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Philippe Useille, Laurent Verclytte, Sylvie Leleu-Merviel

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Profiling the user – learning, for better or for worse ? A reflection on the existing training framework.

Philippe Useille

Laboratoire des Sciences de la
Communication
Université de Valenciennes et du
Hainaut-Cambrésis
Le Mont-Houy 59 313 Valenciennes
Cedex 9
FRANCE

Philippe.useille@univ-valenciennes.fr

Laurent Verclytte

Laboratoire des Sciences de la
Communication
Université de Valenciennes et du
Hainaut-Cambrésis
Le Mont-Houy 59 313 Valenciennes
Cedex 9
FRANCE

l.verclytte@free.fr
http://l.verclytte.free.fr

Sylvie Leleu-Merviel

Laboratoire des Sciences de la
Communication
Université de Valenciennes et du
Hainaut-Cambrésis
Le Mont-Houy 59 313 Valenciennes
Cedex 9
FRANCE

sylvie.merviel@univ-valenciennes.fr

Abstract – There is not a week, nor a day that goes by which does not see the arrival of a new e-learning platform, a new “virtual university”, or a new training scheme using a network-based automatic framework. A major issue common to all these phenomena is the way in which the learner is represented. In this context, the learner is seen as basically an autonomous actor, with the accompanying risks of dropping-out from the training, misusing online resources, getting lost in the myriad of choices available online. To avoid such pitfalls, it is necessary to propose a service adapted to the learner, in short, to “better know” who the learner is. This begs the question of how to characterize the learner-user ? How should one monitor learner-users ? How could one define the role of such a user in the learning/training process ? As a reply to such questions, technical solutions are put in place. But, on what principles are these type of solutions based ? Are they in tune with those of the declared learning objectives ? It is in light of this that we examine some solutions adopted by certain platforms and compare them to those adopted in off-line contexts, notably to the area of foreign language training. In doing so, we aim to underline some points to better empower online-learners and thereby increase the efficacy of e-learning systems.

I. INTRODUCTION

A. Context of the standardization.

The need for standardizing constitutive e-learning platforms has come to the forefront with the wish to have quality control organizations adopt quality standards through "fast-track" procedures. After the phase of forerunners, experience tends to show that economic and social models, which accompany the widespread development of technical solutions, are transformed into standardized and quality norms. This acknowledged wish to standardize and normalize is organized around three concepts:

- interoperability between systems
- reutilisability of training content
- management of data to establish the efficiency of the overall framework.

At first sight, the standards of distance learning are in tune with the dominant discourse about learning/training (pedagogics), which puts the learner at the centre of the pedagogic framework. The aim of the discourse is to “increase the effectiveness of learning by enabling greater personalization and targeting of the right content to the right person at the right time.”[1]. The approach finds its legitimacy both from a pedagogic and a marketing standpoint.

B. Reconciling a learner-centred approach to e-learning systems

The process of standardization involves transversal procedures that lead to the traceability of the learner-user’s choices (“paths”) from one training framework to another. An identifying number, which records certain data, can mainly do this. The aim, according to the explicitly formulated wish of the *Maisie Center*, is for “systems to be able to share data about learners access courses, their progress in the course and their pre-test and post-test scores” [1].

With this in mind, it appears important to analyze “technical” (declared “content-free”) solutions in terms of declared pedagogic intentions. In short, there is a need to evaluate tools in their pedagogic implications within the scope of empowering the learner in distance learning/training frameworks. This raises issues, like, to what extent did the setting up of the training system take into account the successes and the failures of its predecessors, such as correspondence learning and educational television ?

II. LEARNER CENTERED TRAINING

FRAMEWORKS: CONVERGENCE OF OBJECTIVES ?

Promoters of platforms of e-learning have unilaterally put learners at the centre of their framework. In so doing, they bring together the aims and the experience of specialists in different fields such as in marketing and pedagogics.

A. Mass production of custom made products

For clarity, it is necessary to understand training frameworks in their commercial context. In such a context, the learner is a “consumer” (the user) of a product, though not necessary the “customer” (the one who pays for the product). Therein lies a potential conflict of interest when the objectives of the consumer-user (*e.g.* a company worker) and the client (*e.g.* director of human resources) do not coincide. Thus, a company, wanting to make a profit from its investments, must identify/anticipate and satisfies the needs both of its consumers and its clients (when the two are not the same person). This involves producing and marketing products or services that users can clearly see their value [2].

On this level, the company’s action is based on the notion of needs. Traditionally, needs analysis is conducted before the production of a “good product”. An alternative approach in marketing proposes a more complex model. It stresses the advantages of the dynamic nature of the

demand and supply process. The relationship is interactive (in that supply can also modify demand) and in this way helping a company to establish a strong and durable link with customers (client loyalty). This has led to a new definition of marketing as suggested by Pierre-Louis Dubois and Serge Lafrance [4]. The main characteristic of this new concept sees marketing as an “overall process put in place by an organisation to understand and influence, according to its objectives, the conditions of exchange with other entities, individuals or organisations”.

This foray into the universe of marketing highlights some major elements. On the one hand, the identification of needs and its analysis is vital and conditions, though without guaranteeing, the efficiency of the product (or service). On the other hand, given that the supply and demand are interactively linked, the supply must be linked to the demand and modify it according to the company’s profit-making objectives. This is in direct conflict with the principle of “built-in redundancy” in mainline education where a pedagogic “scaffold” (*i.e.* service, product) seeks to satisfy users’ needs in ways that they can eventually function without it, in short, when learning happens. The concept of user-loyalty or dependency is thus anathema to many educationalists.

In the domain of sales, companies do not distinguish themselves anymore solely by the quality of their products but by image. It is also highly probable that the same will happen to the domain of e-learning. This “new” factor implies a particular adaptation to clients’ needs while maintaining the industrial constraints of the tools of production [5]. This leads to trying to mass-produce made to measure products/services. E-learning companies are then put in a situation to balance out different and irreducible elements, notably those of the individual characteristics of user-learners, and those of market and mass production. It is in the light of this paradox that one can understand the specificity of the solutions proposed.

B. Language learning pedagogics

The field of pedagogics has known its Copernican revolution in putting the learner at the center of its reflection and action. This learner-centeredness can be traced back to different studies of the learning process based on cognitivist, constructivist, and interactionist hypothesis developed in the domain of developmental and cognitivist psychology. They refer to the works of Piaget, Bruner and Vygotsky. They all share a common feature; ultimately it is learners that build for themselves their own knowledge and its appropriation. This means, that it is vital to take into account the particularity of each learner in terms of his or her needs, strategies and resources.

Such an approach means that the training framework creates pedagogic situations with the teacher as the mediator to facilitate learning activities. In this context, learners need to have the appropriate “cognitive reference points” to judge, evaluate and correct the outcomes of their actions. This is true in terms of expectations and also in interactions with partners (teachers, peers, institutions) that give a sense of meaning to learners, points of comparison and reasons to continue in their efforts to learn [6].

Two main principles of a pedagogic act need to be highlighted from studies in the domain. First, identifying learners’ needs and their analysis are vital in establishing the appropriate training content and the methodology. To do this, it is advisable to have means of communication

that allow users (learners, teachers, instructional designers) to understand each other, in all that the concept “understand” implies. Second, learners’ action, motivation, self-image, engagement are different modes of focusing of a learner-centered approach to learning.

This preoccupation with the user as shown by MAISIE [1] is based as much on pedagogic as commercial principles that appear to converge in an apparently non-conflictual way. In practical terms, however, what procedures are set in place to implement this approach ?

III. FOCUSING ON THE LEARNING PROCESS: MONITORING OR TRACEABILITY OF LEARNERS ? A. *Knowing the individual for mass production of custom-made services*

The efficiency of a training framework occurs by a certain (explicit or implicit) representation of the learner. Generally speaking, what works in face-to-face teaching, also works for distance learning. In these frameworks, the necessity of a representation results in putting in place various functions to monitor the learner. In practice, this involves identifying the learner and recording data linked to the expectations, objectives, learning styles, and the traces of pedagogic interventions *via* a personal “digital identifier”. (We discuss this latter below.) Indeed, being able to represent the user in a given framework is a major issue for the different actors concerned. Can this be done by profiling and quantitative methods ?

The everyday use of the word “profile” in e-learning refers to a tool to represent an individual’s characteristics, capacities and learning styles. This begs the following question: Does this concept of profile not pigeon hole the individual ? The question can be divided into two parts. First, the use of profiles compartmentalizes individuals at the cost of their complexity. In doing so, individuals are put into “boxes” in a way that all the individuals in the same box are considered as being similar. Second, given that the profile is necessarily limited, it could well be that it overlooks the essence of the learner, *i.e.* the ability to transform new input into appropriated knowledge. This could also lead to learners adopting a negative self-fulfilling prophecy, where they attempt to enact the pre-established roles designated by the profile rather than developing his/her personal abilities to appropriate knowledge. The insidiousness of this approach lies in the fact that profiling tools appear to describe objective categories in using a terminology that leaves its interpretation wide enough for anyone to recognize easily themselves. This open interpretation of descriptions leads to a false universality.

If one looks at the concept of profile differently, it is possible to envisage a metaphor that represents the features typifying the learner *via* an “envelope of knowledge” linked to the individual’s universe. Knowing a learner involves a process of dialogue. Psychoanalysts, for example, use mutual and interpersonal representations that allow the individual to recognize oneself in the expert’s description of the person. The parallel with psychoanalysis can be made in the use of profiles, along as one stays strictly to one’s own domain. This mutual representation of the individual helps build up a specific representation of the learner as an “expert” of himself.

In this way, the profile tool becomes a means: to express oneself, to know oneself, to facilitate the decision making process, to give others a summary of oneself, and to

publicly define oneself. These five dimensions are pivotal elements when addressing the uses that a tool can offer. When individuals publicly define themselves, they expect others to accept or reject the self-description. In any case, individuals attribute to an object, a representation of the person for, at the very least, some of the situations on which their lives are based. The object contains elements of the image that individuals wish to give of themselves. This knowledge reflects the individuals and the profile represents a "(mental) map" of the person's knowledge and behavior patterns. The efficiency of this "map" is limited by the use, if not by the design, based on co-creation and a common language. Profiling means to recognize and to use what others have left behind them.

Finally, the main issue associated to the uses of profiles in a pedagogic environment is that of categorizing individuals so that they match a predetermined model. For such individuals, the framework proposes various documents that may have been reorganized to suit the person's declared needs and wants. In doing this, can one still speak of a learner-centered approach ?

B. Digital personal identifier

The declared wish of the main actors of online training to "normalize" global e-learning is put into practice by adopting, as we have seen, three key concepts: interoperability between systems, reutilisability of training content, and management of data. They portray the aim for individualization and satisfaction of needs. If, on the face of it, the aim seems commendable, the hope is to give birth to a normalized labeling of human beings. The terms used are evocative. What are these terms ?

In this light, Jacques Perriault [7] raises several astonishing issues. First, the personal identifier claims to recognize and to communicate evaluation of cognitive skills, physical abilities, and cultural dependencies of the individual. Second, the personal identifier scheme allows a possible link up to bio-medical data of the individual. Finally, this scheme of normalization memorizes the digital paths taken by the individual, as well as the person's failures and attempts, length of training modules, etc. that can be communicated to other actors in the training framework.

The terminology provokes some major ethical questions. What is hidden behind the term "evaluation of cognitive skills", or "cultural dependencies" ? If the issue is that of attempting to improve the capacity of satisfying user needs, it is also necessary to analyze possible abuses of such a system. This is especially true when adopting a norm *via* a fast track procedure that prevents time for reflection and for experts to debate the issue.

Concerning, personal identifiers, two possible formulas exist: *Opt-In* and *Opt-Out* [7]. In point of fact, The European Parliament decided that all software for the general public must explicitly ask users whether they opt for the system to store certain type of data about them as well as their behavior with a given software. This is done either by *Opting-In* ("I agree"), or *Opting-out* ("I disagree"). The *Opt-Out* mode appears to offer a high level of security in taking the form of a horizontal band clearly warning users of the consequences of entering data into the pedagogic software or in any other computerized system.

Even if the system clearly announces the objectives and the potential uses of the data contained in the system as well as the interoperability between different systems, the

confidentiality issue remains as important as ever. Given, that one of the objectives of the life-long training of users is for potential employers to know individual's skills, what then is to be done about respecting the rights of the individual ?

C. Experiments and units of available e-paths: European Language Portfolio

How can one ensure the monitoring of learners ? More precisely, how can one ensure that learners have a variety of learning experiences through out their lives ? How can one ensure that learners capitalize and link all these experiences in a meaningful way ? One response to these questions is the *European Language Portfolio*, adopted by the Council of Europe in October 2000.

The *European Language Portfolio* is nothing less than a collection of personal documents used by language learners. The document enables individuals to manage their projects by noting down all that is connected to their linguistic and intercultural experiences. The *European Language Portfolio* consists of three parts:

- a linguistic biography of the learner aimed at encouraging the individual through the organization of learning paths, and the use of self-assessment charts of communication and language skills, based on the Council of Europe's *Common European Framework of Reference*.

- a file that gathers work illustrating the learner's performance level.

- a passport that constitutes an assessment of acquired skills, certifications and hands-on experiences in various foreign languages. It is aimed at 16 year-old learners and older, and it facilitates the drawing up of a linguistic profile (in terms of language level) and to quantify (in the length of time) lived experiences.

A major seminar (Turin, Italy, April 2002) reporting on the first experiments of the Portfolio showed that on the pedagogic level, "students could mobilize their knowledge of languages, acquire skills of self-evaluation, fix for themselves their own objectives and understand their learning strategies" [8]. On the emotional level, the seminar was told, "students developed a more acute awareness of themselves and to their relationship to the target language".

In summary, *European Language Portfolio* is a tool aimed at encouraging the mobility of Europeans by providing transparent and intelligibility to a learner's education and training history. The central point being that it is vital to associate the learner as much as possible in the process, notably in relying on self-evaluation processes based on carefully drawn up charts provided in the Portfolio. According to the authors, this approach induces a process of empowerment that leads learners to being autonomous. It is one of the keys to interoperability between training frameworks. For, the approach is based not only on "technical" solutions, in the case of the Portfolio, the *Common European Framework of Reference*, but also on the personal engagement of the learner upon which on learning takes its true meaning.

IV. FRAMEWORKS FOCUSED ON LEARNERS' CONTEXTS

A. From the user to the actor

The inspiration, which guided the design of the *European Language Portfolio*, can also nourish the

distance teaching frameworks in giving to learners the means of being an actor of their learning.

This position is not purely ideological. It is based on studies carried out in sociology of the uses that rejects on the one hand, technical determinism, according to which techniques induce a use, and on the other hand, social determinism that affirms a technique is not a neutral object but invested with unforeseeable implications. In fact, complex interactions link the technical and the social spheres [9]. Scientifically, the use of the term "neutral" does not have any real sense. In any case, the term lacks scientific rigor as it implies that the expert, the designer can control everything linked to the framework. This observation invites us to pay attention to the way in which users engage with engineered frameworks in order to use them according to their own strategies. To encourage empowerment of the user, training frameworks must reply to the way learners appropriate the technical tool. For, the pedagogic and the technical spheres must be satisfied by focusing on the learning process.

B. Tools for characterization

The tools based on statistics want to be a means of description of groups of individuals. Sociologists, in their majority, do not fail to recall that tools for analysis of social styles do not make it possible to classify individuals into hermetic boxes. In fact each individual finds himself in different proportions within different groups and not solely in one particular group.

The problem is that there is a gradual slip, more or less insidious, that imports methods related to the study of social groups for the classification of the individuals. Enclosing the individual in classes, boxes, and hermetic groups causes more problems than solutions. It thus possible to state that what is true on a macroscopic scale (the group) is not so on a microscopic scale (the individual).

Is it necessary to point out what is obvious ? There is not a one-way relationship between an observation and a cause. The training frameworks based on computerized tools are full of logic which, following an observation and/or a measurement leads to conclusions. But, what of the individual who has made a mistake, perhaps knowingly. Similarly, in measuring the average time between the clicks of mouse can lead to other information such as the average time and nothing else. And this is not 'information'. Indeed, the individual in question is perhaps taking notes when he is not clicking, or he perhaps is seeking extra information in a book, or he went out to drink a coffee or to pick up his neighbour! These are clues that need to be interpreted. To conclude that someone has committed a 'mistake', is to ignore the fact that the user can seek to convince himself of his good response by exploring alternative ways, while seeking to find the best answer among several "good" ones. The question of the direction of human actions is one of that haunts the social sciences and which one cannot answer lightly.

It is consequently necessary to think critically of frameworks and individuals who use them from a pedagogic point of view.

C. Focusing on the user

With the dis-incarnation of the user, the individual becomes isolated from their social context. Sociology undoubtedly contributed advancing the concept of

actorship. The developments of sociology of organizations stresses the margin of freedom of individuals who become an autonomous agent able to calculate and handle themselves and able to adapt and invent according to the circumstances and to the movements of its partners [10]. Consequently, its freedom and its rationality are limited and defined by a given context. To take into account the actor amounts to considering the context in which it is situated.

Concerning technical objects, the discourse of social appropriation excludes the consideration of users such as mass consumers and the sociology of uses as a statistical aggregation of individual behaviors [11]. This tends to prove the need to recognize the double dimension of user action become important: between the behavior and the intentional control in escaping simple causality. It is thus too limiting to lock up the action of learners in a simplistic causal link where such observable behavior returns in a univocal way to such significance. To base a personalized training framework on an automatic learner characterization of polysemic elements, seem to us an approach that neglects ethical and deontological issues.

V. CONCLUSION

There is a "writing" of a document that pertains to what is seen and heard to the learner. However, one has but to admit that the very concept of scenario takes second place in many training frameworks. The use of a scenario, for example, can give a central role to the author. What is made available, however, is seen as software, and not a "document" or a framework. The concept of an e-learning platform should instead involve proven design methods based on studies in pedagogics, audio-visual, etc.

One still needs to ask many basic questions before fully adopting an automatic training platform. For example, how is the context in using training resources defined ? What link is suggested between the learner and the context ? How does one go about learning on a screen ? What is to be done with the possibilities of mediation ? We can thus see that there are a lot of issues to tackle, with still many areas unknown and unexplored.

But beyond the questions posed by this article, there resides a fundamental one, which seems covered in silence. We see the learner defined as "virtual", as are the class or the university. Given this, we can ask ourselves about the reality of a society that builds itself on "virtual" educational frameworks.

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