

Integration of DICTs in Education: The Educational Demand Faced with the Profiles of Immigrants and Digital Natives

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Abstract— *Proposes here in this work that the implementation and use of TDIC”, necessarily, need to be absorbed by teachers and that for this to happen it is important to have an adequate understanding of their role as a mediator of knowledge and not a supplier; that there is a need for understanding that the saboteur positions that many teachers have is due to their paradigmatic positions and that it is important to understand this dysfunctional maladaptive condition through a cognitive restructuring so that their role as a mediator of knowledge is understood. That done, these digital immigrant teachers must be inserted in intensive training policy to know the tools of TDIC”s and be able to adapt their new role in the mediation between information and their native digital students. These, in turn, need to be “educated” about the use of digital information and communication technologies not only as an instrument of chatting or games, without a mediating application of knowledge.*

I. INTRODUCTION

Being prepared for the new is not always a reality for those who are its targets. The human structure is distressed when new challenges are imposed on it. Leaving that comfortable, pleasant and familiar place is frightening. It seems to be easier to work on something that is already ready than having to deal with a perspective of creating.

The world of Digital Information and Communication Technologies (TDICs) is challenging due to its dynamism, it has a life of its own. Just like your birth, your course of life is independent of whether or not you want to expand. It has become necessary for human existence throughout its course of globalization. It was born from the human intellect, but its cognitions were not prepared to give way to what its beliefs were established.

Human beings have been adapted to certain modes of operation. And when TDICs began to gain ground, society returned to internal chaos. Because, with the advent of the internet, people entered their private worlds of

navigation, using it as a technological resource in favor of maximizing their maladaptive affective relationships, their dysfunctional beliefs. However, Coutinho and Lisbôa assert that: “ The important thing in this society is not the technology itself, but the **possibilities of interaction** that they provide through a digital culture”. (COUTINHO & LISBÔA, 2011)BR

Thus, impasses arise in the establishment of a digital culture, demanding more time for its acceptance with all the possibilities it provides, considering that those who would be its applicators are still in an inadequate psychic process, sabotaging the teaching process learning and students seeing TDICs as something that detracts from their real educational potential.

II. DEVELOPMENT - LITERATURE REVIEW

2.1 THE PARADIGM OF CHANGE

Despite having been coined for a restricted means of scientific knowledge, the term paradigm shift is understood as a change in foundations and ways in which a given circumstance is perceived and Thomas Kuhn ponders that what should be guided by very specific rules ended up following a paradigmatic path, depending on the scientific field to which it is submitted, to the point that revolutionary changes in a field of traditional knowledge will not be extended by demand to another field (KUHN, 1962, pp. 74-75).

The resulting effects from one science to another can be perceived and their connections are notorious; this interdependence between the fields of knowledge has been positively discussed, given the adoption of measures that include the interdisciplinary and the multidisciplinary.

Thus understood, the idea of owning a certain tool that contemplates a more dynamic learning or its non-use by retrograde positions needs to be restructured in order to favor a better use of the scientific potentials that are available to be used for the educational context, like TDIs.

2.2 ADAPTIVE X DISADAPTIVE

The beliefs and internal schemes of each subject are created within a time when he was subjected to certain circumstances that made him develop internally strategies to deal with that situation in which he found himself at the time.

However, as time goes by, those behaviors that were previously acceptable for a certain situation have become inappropriate over the course of their history, especially if such strategies are used in all other events in their lives.

For (LOPES & MELO, 2014), among the many obstacles found for the implementation of Information and Communication Technology - ICT in the educational context is the "difficulty of dealing with something new, which requires changes in individual beliefs and practices". Sandra Teixeira (2011) demonstrates concern about the treatment given in relation to inadequate beliefs with existing resources, showing that such conduct can harm cognitive conditions as well as deprive students of specific knowledge needed:

This attitude points to two worrying factors in the school environment: the use of textbooks by teachers as the only source of information and the belief that there is more incorrect information than correct information on the internet. Such behaviors can harm the research practice, since they end up preventing the student from getting in touch with

several sources of information, in addition to harming the development of skills that would help the student to select relevant information to carry out a research (TEIXEIRA, 2011, pp. 65, 66).

Although maladaptive beliefs are usually related to affective interactions developed in stages of the initial formation of the human personality, they can very well be compared to those that are connected with the process of establishing a digital educational culture. These beliefs were born adaptively; served at a given moment to get rid of an anguish suffered, an absence, a lack. However, if this behavior continues to be fostered, it becomes inappropriate, like an adult putting his hands in his mouth, just as he did when he was a baby, to demonstrate that he is hungry.

The chalk and the old blackboard can demonstrate an emotional anchoring condition that provides security, control and an escape from the teacher's feeling of helplessness, in a process of change. And it is not just being inserted in a technological information environment that guarantees knowledge that meets the needs. There needs to be a deconstruction or cognitive restructuring of beliefs so that internal impediments do not intervene as saboteurs:

For this to happen, it is necessary that, given the information presented, people can re-elaborate their knowledge or even deconstruct it, aiming at a new construction. This construction should be based on cognitive parameters that involve self-regulation, motivational aspects, reflection and criticality in the face of a flow of information that is permanently updated. (TEIXEIRA, 2011, p. 8)

With a restructured cognitive apparatus, the teacher would be in adequate conditions to understand that the insertion of TDICs in the educational scope would not be a replacement channel, but a support and facilitator of the emerging educational demands of recent times. He would understand that his role within the teaching/learning structure would be one of mediation between student and knowledge and not responsible for its transmission.

2.3 THE DIGITAL IMMIGRANT IN THE CLASSROOM

That done, now comes another process that would be the insertion of this teacher in the context of learning these technologies, considering that a large part of them would be digital immigrants or their former students:

[...] there is an urgent need to continually train working teachers to use technological resources fully and efficiently. It is also urgent to reformulate a large part of the teacher training programs at universities, in order to include the training of digital teachers in their pedagogical proposals. (FRANCK, 2010)

The way in which digital immigrants absorb this knowledge of technologies, preserves, according (PRENSKY, 2001) to, the “accent” that is perceived in the way they use technological resources and shows that learning these resources is as if they were learning a new language, which has different functionality if was learned at an early age, crediting the fact that this language “goes to a different part of the brain”.

There are hundreds of examples of digital immigrant accents. These include printing your e-mail (or asking the secretary to print it for you – an even “more pronounced” accent); the need to print out a written document from the computer to edit it (instead of editing it on the screen; and personally bringing people to your office to see an interesting web site (instead of sending them the URL). I'm sure you can think of an example or two without much effort. My favorite example is “You got my email” over the phone. Those of us who are Digital Immigrants can, and should, laugh at ourselves and our “accent”. (PRENSKY, 2001, p. 2)

So, if this communication is compromised because teachers and students are using different languages, what resources could be used to minimize this cultural distance? It is seen that, once data and information are available and access to it has become more dynamic in relation to an expository class or a tiring lecture, the learning of the teacher who returns to the “school bench” would be like being a manager of conflicting emotions that arise in the face of the anguishes that involve the heap of information and data to which their students are submerged. In this regard, the technical knowledge of a technological tool would not be so important if psychic management and emotional regulation were not up to date, as well as pedagogical competence:

For this, it is not enough for the teacher to have technological skills, that is, to know how to navigate the Internet or to master skills in handling some *software*, but above all, to have pedagogical competence so that he can make a critical reading of the information that is disorganized and diffuse in the classroom. network. (COUTINHO & LISBÔA, 2011)

Thus, for (SANTOS & et al, 2011) “it is important that teachers think of new methodological models of teaching and learning that meet the demand of native speakers, since the traditional model becomes incompatible with their profile”.

2.4 PROFILE OF DIGITAL NATIVES

The so-called digital natives would perceive the DICT scenario in a somewhat different way. It is possible that they do not assimilate it as an instrument of educational interaction, but of entertainment, and in this way they learn:

Digital Natives are used to receiving information very quickly. They like to process more than one thing at a time and multitask. They prefer their graphics before text rather than the other way around. They prefer random access (like hypertext). They work best when connected to a network of contacts. They thrive on instant gratification and frequent rewards. They prefer gaming to “serious” work. (PRENSKY, 2001)BR

And here the shocks, the bumps, begin. On the one hand, there is teaching with a training profile, secondly (SANTOS & et al, 2011) oralist and face-to-face, where their interactions are physical and synchronous; at the other extreme, digital natives have a virtual identity, which identifies their ways of socializing to such an extent that many of them do not separate *online* from *offline*.

III. CONCLUSIONS

So, in view of all this dynamics involving DICTs, their implementation in the educational context, the distancing of professors in terms of knowledge of themselves, technologies and appropriate pedagogy and students, born in the midst of a whole whirlpool of information, which have the necessary skills to deal with all the technology around them, needing an intersection that makes this connection between them and the specific knowledge, which would be the use of this apparatus in education, it is clear that there needs to be a point of contact where teachers and students meet to resolve differences and propose a common term for all.

It is clear that:

Immigrants were born in another environment, not dominated by digital technologies, their way of learning was another. Thus, the coexistence between natives and immigrants can be conflicting. The training of immigrant teachers differs from the way their students, digital natives, perceive knowledge and the environment in which they live. (SANTOS & et al, 2011)BR

However, the responsibility of raising psychic and pedagogical resources that make this approximation weighs on the shoulders of the teacher. Their inner emotional hang-ups and their cognitive abilities need to be properly regulated so that they can deal with this great challenge of

learning about themselves, learning for themselves and learning to teach in a way that their students understand.

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