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17 Training and Development in the Digital Era

17.1 Introduction

Training is a process through which individuals are helped to learn a skill or technique. The skill may be manual, as in using a keyboard or rather intellectual, such as negotiating a contract. There is often an end-point, perhaps the achievement of a specific data-entry speed. Progress in today's digital era places emphasis on the growth of the individual, relating to acquiring a broad range of planned activities and experience that is most commonly acquired through the extensive use of a computer or other means of modern technology. The Internet has far-reaching implications for the availability of information, for education. It is changing the way we work and creating new businesses that support technology. At the same time, technology and the Internet also provide new techniques for trainers to use in the process of training itself. However, this can affect interpersonal communication.

The basis for most training remains the traditional training process system. This comprises of four main steps, such as identifying training and learning needs, devising a learning plan, delivering training, and evaluating the outcomes.

At the basis of our education, our self-progress lies on learning or better said, self-learning. Learning takes place when an individual has understood and internalised new information and/or has developed a new skill as a result of experience. Evidence that learning has taken place may be inferred from a change in an individual's behaviour. Learning is an active process, which may occur socially, systematically or experientially. All development is self-development that is people can teach, train and coach you, but nobody can learn for you. Learning is a 'do it yourself' activity. Information technology facilitates self-learning as never before, since it has broadened and deepened the available range of methods and media through which learning may take place. Harrison's (2005, 269–73) 'learning event' is based on the training process system. She defines the 'learning event' as 'any learning activity that is formally designed in order to achieve specified learning objectives'. (Marchington & Wilkinson, 2005, 242).

This typically involves the following: establishing needs, 'agreeing the overall purpose and objectives, 'identifying the profile of the intended learning population', selecting strategy and agreeing on direction and managementselecting learners and producing a detailed specification, confirming the strategy and designing of the event; delivery'(Marchington & Wilkinson 2005, 242), monitoring, and evaluation.

There are clear advantages in using structured and sequential models for analysing the training process. Whereas training is needed in the shorter term, to carry out tasks that are needed now, the term 'development' refers to the broader landscape. It relates to the future, to the longer-term development of people throughout their careers,

providing them with the kind of confidence, maturity, and stability that enables them to adopt greater responsibility.

Training produces competence, while development produces continuous psychological growth/personal development. It could be said, therefore, that training is for now, while development is for the future.

17.2 The Theory of Motivation and the Protheus Effect

Motivation is the key factor in a successful training and development. While there is no universal definition of motivation, it is generally accepted to be the willingness to apply one's effort towards the achievement of a goal that satisfies an individual need. It is a natural human response to a stimulus. The response involves action designed to satisfy a need or attain a particular goal. Learning motivation can be defined as one's willingness to apply one's efforts towards the individual's long-term goals, his development, while all his needs are satisfied, especially the individual's needs of achievement, as we will explain in the following paragraphs. There is no such thing as an unmotivated person and it is motivation that triggers behaviour. One's behaviour is closely linked to one's development. Training leads to development and development leads to an individual's behaviour. Going further that thinking to a simple training that we conduct, our method as trainers, the environment, the devices that are used, the up-to-date information, all help to a better development of an individual, and moreover, to the individual's behaviour. We can relate here to the theory of behaviourism:

> "Behaviourism, also known as behavioral psychology, is a theory of learning based upon the idea that all behaviors are acquired through conditioning. Conditioning occurs through interaction with the environment. Behaviorists believe that our responses to environmental stimuli shape our behaviors ".[1]

The main interest of a trainer is to achieve his or her objective by maximising the human resource. The goal is to elicit a performance that will lead to the development of the individual and the achievement of the course's purpose. Usually, a motivated sustained workforce is a high-performing workforce. When the student does not have a proper environment, but moreover, when he lacks the proper means of information, the proper devices for a proper training to take place, the work he produces is rather poor and the outcome can be analysed in his later development and education. His behaviour is linked to his education and development.

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[1] http://psychology.about.com/od/behavioralpsychology/f/behaviorism.htm, accessed [27.04.2015]

Motivation is a constant factor in human behaviour and it cannot be switched off. Even if one is to drop to sleep during a course, a psychologist would rightly assume that it is what you were motivated to do. The trainer's aim should, therefore, be to change employees' motivations from what they are to higher standards in order for the student to progress, not regress, and in order to develop to his maximum potential:

> "Motivation leads to performance and the degree to which a knowledgeable and skilled individual will apply his/her best effort to a task is determined by the degree to which he/her is motivated" (Bauer & Kenton, 2005)

Additionally, it is important to bear in mind the element of individual differences. People have their own unique attitudes to work, to the university/education, to the trainer; they come from different cultures and relate differently to the trainer that is himself/herself an individual and they are not all turned on by the same motivators or possible types of outcome/development.

It is very important to underline that when we refer to trainers, we refer to teachers, professors and all the persons qualified, skilled to coach/train/teach a proper course regardless the domain, to transfer information from the receiver-trainer to a recipient of nformation-student, trainee, through up-to-date, efficient means whether we speak of the Internet or face-to-face teacher-student interaction with the goal of the trainee's development professional and implicitly personal–global development.

Figure 17.1: The systematic training cycle.

We should, when referring to training, take into consideration the systematic training circle. The latter is made up of four interdependent stages (Tyson & York, 1996).

The model has been successfully used in training within the public sector for many years and is regarded as a sound basis for cost-effective training. The two researchers argue that the interdependence of the components is crucial. The malfunction or neglect of any one of them inevitably affects the others or the total system. Thus, if course analysis has not defined the criteria for effective performance, training needs cannot be identified by performance appraisal. If needs have not been properly identified, it is not possible to design and provide needs-related training to asses ultimate effectiveness in terms of subsequent work performance.

Motivation lies at the basis of any type of training and development. Research has shown that in an organised learning situation, such as a training course, the amount of learning is determined by three factors: the personal characteristic of the learner, such as the motivation to learn and the intellectual ability to understand what is being said and done; the effectiveness of the trainer in terms of his or her knowledge and competence as a trainer, and the nature of the methods and media through which he or she delivers the training; the physical situation in which the training takes place. For education, training and development to be successful, learning must take place. The circumstances in which learning is acquired have been the focus of academic interest for at least one hundred years. The ultimate purpose of training must, nevertheless, be the improvement of academic performance. Individuals, however, may regard training as one of the means by which they can improve themselves in order to enhance their future careers. Viewed in this way, training may be seen as a developmental driver. Developing a training course involves professional expertise of the trainer both pedagogical and psychological, without taking into account the domain taught. Today's digital means such as the Internet, the devices that must be always up-to-date with the needs of the students' computers, video devices, help training and develop the individuals' maximum potential. In order, however, to speak about competences, training and development, we must identify the five fundamental human needs, as described in human psychology:

> "Created by psychologist Abraham Maslow, the hierarchy is often displayed as a pyramid, with the most basic needs at the bottom and more complex needs at the peak. The four lowest-level needs are what Maslow referred to as D-needs (or deficiency needs). These needs are due to a lack of something and need to be satisfied in order to avoid unpleasant feelings and to move on to higher level needs. The uppermost needs in the hierarchy are referred to B-needs (being needs or growth needs) and involve the desire to grow as an individual and fulfil one's own potential"[2].

The scientist believed that all of us are motivated by needs. Maslow Hierarchy of Needs describes how rudimentary needs must be fulfilled before more complex needs or desires are contemplated. There are as mentioned above, five stages: biological and physical needs, safety needs, belonging and love needs, esteem needs, and at the top,

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2 www.psychology.about.com/theoriesofpersonalities/malows-needs-hierarchy, accessed [27.09.15]

self-actualization. What is new in today's digital era is that at the base of the pyramid lie the so-called Wi-Fi needs, adding another level at the ground of our fundamental needs in life. We cannot work properly without our avatar personality, our Facebook or Twitter image. We need to be liked, we need appreciation via the Internet, we need to be shared and posted. We gather friends from people we haven't personally met and give a clear depiction of our location. Everybody knows the portrait of our perfect self. The *Dorian Gray* we draw is flawless. This is also known as the *Protheus Effect*.

> "Whether it's an animated alter ego in a game or online community, or a two-dimensional Facebook profile picture or Twitter, an avatar, for lack of a better explanation, is our incarnation on the Internet — the virtual image we expose every day. Our avatar is how the online world sees us. It's also how we see ourselves"[3].

The only exception to Oscar Wilde's portrait is that we share it, we don't keep it locked. We portray a reality that is too much digital and less human, leaving the interpersonal down-to-earth reality an obsolete detail. University interaction, although professional tend to follow the trend. The World Wide Web doesn't distinguish between racial or gender identities and offers a permanent curiosity on exploring and discovering new worlds.

Distance education, e-learning seems to be the quickest method in the digital era. The bottom traditional four levels of needs are described as deficiency motivators by Maslow, because when we fulfil these needs, we satisfy a need for something we do not have. The top level need is characterised as a growth motivator because self-actualization means that a person is realizing their personal potential, seeking peak experiences for personal growth. As facilitators and instructors, it is important to understand why the students are in the class. Students are individuals at different levels within Maslow's hierarchy of needs, because the motivations for being there are unique to each situation. By addressing the needs, a professor should make every effort to see that the basic needs are fulfilled. The class environment should be physiologically and mentally healthy. To properly address safety needs, the training environment must be perceived as free of threats and dangers. To fulfil the social needs of the next level, the teacher or trainer must create a feeling of acceptance and reinforce positive class dynamics. The esteem needs of students are fulfilled by recognition of achievements and regular progress updates. The final stage of self-actualization can be addressed by having the students create meaningful projects that enable them to use their innovation and creativity. There is no substitute for experience.

3 http://mediashift.org/2011/09/our-avatars-ourselves249, accessed [27.04.15]
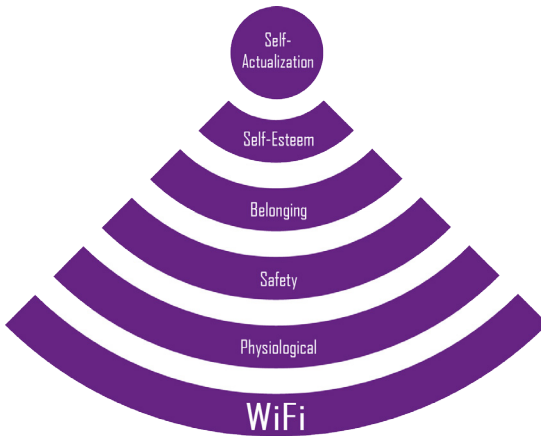
Figure 17.2: Maslow's pyramid of needs reinterpreted in the Digital Era.

In contradiction to Maslow's classification, there were other three categories of need added by Paul Alderfer in 1972, a reinterpretation of Maslow's pyramid of needs. Essentially, what the latter did was to draw a parallel between Maslow's five categories and three categories of his own, which he referred to as existence, relatedness, and growth.

Existence needs are concerned with physiological, safety and security needs and cover all needs of a material nature, which are necessary for human survival. Relatedness needs mean those for love, esteem and belongingness, while growth needs are represented by achievement, recognition and the realisation of potential: what Maslow called self-actualisation. This is also known as the ERG theory. In the 20th century, two main approaches to motivation were proposed, theories that are followed and are underlined in training today as well. The first is based on content theories and state that people are said to have needs which may (to some degree) be satisfied by the factors that make up the task. Second are process theories, in which our experience has taught us that a certain behaviour produces particular outcomes and we do in the expectation of achieving desired outcomes. In this way, motivation is generated through a mental process, rather than as a response to particular environmental factors.

17.3 Digital Learning in Traditional universities versus Non-traditional universities (Technology-based Learning)

Online web-based universities emerged with the development of computer conferencing systems and the World Wide Web; many new online universities have been established in the past years. These universities are coming into existence

specifically to use new web technologies that support learning independent of time, location, but allow for students to study together. They offer opportunities for students to learn through asynchronous interaction with each other and a faculty member. A classroom environment with student and faculty interaction is created, but students are not all in the classroom at the same time. Online universities define their competitive market advantage based on the convenience of electronic computer-based access they provide to specific programs. Unlike the national distance learning universities, which have a historical tradition tied to correspondence study and the post office, these new universities focus on the use of new technologies to provide not only improved access, but also improved interaction between and among students. While their numbers are relatively few and their structure is evolving rapidly, following is a list of exclusively online universities and organizations with the name of university currently available on the Web, for example, Athena University, California Coast, University American, Coastline University, Commonwealth Open University, Cyber State University, Greenleaf University, Kennedy Western University, International University, Open University, Southern California, University of Professional Studies, Virtual Online University. (Hanna, 1998, 81)

> "Technology Based Universities Keegan categorizes *distance education* universities as originating from two distinct traditions. The first of these traditions is correspondence study, and the second is the extension of traditional classrooms to new locations through the use of new technologies such as satellite, broadcast television, cable television, and more recently, compressed video and desktop video. More recently, a third category of institution has emerged that does not neatly fall into either of these traditions. Using asynchronous learning and taking advantage of new computer mediated conferencing systems and the emergence of the World Wide Web, *online universities* offer a third model organized around a technology approach. The *distance education/technology-based universities* are all organized around a technology-based approach to learning that seeks to minimize the physical separation of the learner from the instructor or from other learners. They also tend to be more adult and workforce oriented, although the large national universities enrol substantial numbers of traditional college-age students largely due to the incapability of traditional universities, especially in countries with rapidly growing populations" (Hanna, 1998, 77)

Learning and instruction will become increasingly interdisciplinary, due to the intermingling of the professional and personal sides of the learning process. Academic departments will be encouraged administratively and driven economically to reformat and reorganize trainings, programs, and structures to respond to increasingly market-orientated students. Technology support units that in traditional universities have been concerned only with improvements in on-campus. However, instruction will find that their work intersects with continuing education units whose role has been to extend access to the programs through the use of technology.

> "The recent developments of the World Wide Web, digital satellite technology, and new applications of virtual reality to build simulated learning environments, are predicted to have particu-

larly dramatic effects upon learning environments at all levels. Universities are experimenting with improving accessibility to existing programs, designing new programs to take advantage of these emerging technologies, and are marketing their programs to new audiences and in new ways. Corporations are also engaged in experimentation and have formed both new organizations internal to the corporation and brand new alliances with universities to promote learning using technology. Completely new models for universities are also being developed to respond to the opportunities created by a growing worldwide market for learning and new technologies. The result is a dynamic competitive environment among traditional universities that are adapting learning processes and administrative procedures, alternative non-traditional universities that are adapting technologies to better serve their existing primarily adult constituencies, and new universities that are being formed around the promise of virtual environments" (Hanna, 1998, 67)

Technologies are and will be used in creative ways to further erode the separation of students from each other, from their teachers, and from content relevant to the needs and interests of the student. As all of this occurs, the truly global nature of the educational marketplace will become increasingly clear, just as it has become apparent in this decade that the market for higher education is no longer singularly local. It will also become clearer that the impact of technology is not to create mass markets for learning, but to create options that are more and more customized for individual learners in organized patterns of inquiry.

The debate is between formal and informal learning experience, identity and avatar psychology, enhanced immediate synchronous e-learning interactions, experiential and social learning, virtual teamwork, formation of virtual communities, effective behaviour-changing learning experiences.

"Digital literacy involves more than the mere ability to use software or operate a digital device; it includes a large variety of complex cognitive, motor, sociological, and emotional skills, which users need in order to function effectively in digital environments. The tasks required in this context include, for example, "reading" instructions from graphical displays in user interfaces; using digital reproduction to create new, meaningful materials from existing ones; constructing knowledge from a nonlinear, hyper textual navigation; evaluating the quality and validity of information; and have a mature and realistic understanding of quoting that prevail in the cyberspace. This newly emerging concept of *digital literacy* may be used as a measure of the quality of learners' work in digital environments, and provide scholars and developers with a more effective means of communication in designing better user-oriented environments. It includes photo-visual literacy; reproduction literacy; branching literacy; information literacy; and socio-emotional literacy". (Yoram, 2004)

17.4 E-learning

Computer simulation can be viewed as a form of e-learning. This is a wide term covering opportunities that are proposed by the electronic age and deserves separate attention and mentioning. It can, of course, take place within the university or off,

when learning at home or at home via the Internet when taking an online course or within an online university study. The term includes both PC-based learning and web-based learning: 'E-learning is the use of electronic educational technology in teaching and learning'.

> "Bloom's taxonomy is a classification system used to define and distinguish different levels of human cognition—i.e., thinking, learning, and understanding. Educators have typically used Bloom's taxonomy to inform or guide the development of assessments (tests and other evaluations of student learning), curriculum (units, lessons, projects, and other learning activities), and instructional methods such as questioning strategies. Critics of the original taxonomy have questioned whether human cognition can be divided into distinct categories, particularly sequential or hierarchical categories. Others embrace the utility of the classification system, while still recognizing that it does not—and cannot—represent human thought or learning in all their complexity and sophistication. Most criticism is focused less on the system itself and more on the ways in which educators interpret and use the taxonomy. For example, trainers may view the system as linear prescription, believing that students must first begin with remembering, move on to understanding, and proceed through the levels to creating. Other educators may place too much emphasis on the importance higher-order thinking—at the expense of lower-order skills—despite the fact that acquiring a strong foundation of knowledge, information, and facts is essential in the application of higher-level thinking skills. Some educators have even proposed an alternative formulation, suggesting that the taxonomy should be reversed because higher-level thinking skills require that students both remember and understand underlying concepts first. Others suggest that the taxonomy should be interpreted as a non-hierarchical continuum in which no one form of cognition is more or less important".[4]

The figure above pictures the taxonomy linked to modern day means of communication, such as blogging, Skype communication, video conferencing, digital means used by online universities, and the online environment in general.

There are occasions when the media the trainer uses is determined simply by what is available in the training facility, and sometimes, therefore, this has to make do. Having said that, each of the media that are mentioned above, lend themselves to particular subject matter.

> "Information and communication technology (ICT) in education, Ed Tech, learning technology, multimedia learning, technology-enhanced learning (TEL), computer-based instruction (CBI), computer managed instruction, computer-based training (CBT), computer-assisted instruction or computer-aided instruction (CAI), internet-based training (IBT), flexible learning, web-based training (WBT), online education, online learning, virtual education, virtual learning environments (VLE; which are also called learning platforms), m-learning, and digital education".[5]

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4 http://edglossary.org/blooms-taxonomy/, accesed [20.05.2015]
5 https://en.wikipedia.org/wiki/Educational_technology, accessed [27.04.2015]

Bloom's Digital Taxonomy

Key Terms

HOTS
Higher Order Thinking Skills

Creating — Verbs → **Designing, constructing, planning, producing, inventing, devising, making,** programming, filming, animating, blogging video blogging, mixing, re-mixing, wiki-ing, publishing, videocasting, podcasting, directing, broadcasting

Evaluating — Verbs → **Checking, hypothesising, critiquing, Experimenting, judging, testing, Detecting, Monitoring,** blog commenting, reviewing, posting, moderating, collaborating, networking, refactoring, testing.

Analysing — Verbs → **Comparing, organising, deconstructing Attributing, outlining, finding, structuring, integrating,** mashing, linking, validating, reverse engineering, cracking, media clipping

Applying — Verbs → **Implementing, carrying out, using, executing,** running, loading, playing operating, hacking, uploading, sharing, editing

Understanding — Verbs → **Interpreting, Summarising, inferring, paraphrasing, classifying, comparing, explaining, exemplifying,** advanced searches, Boolean searches, blog journaling, twittering, catergorising, tagging, commenting, annotating subscribing.

Remembering — Verbs → **Recognising, Listing, Describing, Identifying, Retrieving, Naming, Locating, Finding,** bullet pointing, highlighting bookmarking, social networking, social bookmarking, favouriting/local bookmarking, searching, googling.

LOTS
Lower Order Thinking Skills

COMMUNICATION SPECTRUM

Collaborating

Moderating

Negotiating

Debating

Commenting

Net meeting
Skyping
video conferencing

Reviewing

Questioning

Replying

Posting & Blogging

Networking

Contributing

Chatting

e-mailing

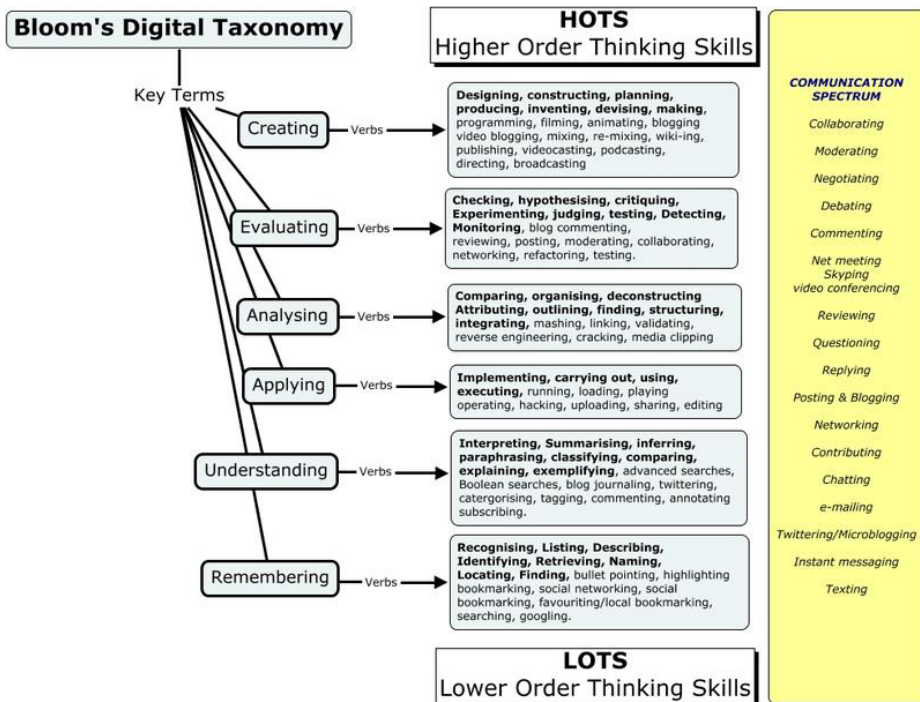Twittering/Microblogging

Instant messaging

Texting

Figure 17.3: Bloom's Digital Taxonomy.

Information technology has extended the range of training media, especially in the area of visual aids. These include PowerPoint and DVDs. Other visual aids include overhead projector (OHP), whiteboard, flip chart, videos and films. Written material, such as handouts, is also a form of medium. Finally, one's voice as a medium must not be overlooked, since it is a means by which one is conveying information:

> "While still widely used, Bloom's taxonomy is gradually being supplemented—and may perhaps even supplanted one day—by new insights into the workings of human thought and learning made possible by advances in brain imaging and cognitive science. Still, it is likely, given its logical simplicity and utility, that Bloom's taxonomy will continue to be widely used by trainers".[6]

Searching the web can also unearth other online training opportunities. This is a rapidly developing area when reading the current literature and networking will help to keep one up-to-date. Most commentators in this area agree that e-learning that also has a tutorial support, perhaps via e-mail, is more successful than other approaches.

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6 http://edglossary.org/blooms-taxonomy/, accesed [10.05.2015]

Web information that might be useful for a student, include access to World Wide Webuniversities' resources, mailing lists, forums, conferences and of course, online.

Meanwhile, Table 17.1. lists the most commonly used media and the purposes to which they are suitable.

Table 17.1: Commonly used visual training aids

Medium	Usage
PowerPoint	Everything is prepared on the computer. The package usually includes instructions for use. It is usually to run off copies of the PowerPoint frames to hand out to the trainees as *aides memoire*. Within the medium, the trainer can use colour and animation.
OHP	Suitable for presenting material in a clear fashion, explaining and discussing as the course develops.
Whiteboard and flip chart	Handy for summarizing findings, trainee's answers to the trainer's questions, and for laying out the main points of a talk.
DVD, video, and film	Films and video materials created specifically for training purposes in which actors adopt roles in case studies and problem solving situations.

17.5 Conclusions

We have looked at the steps of the training cycle and examined the management of training and development in the digital era. It is the changes in the environment in which a student develops that create the need for training.

> "In today's digital, technological and social environment, important transformations are underway in terms of how we live and work. We refer to contemporary times as the digital era or knowledge based society, characterised by the diffusion of information and communications technologies and the increasing demand for new educational approaches and pedagogies that foster lifelong learning. In the higher education arena, there are shifts in the views of what education is for, with a growing emphasis on the need to enable and support not only the acquisition of knowledge and information, but also to develop the skills and resources necessary to engage with social and technological change, and to continue learning throughout life. We are witnessing the rapid expansion and proliferation of technologies that are less about narrowcasting, and more focussed on creating communities in which people come together to collaborate, learn and build knowledge" (McLoughlin & Lee, 2007, 664).

Training needs can be identified within an academic institution, at the individual level. We have to consider not only what may require training, but whether that is both important for the future job holder and likely to be recognised or rewarded within the future organisation where the individual will be integrated. Training needs are established by examining the gap between the performance that is sought and the

performance that is currently being achieved. A wide variety of sources is available to help determine both the desired performance and the current performance. Competency frameworks can be particularly useful.

> "To illustrate the power of social software to support learner-centred pedagogies and to support courses in General Psychology, teachers at on-line universities, that use social software tools, should host weekly informal discussions with students following each week's lectures. During these discussions, students should be able to seek clarification on the course material and talk about it in greater depth, as well as to discuss issues not covered during the lecture. The discussions must be recorded and made available to other members of the class as a series of podcasts, or through Skype for example. In this way, the podcasts are about course content (meta-cognitive) rather than simply being recordings of the course content itself (transmission of content). All students in the cohort are welcome to submit questions in advance of the discussion via email; these answers, as well as those asked by students who attend in person, should be answered during the discussion".[7]

In formulating plans for training and development, it is important to examine the internal resources available, the external resources and the relevance of qualifications. We can select from a wide variety of techniques and opportunities, and should never restrict our concept of training and development to training courses alone. Individuals have preferences for the ways in which they learn, learning styles. The choice of training activities should take this into account.

Online universities provide the future in what digital learning is concerned. They offer a fast and cost-effective way of learning. To complete the learning cycle, we emphasised the value of evaluating training, considered some of the practical obstacles, suggesting examples that could help structure of evaluation. Without new and broader horizons and without taking advantage of new information and ways to improve training, development cannot take place. Therefore, training can be enhanced by technological means and is vital for progress.

> "Research in the past decade has shown that computer technology is an effective means for widening educational opportunities, but most teachers neither use technology as an instructional delivery system nor integrate technology into their curriculum. This qualitative study examined the classroom practice of 30 "tech-savvy" teachers who used computer technology in their instruction, how much they used it, the obstacles they had to overcome to succeed in its use, and their general issues and concerns regarding technology. Participants were volunteers from two elementary schools, one middle school, and one high school. All identified by their schools as being proficient with technology. The study found that the teachers were highly educated and skilled with technology, were innovative and adept at overcoming obstacles, but that they did not integrate technology on a consistent basis as both a teaching and learning tool. Two key issues were that their students did not have enough time at computers, and that teachers needed

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7 http://www.thefreelibrary.com/Towardtechnologyintegrationintheschoolswhyitisn'thappening, accessed [27.04.2015]

extra planning time for technology lessons. Other concerns were out-dated hardware, lack of appropriate software, technical difficulties, and student skill levels. Results suggest that schools have not yet achieved true technology integration. There are implications for teachers, administrators, and teacher educators".[8]

Technological change is relentless. Training needs created in computer skills, in advanced technical skills are widespread and substantial. The ability to develop and exploit software opportunities is critical for self-progress and such new software means the need for training. The Internet has far-reaching implications for the availability of information, for education. It is changing the way we work, communicate and learn. At the same time, technology and the Internet also provide new techniques for trainers to use in the process of training itself.

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+happening.-a0138483291 accessed [27.04.2015]

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