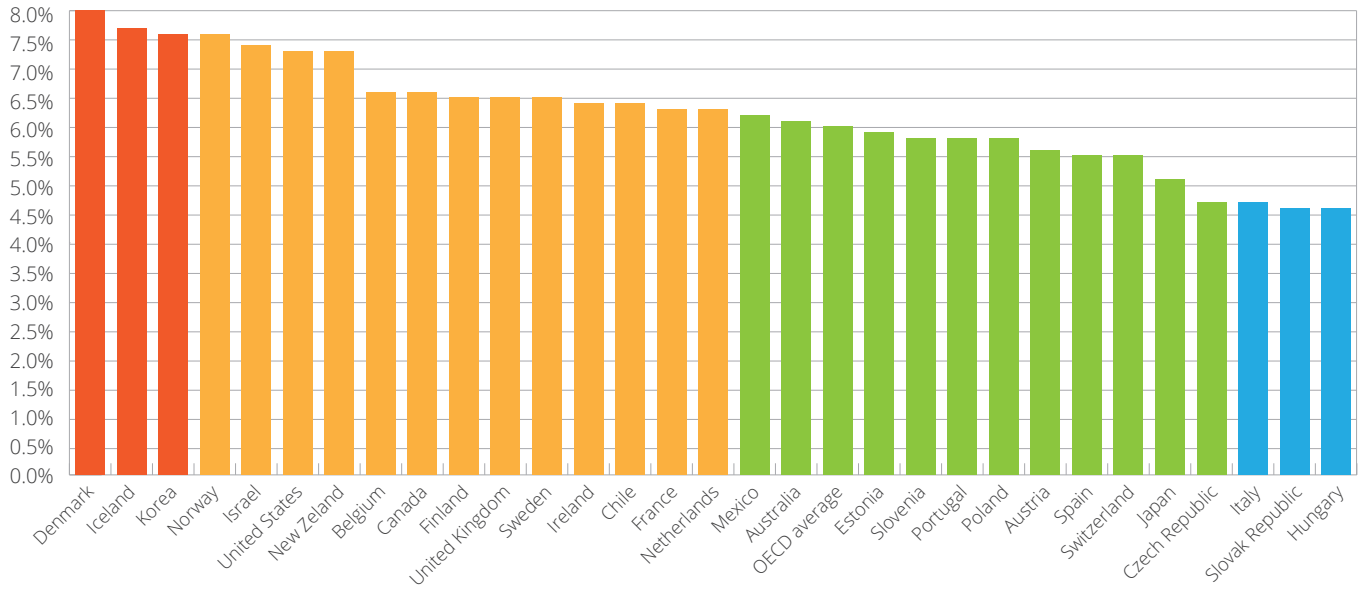
Their involvement in E-Learning projects at the K-12 and post-secondary stages will build a large base of users already accustomed to using such technologies in order to learn.

Figures relating to the worldwide education expenditure and expenditure on education as a percentage of GDP illustrate the size of this market and help explain the significance of the K-12 and post-secondary sectors in the education market.




*IBIS Capital Market "Global E-Learning investment review"*

## Expenditure on Educational Institutions as a percentage of GDP, all levels of education



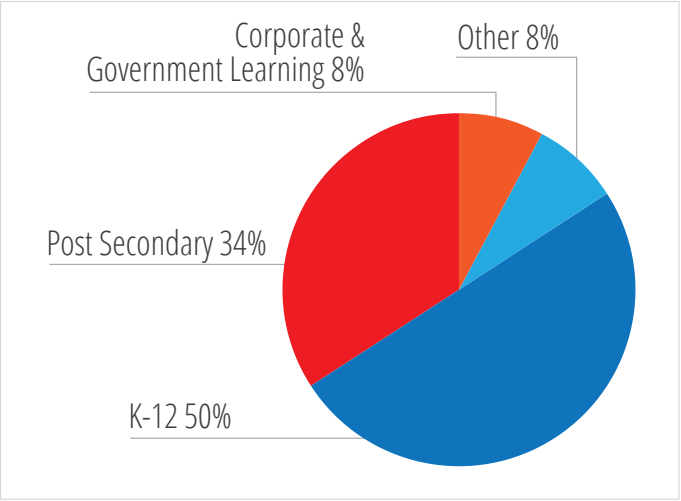

*Source: OECD Education GPS*

K-12 (kindergarten through 12th grade) is the term commonly used for talking about a person's first 13 years of schooling before entering university. It is also used by American multinationals when referring to the educational sector.
The K-12 sector has been the focus of great reform in most countries in the last few years.

The economic crisis has resulted, on one hand, in the revision of current public expenditure on education and, on the other, in the definition of new strategies that build on the relationship between skill acquisition and entering the labor market. Unsurprisingly, therefore, the K-12 sector has been overrun by a wave of modernization that has led to a growing interest in the application of new technologies for educational purposes.
The governmental point of view on the relation between K-12 and technology is summarized in this statement from the European Commission:

*"Today, new technologies offer unprecedented opportunities to make learning more effective, inclusive and engaging. Digital technologies can improve effectiveness of resources through economies of scale, expanding access to a wider number of people (e.g. through MOOCs28 and other Open Educational Resources (OER)) at lower costs or allowing teachers to focus on what they do best by automating or offloading more routine tasks. ICT can be used to foster more creative and innovative methods of learning (including personalized and collaborative learning), and it has the potential to facilitate collaboration, exchange and access to learning resources." (SOURCE: EDUCATION AND TRAINING MONITOR 2013)*

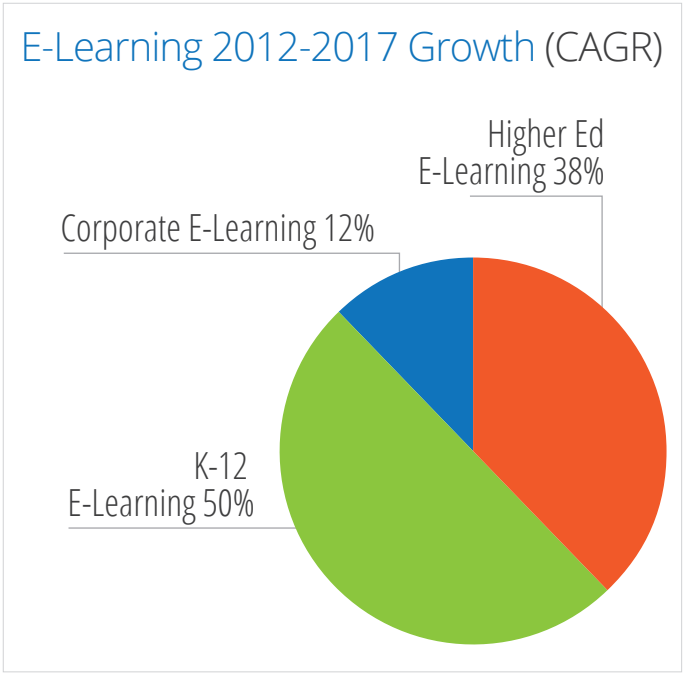
The K-12 sector includes public education bodies as well as the primary and secondary private education sector (both non-profit and for-profit). Consequently, the digital technologies market for the K-12 sector needs to include products and solutions for digital publishing, such as textbooks, tools for skills assessment and education apps, as well as tools for teachers.
Global Education expenditure has grown consistently in recent years and the K-12 sector plays a big role in this growth.



Focusing purely on distance education and, thus, ignoring the sub-sector of face-to-face education, the K-12 segment continues to represent the largest slice of the market.

Pearson, one of the biggest global players in the education sector, has put education-technology solutions at the center of its growth model. Subsequently, digital revenues, as a percentage of the company's overall revenues, have grown to 33% in 2011 from 20% in 2006 (SOURCE: IBIS CAPITAL).

In addition, GSV Advisors has offered an interesting breakdown of E-Learning sub-sectors by growth rate and projected market size.




*SOURCE: GSV ADVISORS*

Gamification tools and mobile devices play a major role as market drivers for the K-12 sector. These Gamification tools are particularly appreciated by K-12 teachers and stakeholders, notably because of the mix of skills that can be empowered by "playing" a single or social serious game. Many new and established companies are taking advantage of the opportunity to move into this expanding market which has an estimated growth rate of 37% CAGR by 2020.

According to Tech Crunch, in terms of youth and education App downloads, the time that people spend on mobile apps has already surpassed the time spent on web browsing. Within the K-12 sector, the most used mobile device is the tablet (including both cheap and high quality tablets).

All the players in this market are now rethinking their online offerings in order to be able to offer more on these devices.

It's also important to note that, in the K-12 sector, education technology plays a strategic role in the move from print textbooks to e-books. Due to the increased price of textbook, schools are quickly adopting different solutions. This means not only creating e-books (both paid-for and downloaded), but also providing easy access to e-books (renting without ownership).

However, the anticipated boom of e-book sales didn't happen in the past year. The newest trend is the scouting for an environment that can host e-books, as a sort of Learning Management System with a library of books.

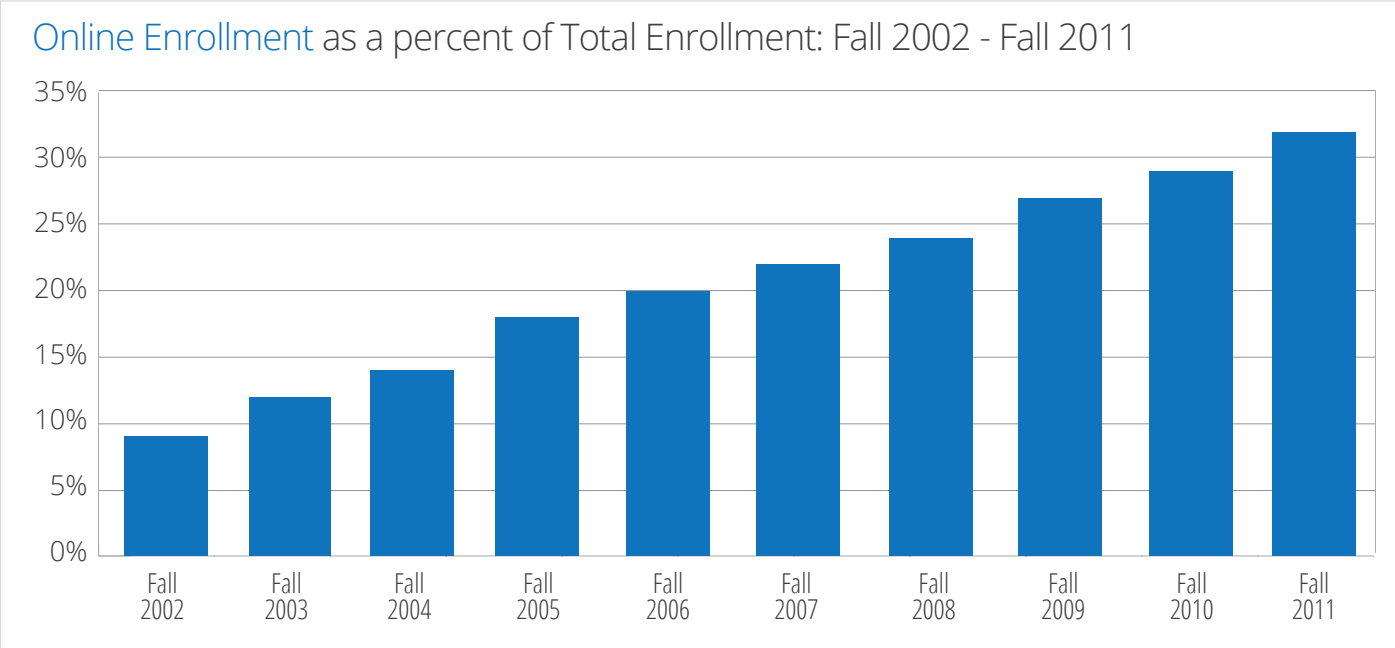
# The Post-secondary Market

In their tenth annual survey on the state of U.S-based online higher education, The Babson Survey Research Group reported that 6.7 million students enrolled in at least one online course during the fall 2011 term. That is nearly one-third of all students currently enrolled in some sort of higher education in the U.S.A.

So, students are enrolling in online courses.

- training is equally effective as, or more effective than, face-to-face training.
- Online training is considered strategically beneficial for students' flexibility.

While it's difficult to reach similar conclusions for Western Europe, the world's second most mature market, it's safe to assume that the growth rate in this sub-sector in this region is currently slower than in the U.S.




*SOURCE: BABSON SURVEY RESEARCH*

This post-secondary / higher education market is a key target for Massive Open Online Courses (MOOCs) or similar initiatives. The first providers in this field, Coursera-Udacity and edx, cover college or university level courses with no cost for enrollment. Nevertheless, in mature markets, specifically in the U.S. market, online courses are delivered from Universities, or similar institutions, to their students as well as to external users.

According to The Babson Survey Research Group - Learning on demand, in the U.S. post-secondary market:

- Online courses are considered critical for the long-term strategy of the institution
- Institutions' acceptance of the value of E-Learning is growing globally
- Academic leaders are starting to believe that online

According to recent Eurostat Data, the number of individuals in 28 EU countries who used the Internet to seek information with the purpose of learning, remained the same between 2009 and 2012. Nonetheless, there are few countries, such as Finland, where the use of the Internet for purpose of learning has grown significantly over this period.

### Individuals using the Internet for seeking information with the purpose of learning

% of individuals aged 16 to 74

| | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| EU (28 Countries) | 23 | 27 | 32 | 32 |
| EU (27 Countries) | 23 | 27 | 32 | 32 |
| Euro Area (Changing composition | 25 | 29 | 34 | 34 |

*SOURCE: EUROSTAT DATA*

The European education and training system is starting to embed digital technologies in its training methodologies, but full acceptance of the use of these technologies in learning still appears to be far off. Governmental surveys show that 70% of teachers in the EU recognize the importance of training in ICT-supported pedagogies, but their role in the development of a fully digitalized school is still weak. According to the European Commission, only around 30% of students in the EU are in digitally supported schools and as many as 35% of students are in schools which exhibit both weak policy and weak support for digital technology.

A different scenario seems set to emerge in the UK. The UK Government and other institutions are playing a big role in the creation of a cultural background that is encouraging rapid growth in the market for digital technology in education. The UK Government's Online Learning Task Force (which includes experts from Microsoft, Apple and Pearson) recommended an investment of £100 million in online education in order to help the nation build its brand, develop better online educational resources and become a major international player in the distance learning market.

In Asia, India is putting a lot of effort into becoming a mature market for higher distance education. Economic concerns and the current high cost of tuition fees are at the heart of India's keenness to become the most relevant player in the Asian E-Learning market for higher education.

In addition, in the Asian region, China is taking steps to create good quality distance education programs. This is chiefly due to China experiencing increased demand for highly trained members of its workforce, in order to compete effectively in global markets.

# Venture Capital in Education

With the inflow of an estimated $6 billion of venture capital over the past five years, E-Learning is being driven not only by startup dot-com entrepreneurs but also by big corporations, for-profit spin-off ventures, as well as big and small universities.

2012 saw a boom in E-Learning technology investment. One of the largest ever investments in this sector took place in September that year when Desire2Learn, a developer of an LMS, received $80 million.

According to Ambient Insight, since 2012, the investment in educational technology ("edtech") has taken two different routes: investment in K-12 and pre-K-12 start-ups, and investment in corporate-oriented businesses.

Many universities entered the E-Learning marketplace using non-profit models, leveraging their knowledge of the traditional classroom and applying this to the E-Learning environment. In particular, the MOOC market has grown vigorously.

Not only is there a proliferation of courses, there is now an expansion of MOOC platform providers and tools.
Today, there are more than 2 billion potential learners around the world. More than 70% of these are, reportedly, unable to afford a college degree. Yet, today, possessing a college degree appears to be more important than ever. McKinsey believes that college-educated workers will have a three-fold advantage in salaries and opportunities by 2020.

According to Josh Bersin, the Founder and Principal at Bersin by Deloitte: *"While this is still a young market, the demand is there and we expect it to grow exponentially in the coming years."* This market contains different business models, encompassing a wide spectrum of approaches. For example, there are **The Disruptive Businesses** (free-open access distribution) and the Education Giants (paid distribution) models.

**According to Forbes, there are several "disruptive" players in the education market: Cousera, Udacity, Udemy and so on.** All these players are running MOOCs initiatives. Some are completely free, while others charge basic fees to students.

| |
|---|
| **edX** is a joint venture by MIT and Harvard to offer their courses online to a worldwide audience, for free. The courses are not for credit, but the plan is to eventually award certificates of completion to students. The site launched in the fall of 2012. |
| **Udacity** is an online education platform founded by Sebastian Thrun, David Stavens, and Mike Sokolsky. The site currently offers 14 courses focusing on computer science, math, entrepreneurship and more. Over 100,000 students have enrolled on their courses globally. |
| **Coursera** is a free online education platform that features over 200 courses from 33 universities worldwide. The site was launched in April 2012 by Andrew Ng and Daphne Koller, who were Stanford University computer science professors. |
| **Knewton** is an adaptive learning company that provides personalized web-based instructions on a variety of subjects. It was founded in 2008 by Jose Ferriera. |
| **Udemy** is an online learning platform where experts teach courses on a variety of subjects. Some courses are free, while others are fee-based, with prices ranging from $5 to $250. |
| **Khan Academy** provides free online education with a wide range of courses. Launched in 2006 by the educator, Salman Khan, the site now contains over 3,400 lectures. |
| **MITx** will offer a portfolio of MIT courses for free to a virtual community of learners around the world. |
| **2U** is an education-based tech-company that partners with universities to offer online degrees. |
| Apple launched **iTunes U** in 2007. The app offers free lectures from universities, museums, libraries and other educational institutions. There are currently more than 75,000 files available for download. |
| **Code Academy:** A free online site offering lessons on how to code. |

## MOOCS

They will soon need a Sales Channel to penetrate the B2B market. A SaaS LMS is the key.

**$103M** RAISED BY LYNDA.COM

**$16M** RAISED BY UDEMY

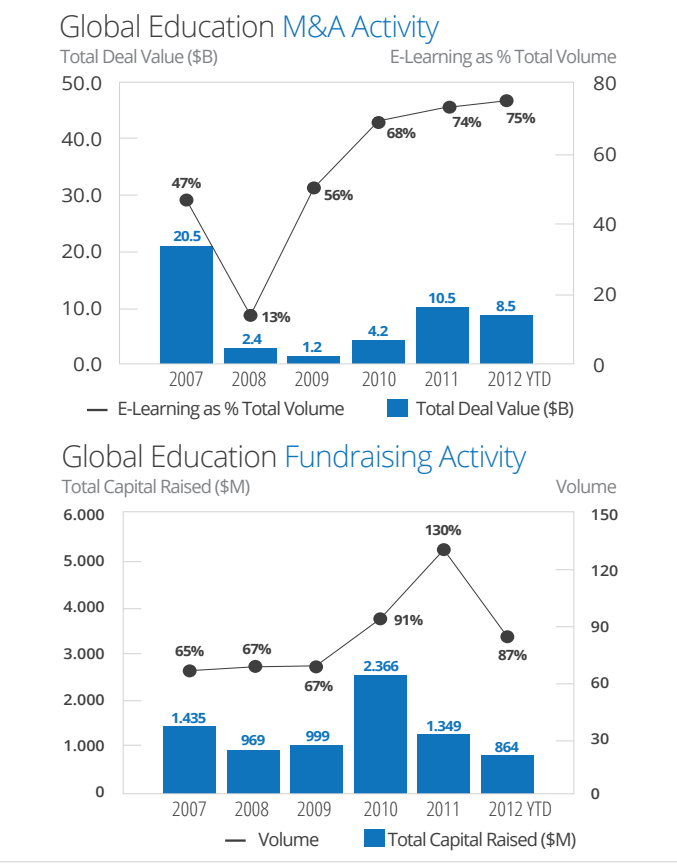
**$65M** RAISED BY COURSERA

**$23M** RAISED BY UDACITY

The revenues from the big players in the educational field have also grown significantly:

| Company | 2011 FY ($B) | 2004-2011 CAGR (%) |
|---|---|---|
| Pearson | 6.9 | 19.6% |
| Apollo Group INC. | 4.7 | 14.7% |
| Benesse | 3.7 | 8.9% |
| The Washingtonpost Company | 2.5 | 11.7% |
| Mc Graw Hill | 2.3 | (0.6%) |
| Career Education | 1.9 | 3.6% |
| Cengage Learning | 1.9 | 3.4% |
| K 12 | 0.5 | 32.2% |
| Blackboard | 0.5 | 25.2% |
| Capella University | 0.4 | 20.3% |
| Scholastic | 0.2 | (6.5%) |

Within this wide spectrum, there are a number of local players emerging. According to IBIS Capital, there are o**ver 3000 E-Learning companies** in Europe alone. Disruptive businesses, education giants and local players are at the center of mergers and acquisitions, as well as transactions and fundraising.




*IBIS CAPITAL - GLOBAL E-Learning INVESTMENT REVIEW*

The Corporate Learning market is also growing and, as such, it is attracting big investments from all over the world. The U.S. is the most active global fundraiser for Education. Europe only accounts for 6% of total fundraising volume. Some examples of deals related to the E-Learning sector are:

## E-Learning top ten M&A Transactions

Since 2011

| Target | Acquirer | Target subsector | Transaction Value £m |
|---|---|---|---|
| SuccessFactors | SAP | Management System | 3,764 |
| Taleo | Oracle | Management System | 1,921 |
| Blackboard | Providence Equity | Management System | 1,852 |
| SunGard Higher Education | Datatel | Management System | 1,775 |
| Kenexa | IBM | Management System | 1,397 |
| EmbanetCompass | Pearson | Management System | 650 |
| Renaissance Learning | Permira | Management System | 485 |
| Archipelago Learning | PLATO Learning | Management System | 366 |
| Deltak edu | John Wiley & Sons | Management System | 220 |
| Certiport | Pearson | Management System | 140 |

*Source: IBIS Capital Market "Global E-Learning investment review"*

## Recent E-Learning Fundraising Across Europe & the US

| Target | Investor | Target subsector | Transaction Value $m |
|---|---|---|---|
| Udemy | Insight Venture Partner, Learn Capital Venture Partners, Lightbank, MHS Capital Partners | Distribution | 16.0 |
| Memrise | NA | Distribution | 6.2 |
| Udacity | Charles River Ventures, Andreessen Horowitz | Distribution | 21.0 |
| Lingualeo | Runa Capital | Distribution | 3.2 |
| Desire2Learn | NEA, OMERS Ventures | Management System | 80.0 |
| Grockit | Atlas Venture, Benchmark Capital, Integral Capital Partners, GSV | Distribution | 44.7 |
| Docebo | Principia | Management System | 3.0 |

*Source: IBIS Capital Market "Global E-Learning investment review"*

Investing in the Distribution sector appears to be highly attractive at present, as investment returns from the Management Systems and Content sectors fall behind. However, thanks to the SaaS business model, the LMS Market has been growing fast so far -- and should continue to grow.

# Two case studies

Here are two case studies about the investments of two giant publishers in E-Learning.

## PEARSON


According to IBIS Capital, since 2007, Pearson has acquired 15 companies. Eleven of them were acquired after 2010 and all of them were digital-based / E-Learning businesses.

Since 2006, Pearson has invested some £2.5 billion in acquisitions. The company has invested across the whole E-Learning environment, including Content, LMS and Analytics.

**eCollege,** a Pearson company that delivers effective interactive learning experiences to students around the world, powers LearningStudio and OpenClass.

LearningStudio is a Cloud-based SaaS LMS that is intended to help institutions achieve their financial and organizational goals. Pearson LearningStudio offers service and support to institutions. In particular, that support includes strategic guidance to improve the quality and efficiency of customers' educational programs. It helps users to develop custom-built solutions involving content, technology and services.

OpenClass is a dynamic learning environment that helps educators bring social learning and experiences to their students. It's open to everyone and free to use. It has applications in Higher Education (especially for Academic Executives) and in Schools, as well as in the Private Sector (for Workforce Education as well as Professional development).

In addition, Pearson runs a number of strategic alliances. These include Cisco Press, a publishing alliance between Cisco Systems and Pearson; IBM press, the official publisher for IBM professionals and academia, and the New York Institute of Finance and Pearson collaborate to serve the financial education sector.

## Pearson's Acquisition Roadmap


*IBIS Capital Market "Global E-Learning investment review"*

## MACMILLAN

Macmillan Science and Education and Macmillan Publishers are divisions of the Holtzbrinck Publishing Group, a family-owned company based in Germany and one of the world's leading media companies.
Holtzbrinck has three global divisions:

- Macmillan Publishers
- Macmillan Science and Education
- Holtzbrinck Digital, Information and Services

Nature magazine and Nature.com are initiatives of Macmillan Publishers

Macmillan launched Digital Education in 2012 to capture opportunities in the consumer online education markets. Digital Education is a risk-tolerant strategic investor with a pragmatic approach to co-investment.
It invests (via equity) in Business to Consumer (BtoC) online education products: Veduca and Easyaula (Brazil), Maths Doctor (UK), Tutotira, English.

Digital Science provides software and information to support researchers and research administrators in their everyday work, with the ultimate aim of making science more productive through the use of technology.

It also invests in promising start-ups.

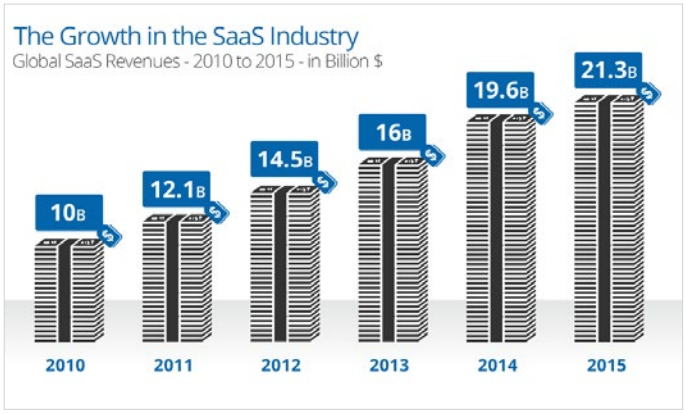
Macmillan Education publishes English Language teaching (ELT) -- including via E-Learning under the **macmillanenglishcampus** name. It also publishes school curriculum, Spanish curriculum, digital and online materials to suit the needs of classrooms around the world.

# Appendix One

## How SaaS growth and adoption is reshaping strategic and organizational models

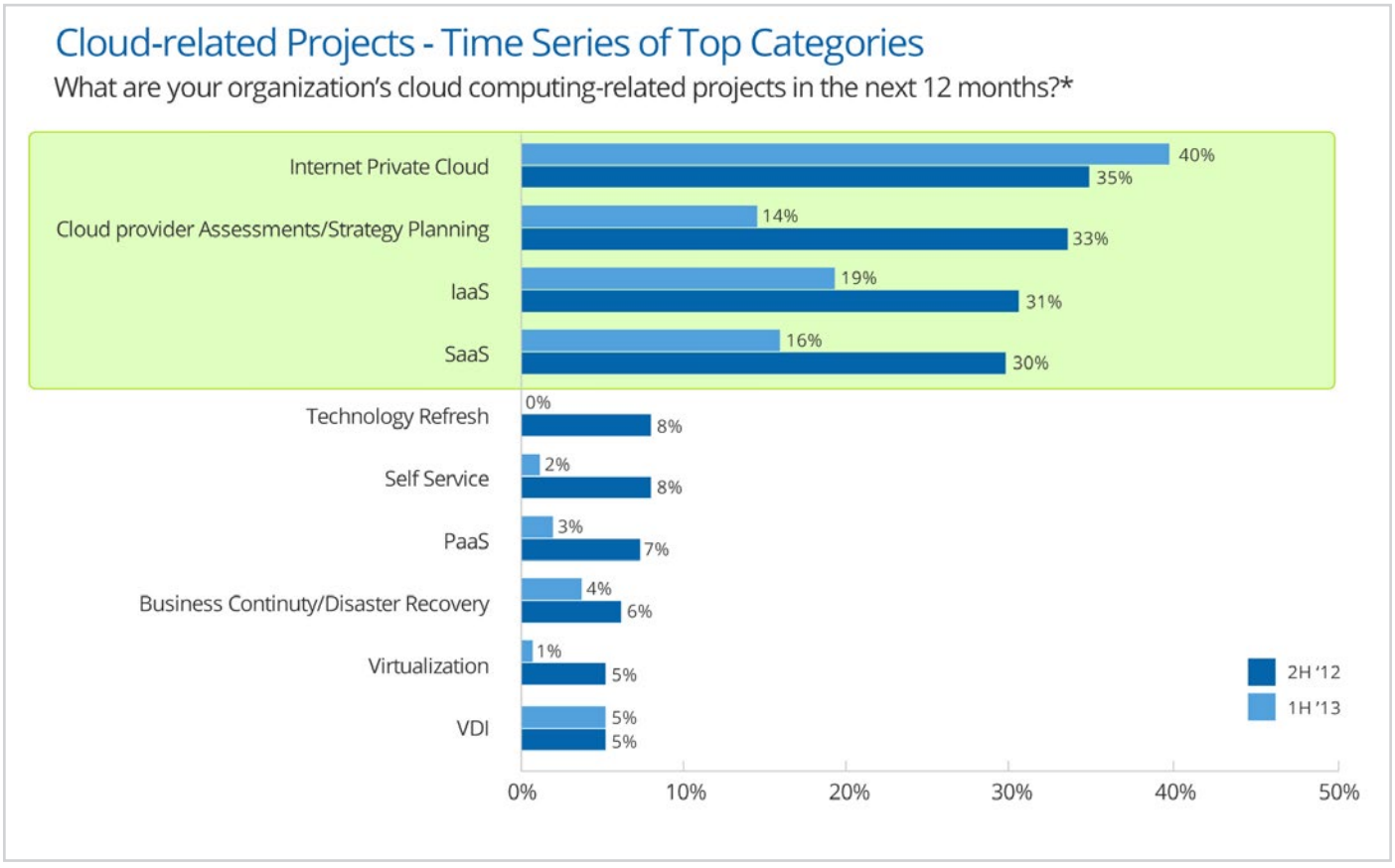
The Cloud is changing the way Organizations, employees and partners interact and collaborate. Using Cloud technology facilitates greater collaboration and increases Organizations' efficiency and effectiveness.

Within the Cloud solutions universe, Software-as-a-Service (SaaS) is playing a major role. The top four cloud computing-related projects on which enterprises are currently working are: Internal Private Cloud (35%), Cloud Provider Assessments/Strategy Planning (33%), Infrastructure-as-a-Service (IaaS) (31%) and SaaS (30%).




*Summer 2013 SaaS Industry Report from Siemer & Associates*

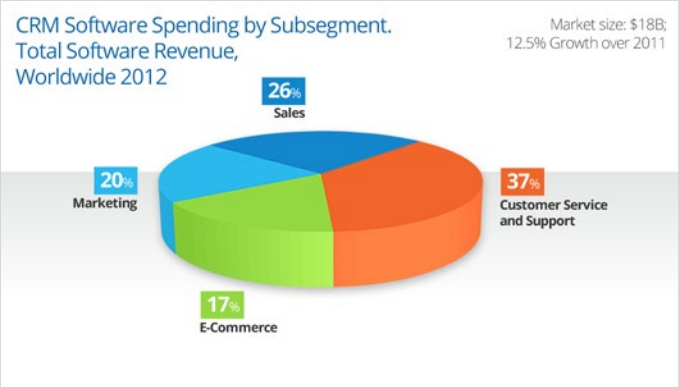
The Summer 2013 SaaS Industry Report from Siemer & Associates shows that some 60% of the global market volume is currently in the US. The main reason for this is the lack of cultural barriers in that market. Other nations are significantly lagging in terms of adoption, mainly because of: fear of third-party control, security concern, and a lack of appropriate Internet bandwidth.




According to Gartner, SaaS will continue to experience healthy growth through 2014 and 2015, when worldwide revenues are projected to reach around $22 billion.

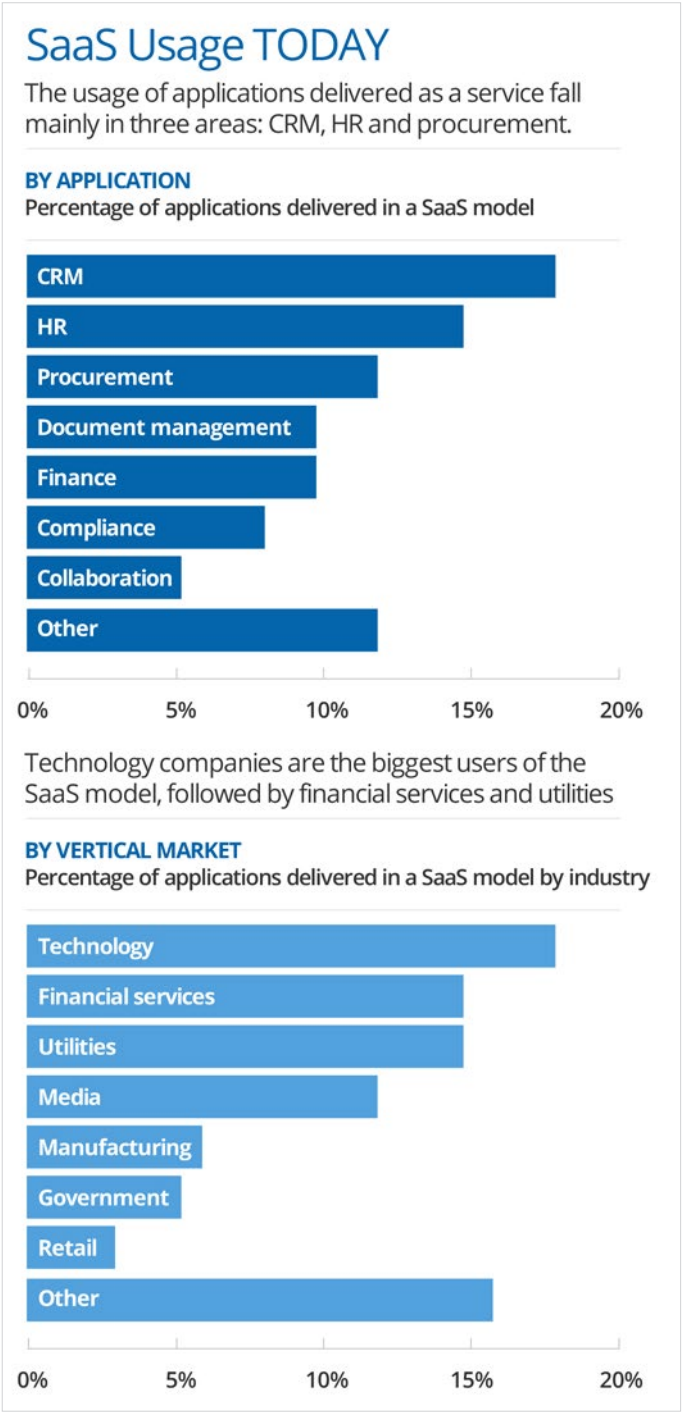
While there are many options available in terms of SaaS applications for enterprises, across the entire business spectrum, Siemer currently identifies three types in particular:

- **CRM SaaS:** CRM SaaS is, by, far the most requested application across enterprises worldwide. 40% of all CRM software sold in 2012 worldwide was SaaS-based.
- **Enterprise Resource Planning SaaS:** The SaaS Enterprise Resource Planning (ERP) market is dominated by SAP and Oracle, which command 25% and 13% of the market respectively. However, there are other vendors operating in the field and these are expected to continue to make progress over the coming years.
- **Human Resources Management SaaS:** Human Resources Management (HRM) SaaS manages all areas of HR activity in a Cloud-computing environment within a market that is currently worth US$ 10 billion and is growing at a rate of between 18% and 22% every year.




*Source: Gartner*

Gartner has stated that many Enterprises are now replacing their legacy systems with SaaS-based CRM systems. Enterprise clients also report that SaaS-based CRM systems are delivering new applications that deliver complementary functions which are not possible with older, legacy CRM platforms.



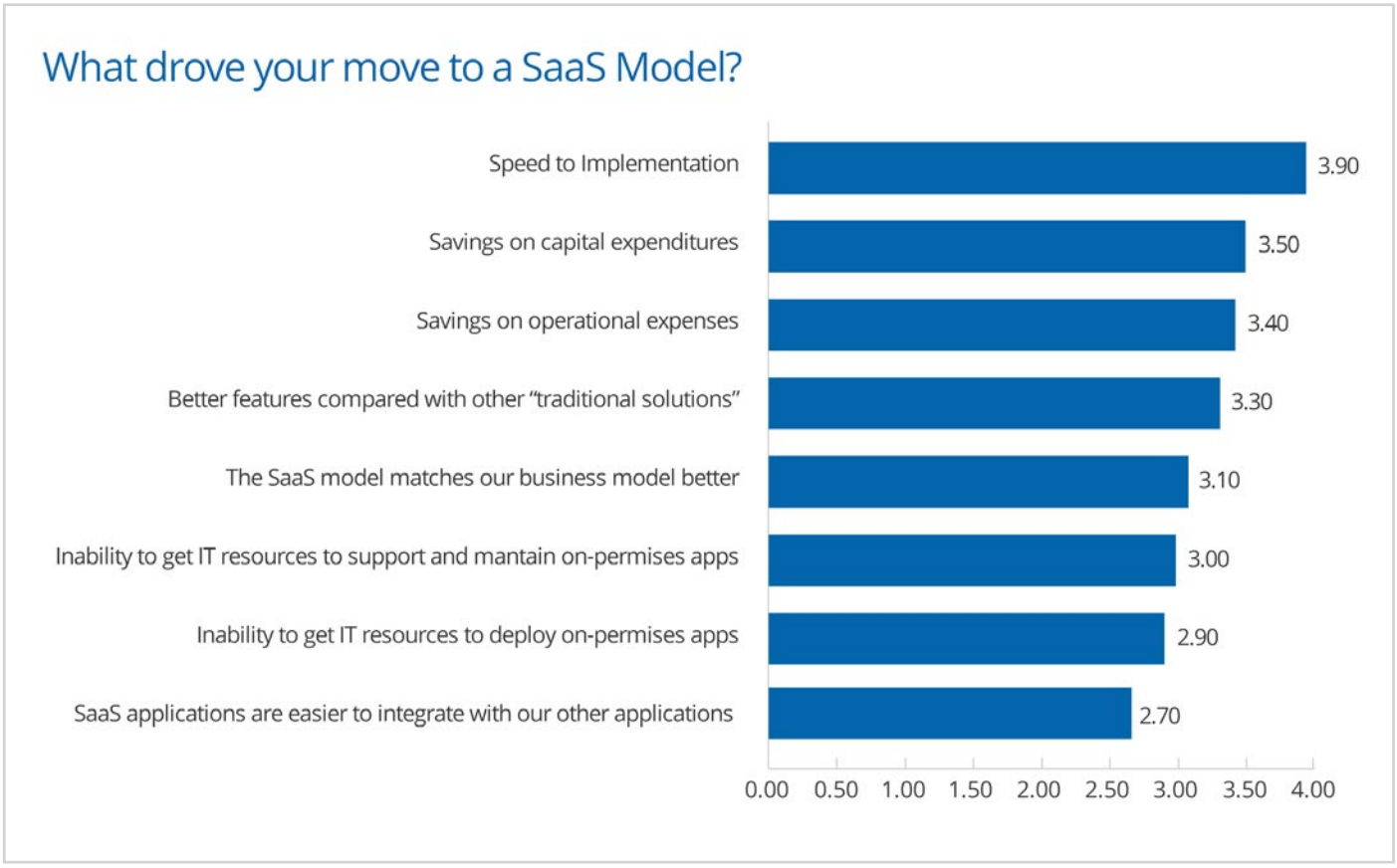

*Source: Gartner*

The biggest users of the SaaS model are technology companies, followed by financial services and utilities. Various surveys and analyses into the reasons behind this big growth in SaaS agree on at least three. SaaS brings:

- Speed of implementation
- Savings on capital expenditures
- Savings in terms of operational expense

The SaaS model is also playing a major role in helping to increase the size of the E-Learning market. Small and Medium-sized Enterprises (SMEs), as well as large Corporations are making the adoption of a SaaS LMS a key priority. In particular, large Corporations are switching to a SaaS LMS from in-house LMS solutions or they are now using a SaaS LMS as a secondary learning system for special training purposes.

| | Goals | Trends |
|---|---|---|
| BUSINESS | To control training costs | SaaS |
| | | Open Source |
| | | Content Management |
| | To get tangible results | Talent Management |
| OPERATIONAL | To optimize learning management | Adaptability |
| | To improve learning efficiency | Accessibility |
| | | Individualization |
| | | Socialization |




*Source: Information Week Analytics SaaS Survey*

# Appendix Two

## Research Method and Credits

This research was developed with information gathered through browsing websites and blogs related to E-Learning, HR software and talent management, along with an analysis of particular reports specific to the industry, notably by Ambient Insight, GSV, IBIS Capital and Tower Watson.

The data was analyzed and further strengthened by the knowledge garnered in the ten years of experience that Docebo has had in the E-Learning market. Docebo also asked its worldwide network of partners to comment on the data that was relevant to their own regions.

You can find all the sources -- errors and omissions excepted -- at the end of the document. Note: we apologize to any authors whose names might be missing from this list, since it has been hard to keep track of all the resources accessed on this lengthy journey of data collection.

The editor of this paper, **Valentina Piccioli,** Docebo E-Learning analyst, will be delighted to discuss, review, quote or help you in moving forward any additional analysis related to E-Learning.

**Sources:**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- http://www.informationweek.com/whitepaper/
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# Company Profile

Docebo is a disruptive Cloud E-Learning solutions provider that is revolutionizing the online training market with its Software as a Service (SaaS) Learning Management System (LMS). Established in 2005, Docebo has over 28,000 installations worldwide, and is sold in more than 65 countries around the world. The Docebo LMS offers an enterprise solution for mid-sized to large organizations. Customers benefit from Docebo solutions thanks to a scalable pricing model, a third party integration (via API), and reliable service available 24/7 to further enhance the user experience.

## Docebo offers

### SaaS

As a true SaaS (Software as a service) Cloud-based platform, Docebo is not just an E-Learning tool but is especially designed to be delivered in SaaS as an ecosystem of features and modules that can be adapted to any requirement. Docebo offers a Cloud LMS solution with content on 51 servers worldwide so that organizations of all sizes can adopt a fully web-based approach.

### Flexible pricing plans

Docebo LMS comes with a convenient monthly pricing plan tailored for med-large enterprises and making it a cost-effective investment that leverages the benefits and flexibility of a pure SaaS.

### Optimal user experience

With its user-friendly HTML5 user interface Docebo provides an optimal user experience on both desktop and mobile learning scenarios.

### Testing, tracking and reporting

Advanced test engine and course tracking features, combined with a rich offer of default and custom reports enable you to easily monitor and track performance. **Smart reports** unify data from different sources, helping you to measure the effectiveness of learning. Unlike other LMS solutions, users have the flexibility to download everything.

### Certificates management

Docebo gives the possibility to create, print and digitally sign training certificates. Release and expiration policies can be configured according to the specific needs of your organization

### App Marketplace

An extensive web APP Marketplace unique to Docebo for advanced customization and extended projects, the marketplace includes: Social Networks (Facebook, Linkedin, Twitter), Videoconference systems (Adobe Connect, BigBlueButton, Cisco Webex, GoToMeeting, OnSync, etc...), CMS websites (Joomla, Wordpress and Drupal), Salesforce, Google Analytics and Google Apps.

### Course Marketplace

Docebo has a third party Course Marketplace - an ever-growing library of online courses from the best international content providers - with more than 400 courses available in different languages accessible with a single click. Topics covered: Compliance, Health and Safety, Language, Soft Skills, Technology.

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International Women Online Journal of Distance Education

January, 2015 Volume: 4 Issue: 1 Success Stories ISSN: 2147-0367

# WHAT CANCER PATIENT LOUANN POIRIER LEARNED FROM STUDYING WITH ATHABASCA UNIVERSITY

**December 15, 2014**
**From Athabasca University News an shared December 18, 2014**

**Describing her studies with Athabasca University, Louann Poirier (BPA: Human Services, 2014) says, "I was the butterfly gleaning the knowledge in my courses." Now, as she copes with terminal cancer, she continues to draw inspiration from butterflies, as you'll see in her poem at the end of this article.**

**When Louann Poirier's cancer came back in 2014, she was told she had only a few months to live. She had been diligently working away at a human services degree from Athabasca University for over a decade, but now she feared she might not have time to finish it. And it was a dream she very much wanted to see through to the end.**

**Louann Poirier on graduation day with Dr. Jane Arscott, associate professor of human services. Louann explained her situation to Dr. Jane Arscott, an associate professor of human services at AU, and Jane arranged for Louann to receive her degree on Oct. 23, 2014. Jane travelled to Louann's home in McBride, B.C., and personally conferred the degree to Louann. Following are Louann's graduation speech and Jane's recollections of teaching and visiting Louann, who is an honours student, world traveller and mental health worker who spent years in Vancouver's downtown eastside helping mentally ill drug addicts. At the time of this article being published (December 2014), Louann is waiting to undergo chemotherapy.**

## Jane's Recollections of Louann

**Edited excerpts from Jane's account of teaching Louann and visiting her in McBride to confer her degree. Louann took her first AU class, The Inuit Way, in 1990. When the Bachelor of Professional**

**Louann Poirier on graduation day with Dr. Jane Arscott, associate professor of human services.**

**Arts in Human Services became available, she gained admission to the program in 2002 using block credit transfer from a one-year certificate in community mental health. The Prior Learning Assessment and Recognition (PLAR) process at AU drew on her learning from 19 years in the field of mental health and gained her entry to the**

**senior-level coursework for the Bachelor of Professional Arts.**


**Completing a course per year, she fit her studies around 16 trips to India and other sojourns to Vietnam, Nepal and Thailand with her husband Denis. Her love of travelling had been fuelled by time she spent teaching English as a second language in Indonesia and Japan. She recalled leaving one dog-eared course package in rural India after receiving word that she had completed the course successfully.**

**For Louann's project in Human Services (HSRV) 421: Advocacy from the Margins, she co-created a blog, Shelved Skeletons, named by her clients in Vancouver's Downtown Eastside with whom she worked as a harm reduction counsellor for nearly 11 years. The blog is no longer up, but it did continue for several years after she completed the course.**

**In 2004, she was diagnosed with cancer and took a break from her studies. Healthy again in 2005, Louann continued her coursework with renewed enthusiasm. When she experienced a recurring infection in 2011, she decided to settle for the Bachelor of General Studies in order to focus on her health. That option didn't work out, so she remained in the Bachelor of Professional Arts. Following a diagnosis of terminal cancer in September 2014, her dream of completing her degree became urgent. When she contacted me to see what might be possible, she was just a few credits and one exam short of reaching her goal.**

**Visiting Louann to confer her degree**

**Louann Poirier graduated with distinction.**

**When I met Louann in her hometown of McBride, population 500, the afternoon before the ceremony, our mutual love of learning established an immediate rapport. I apologized for having had the first students in the program, including her, write 10 essays to ensure they covered all the material — now there are just three. I also had to ask about the one C on her transcript, worried that I might have been the "hard marker." She explained she had been undergoing treatment for cancer at the time, which interfered with her usual diligence. The next morning, gowned and hooded, I read the graduation petition and pledge to Louann in front of a small group of her family and friends, and Louann made the graduand's promise to be loyal and bring honour to the university. When she kissed the parchment and smiled broadly for the camera, her dream been realized.**

**Athabasca University makes a difference in the lives of our students and also in the many other lives the students' lives touch. Facilitating Louann's degree completion has been a highlight of my years of teaching and coordinating academic programs at AU.Thanks, Lou, for sharing your educational journey with the AU community. Your determination, your perseverance, and your equanimity affirm your personal philosophy.**

**Edited excerpts from Louann's graduation speech, which concludes with her poem "Butterfly Ditty."**

**I see my studies at Athabasca University over the years as a metamorphosis experience, a**

**transformation that gave me the ability to see myself and others as splendorous beings with strengths.Louann's**
**"Butterfly Ditty"**

**I was the butterfly gleaning the knowledge in my courses and then taking it back to the Downtown Eastside of Vancouver where I worked with mentally ill drug addicts. The courses in health, criminal justice, women and gender studies and human services broadened my understanding of the people I was serving, and it helped me take that knowledge to new levels, especially in harm reduction and in facilitating groups. It gave me the chance to research and implement interventions to help people have options rather than die on the streets from overdose.**

**Today I am meeting another experience in my life, that of a terminal illness. I will be viewing it as another adventure with a meaningful outcome, which I'd like to express now with a Butterfly Ditty:**

**Describing her studies with Athabasca University, Louann Poirier (BPA: Human Services, 2014) says,**

**"I was the butterfly gleaning the knowledge in my courses."**

**Now, as she copes with terminal cancer, she continues to draw inspiration from butterflies, as you'll see in her poem at the end of this article.**

## BUTTERFLY DITTY

**I will flit**
**through the clouds**
**of my soul**
**discover the things**
**that unsettle me**
**secure in not knowing everything**

**growing from a spindly cocoon**
**to the splendorous being I am**
**pretty colorful wings**
**filled with energy and peace**

**having everything**
**I want and need**
**loved sheltered**
**by the golden firmament**
**the world is my home**
**happy free**
**full of devotion**
**my wings can take**
**the winds and storms**

**Louann POIRIER**

# Some Comments for Her

**1. Mark Crawford (@markc007) says**
**December 19, 2014 at 3:58 pm**

**Congratulations, Louann. This is really an inspirational story– it shows how distance learning and PLAR can work for students— and how a student can be a truly great reflection upon AU.**

**Reply**

**2. Suzanne says**
**December 21, 2014 at 5:37 am**

**Congratulations Louann! May you continue your metamorphosis with splendor and strength and be surrounded by love always.**

**Reply**

**3. Carolyn Hill says**
**December 21, 2014 at 7:42 am**

**Louann, your story is an inspiration to those of us who get overwhelmed juggling full-time career, family and life struggles. I am working on my degree at the pace of one per year which at times feels it will take a life time to achieve. Thank you so much for sharing your story and CONGRATULATIONS …. you did it!!**