

New educational technologies as instruments that form the school culture

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ABSTRACT

The present work intends to discuss the introduction and application of new educational technologies at school as a possibility to outperform the "traditional" school practice in such a way to create a new school culture. In order to deal with the social and technological transformations, the school seeks alternatives towards the creation of a new educational praxis. The introduction of new technologies in the learning process demands that the education professionals reevaluate their teaching practice, taking into consideration the new modes of learning. On the other hand, the school has a stable structure. This organization is basically maintained by the irreplaceable presence of the teacher, the student, the material, the method, the curriculum, the time and the space. The introduction of digital technologies in the school setting is capable of rearranging the daily routine of the teaching practices, thus creating new school cultures. However, not only is the generation of a change in the teaching practices at school composed of the introduction of technological resources, but also of several other factors. It is necessary to understand how the different technologies were introduced and taken hold of, improving and modifying the teaching-learning processes, and consequently producing new ways of teaching and learning.

Key words: New technologies. School culture. Pedagogical practices.

INTRODUCTION

The increasing use of new information and communication technologies has promoted significant transformations in contemporary social relations. It should be noted that the easy access to information through multiple virtual networks allows a significant change in the process of acquisition and construction of knowledge.

The changes in modes of accessing and acquiring knowledge have reflected at school, which in its turn has dealt with the challenges posed by current society reordering the educational praxis and producing new school cultures. Hence, the insertion and the

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appropriation of the new information and communication technologies in the school teaching-learning process has been an emerging phenomenon, not to say necessary.

The school, which has operated the transition from an oral culture to a written one, aiding in the process of institutionalization of the latter in the society by means of the expansion of literacy as pointed by Vidal (2005) is now responsible for the organization and articulation of social thought in the light of the digital logic.

The present text of bibliographic nature problematizes the insertion and the use of new educational technologies in school as a possibility to overcome the "traditional" school practices. With this, it is considered that the use of new educational technologies in the classroom points to the production of a new school culture.

The study seeks to present a discussion of the new educational technologies and school culture terms in the light of authors such as Kenski (2007, 2012, 2013) and Mill (2010, 2013), who have focused on studies on the advance of new educational technologies in schools; and authors like Forquin (1997), Benito (2010), Viñao Frago (2002), who have offered significant contributions to the understanding of the ruptures and continuities of the schooling process and in the configuration of the school culture.

The new technologies and the school culture: a discussion of approximation

Before starting to think about the implication of modern movements in changing behavior and in the configuration of new discourses and social and educational practices, it is necessary to discuss some aspects about the incorporation of what the "new" is. It has to be noted that if on the one hand the "new" provokes a feeling of incapacity which terrifies by the lack of predictability and awakens the resistance, on the other hand it glimpses the development of potentialities which renew and transform the attitudes and social practices.

The dissemination of the new digital technologies has demonstrated that this tangle of sensations also emerges in everyday work of schools. For Kenski (2013, p. 62):

The appreciation of what is new, more powerful, or simply different, is already part of cultural and social conceptions present nowadays. We want something

that energizes our ability of interaction, communication, access and storage of information. At the present, we build our relations in the midst of the most varied technological artifacts. The contemporary culture is linked to the idea of interactivity, of interconnection and of inter-relation among people, and among them and the most diverse virtual spaces of production and availability of information. (KENSKI, 2013, p. 62)²

In this regard, the pedagogical process of contemporary school is also immersed in cyber cultural context that involves the entire society. This observation shows that by entering into the school the digital culture has allowed, however slowly, the change of the pedagogical practices.

Nonetheless, is it possible to assert that the new educational technologies have been configured as tools for the change in the modes of teaching and learning? It is uncontested that the teachers have been faced with such challenge. In addition to dealing with the new, in the attempt to overcome the difficulties regarding the interaction and handling of technological resources, the school subjects feel provoked to move forward on the methodological potentiality of technology. From there, it arises the creative ways of how the school subjects undertake and resize the teaching and learning process.

In the midst of the actions characterized by unsuccessful or successful attempts, by reluctant shocks, by tactics and strategies, new learning is triggered within the invariant school structure. Therefore, the changes experienced by schools due to the insertion of the new educational technologies do not alter the school structure.

It is understood that the school has a structure, not only physical or administrative, but a pedagogic one which is invariant. This provision is regulated by norms, discourses, rituals, practices that intertwine the subjects by means of daily tasks. As a result, a specific model of the human being's socialization is produced. The school

² In Portuguese: "A valorização do que é novo, mais potente ou, simplesmente, diferente, já faz parte das concepções culturais e sociais presentes na atualidade. Queremos algo que potencialize nossa capacidade de interação, comunicação, acesso e armazenamento das informações. Na atualidade construímos nossas relações em meio aos mais variados artefatos tecnológicos. A cultura contemporânea está ligada à ideia da interatividade, da interconexão e da inter-relação entre as pessoas, e entre essas e os mais diversos espaços virtuais de produção e disponibilização das informações. (KENSKI, 2013, p. 62)"

has a structure basically sustained by the irreplaceable presence of the teacher, the student, the material, the method, the curriculum, the time and the institutional space.

In this regard, by resorting once more to Kenski's reflections (2007, p. 45), it is agreed that:

No matter how much schools use computers and the internet in the classes, they continue being serialized, finite in time, defined in the restricted space of the classroom, linked to a single discipline and graduated in hierarchical and linear levels of knowledge enhancement in specific areas. (KENSKI, 2007, p. 45)³

On the other hand, the school is not only a place for the knowledge transmission, but a place of production of culture, or cultures in plural. As Viñao Frago (2006) points, the institutions and school systems undergo changes that are characterized from different types of relations, external or internal.

Thus, in addition to collaborating with the transmission of culture as a call of the societies, the school produces culture. "Culture is the field in which different and conflicting conceptions of social life are faced, it is something by which we fight and not what we receive."⁴ (MOREIRA; TADEU, 2011, p. 35). The school is a space in which the power relations, the conflicts, the tensions, the interactions, the learning, the exchanges, the production and the inculcating of values become evident. It is a place where sociocultural relationships experienced by its subjects legitimize the production of a school culture.

To explain this phenomenon, several theorists have examined the polysemous term school culture⁵. Forquin (1993, p. 167) defines it as a set of knowledge determined by social, political and ideological factors. The author says that "the school is also a

³ In Portuguese: "Por mais que as escolas usem computadores e internet em suas aulas, estas continuam sendo seriadas, finitas no tempo, definidas no espaço restrito das salas de aula, ligadas a uma única disciplina e graduadas em níveis hierárquicos e lineares de aprofundamento dos conhecimentos em áreas específicas do saber. (KENSKI, 2007, p. 45)"

⁴ In Portuguese: "Cultura é o terreno em que se enfrentam diferentes e conflitantes concepções de vida social, é aquilo pelo qual se luta e não aquilo que recebemos" (MOREIRA; TADEU, 2011, p. 35).

⁵ In recent years, authors have been dedicated themselves to the literature review in the field of academic productions and the conceptualization of the school culture term. On this subject, see the following articles: KNOBLAUCH, Adriane; RATTO, Ana Lúcia Silva; OLIVEIRA, Luciane Paiva Alves de; FERREIRA, Valéria Milena Rohrich. Levantamento de pesquisas sobre cultura escolar no Brasil. *Educação e Pesquisa*, São Paulo, v. 38, n. 03, p. 557-574, jul./set. 2012. POL, Milan; HLOUŠKOVÁ, Lenka; NOVOTNÝ, Petr; ZOUNEK, Jiří. Em busca do conceito de cultura escolar: uma contribuição para as discussões actuais. *Revista Lusófona de Educação*, Lisboa, n. 10, p. 63-79, 2007.

'social world' with characteristics of its own life, its rhythms and rites, its language, its imagery, its own ways of regulating and of transgression, its own system of production and management of symbols".⁶

Reflecting in the perspective of the author, it is licit to consider that speeches, transgressions, creative and flexible practices, different and unpredictable ways to teach and learn are developed in the school space which extrapolate the legal devices and configure themselves as elements of an institutional culture.

The words by Antonio Cândido (1973, p. 107) allow to reflect on these peculiarities of the school process. For this author:

[...] beside the relations officially envisaged (which the legislator takes into account to establish the administrative standards), there are others beyond forecast, because they are born of their own dynamics of the school social group. In this way, if there is an administrative organization equal to all the schools of a certain type, it can be said that each one is different from the other, by presenting characteristics due to their own sociability. (CÂNDIDO, 1973, p. 107)⁷

In this way, it is understood that the society has significant influence in the school daily life. At the same time, the school is designed as a producer of its own culture translated into educational practices.

According to Benito (2010, p. 12),

The school was and is a place of culture production and this culture is the objective in the practices in which the formative processes are operated. The actions are materialized in the spaces, objects, icons and texts that form part of the historical-educational heritage. (BENITO, 2010, p. 12)⁸

⁶ In Portuguese: "a escola é também um 'mundo social', que tem suas características de vida própria, seus ritmos e ritos, sua linguagem, seu imaginário, seus modos próprios de regulação e de transgressão, seu regime próprio de produção e de gestão de símbolos".

⁷ In Portuguese: "[...] ao lado das relações oficialmente previstas (que o legislador toma em consideração para estabelecer as normas administrativas), há outras que escapam à sua previsão, pois nascem da própria dinâmica do grupo social escolar. Deste modo, se há uma organização administrativa igual para todas as escolas de determinado tipo, pode se dizer que cada uma delas é diferente da outra, por apresentar características devidas à sua sociabilidade própria". (CÂNDIDO, 1973, p. 107)

⁸ In Spanish: "La escuela há sido y es um lugar de producción de cultura y esta cultura se objetiva em las prácticas em que se operativizan los processos formativos. Las acciones se materializan em los espacios, objetos, iconos y textos que forman parte del patrimonio histórico-educativo". (BENITO, 2010, p. 12)

Thus, throughout its existence, the school has gone through numerous reforms. However, few were able to replace the existing pedagogical structure. Otherwise, in the rush to ensure the efficiency of the teaching-learning process, the reforms could provoke interference on pedagogical practices by resizing the daily routine and producing new school cultures.

Currently, the school has submitted itself to the innovative proposals of new educational technologies, which in their turn have improved the quest to make the teaching more appealing and interactive. According to Martins (2012, p. 68), “new cultural references arise which require the necessity to dominate the different codes for the readings and interactions with the reality”.⁹

By enabling the school to reach out the digital advances suffered and undertaken by the societies, mainly in regard to the access and use of multiple technological resources, the school tends to produce practices that are suited to this reality.

However, the production of a shift in pedagogical practices of the school is not guaranteed only by the introduction of technological resources in the school environment and the technical use of certain tools. It is necessary to understand how the different technologies were formally introduced and suffered appropriations in the school context, in order to enhance the teaching-learning processes by producing new forms of teaching and learning.

The slight change of the "traditional" pedagogical practices through the incorporation of new educational technologies in school can be observed in the words of Mill (2013, p. 13):

The cyberspace culture and the technological discourse led the concept of education to a level of intensive use of devices and artifacts, in addition to changes in pedagogical processes. In the euphoria by the search of magic formulas to "save" the student and the teaching-learning process, various movements are perceived among educators, educational administrators and governments. Perhaps by the precipitation of actions. Some educational proposals did not meet the expectations (some by excess and other by shortage of digital technologies) of the current function of education properly.¹⁰

⁹ In Portuguese: “surgem novas referências culturais que exigem a necessidade do domínio de códigos diferentes para as leituras e interações com a realidade”.

New educational technologies as instruments that form the school culture

Based on the author's contribution, it is considered that the "euphoria" by supplying the school with technological instruments aiming at the improvement of the teaching-learning process quality triggered an increase of discourses and policies which focus on providing the schools with the most modern digital equipment. But, it is observed that many initiatives have failed, because they were proposed without the theoretical, technical and pedagogical support.

In many schools the insertion of new educational technologies has not been accompanied by appropriate training courses, or even by the use and maintenance support of technological resources, which are indispensable in the process of pedagogical mediation.

Towards this direction, we can infer that the school, more specifically the school community, has taken possession of new educational technologies as a complementary tool to the traditional pedagogical practices. In many schools, the potentiality of technological digital resources is not exploited in its totality, or do not configure themselves as a pedagogical innovation widely used successfully in the teaching-learning process.

In this way, it is plausible to affirm that the current challenges require the school subjects new ways of dealing with the teaching and learning process in school, either positively or negatively. The unleash of these new ways of teaching and learning driven by countless transformations of the information society will permit the constitution and the consolidation of a new school culture at various levels of the Brazilian educational system.

Thus, it is necessary to understand the limits and potentialities of the new educational technologies to consolidate the social function of the school. Among the capabilities that technological progress provides to school subjects, Mota (1996, p. 74) points out:

¹⁰ In Portuguese: "A cultura ciberespacial e o discurso tecnológico levaram a noção de educação a um patamar de uso intensivo de dispositivos e artefatos, além de mudanças nos processos pedagógicos. Na euforia pela busca de fórmulas mágicas para "salvar" o aluno e o processo de ensino-aprendizagem, diversos movimentos são percebidos entre educadores, gestores educacionais e governos. Talvez pela precipitação das ações. Algumas propostas educacionais não atenderam adequadamente (algumas por excesso e outras por escassez de tecnologias digitais) à atual função da educação".

The importance that the television, the video, the computer and their various combinations have for education is that they promote a new configuration of knowledge which implies in: ability/knowledge to access to information; select the information; ability/knowledge to use/recycle information. (MOTA, 1996, p. 74) ¹¹

It is worth noting that the insertion of new technologies does not repeal the social function of the school in transmitting the knowledge accumulated by society, but it permits to transform the ways of how knowledge can and must be taught and seized. In other words, it redefines the learning processes. In the same way, the new technologies of education alter the dynamic school with regard to space and time to learn. For Scheer (1999), the new technologies play a crucial role in the education of young people or adult workers, who do not have full-time to attend classes in a regular school.

It must be remembered that the school as a single institution tends to adapt itself to the progress of society without changing its original structure. In this respect, the new information and communication technologies re-contextualized to school education contribute to the quality of the schooling processes in the perspective of the transformation of the educational praxis in so far as they constitute in teaching instruments.

It is highlighted that the various subjects that act in the school space need to incorporate into their daily practices the standards, the speeches, the procedures which belong to the school, but also the various elements that constitute the culture of society. For this reason, it is a fundamental issue to think the existing relations in the school and their dialog with the educational technologies in a perspective that goes beyond the simple technical implementation of technology.

The appropriation of the digital culture by the school mobilized many professionals and researchers of education to reflect on the educational praxis in the cyber culture. The word “cyber culture” is here understood as a set of elements associated with the forms of communication mediated by virtual spaces, i.e. by

¹¹ In Portuguese: “A importância que a televisão, o vídeo, a informática e suas diversas combinações têm para a educação é que elas promovem uma nova configuração do saber o que implica em: poder/saber acessar a informação; selecionar a informação; poder/saber usar/reciclar a informação.” (MOTA, 1996, p. 74)

cyberspaces. According to Lévy (1999, p. 94), the cyber culture develops along the growth of cyberspaces that constitute as:

[...] the space of communication opened by world interconnection of computers and their memories. This definition includes the set of electronic communication systems (in which are included sets of classic radio and telephone networks), inasmuch as they transmit information from digital sources or designed for scanning. (LÉVY, 1999, p. 94)¹²

As the connections occurred in cyberspaces emerge, the cyber culture establishes new communication practices, and it resizes the ways by which the cognizant subjects appropriate the knowledge produced by society. As a contemporary phenomenon, the cyber culture is the culture derived from the mediation and the appropriation of digital technologies that engender not only new communicational dialectics, but also cultural and educational ones.

The cyber culture comes upon the cyberspaces, but it does not remain in them, it is diluted in the everyday doing and thinking. Thus, among the demands that the cyber cultural society imposes on schooling, there is the one which concerns the main function of the school that is the transfer of historically and accumulated knowledge.

It cannot be denied that the school must permit the interaction of individuals with the new technologies. This interactive form of accessing knowledge allows students to assume the role of subject. In this way, the challenges arising from the relation between the school subjects and the new technologies of information and communication have evidenced an educational stance that extrapolates the conception about the exclusive use of digital tools as teaching resources.

It constitutes a major contemporary challenge to the educational area to think of the school practices in the light of the diversity of cultural, technological and economic aspects that have changed the configuration of the current society.

¹² In Portuguese: “[...] o espaço da comunicação aberto pela interconexão mundial dos computadores e das memórias dos computadores. Essa definição inclui o conjunto dos sistemas de comunicação eletrônicos (aí incluídos os conjuntos de redes hertzianas e telefônicas clássicas), na medida em que transmitem informações provenientes de fontes digitais ou destinadas a digitalização.” (LÉVY, 1999, p. 94)

Final Considerations

By way of final considerations, we recall the contributions from Kenski (2013, p. 68):

The technological culture requires a radical change in behavior and pedagogical practice that are not covered only with the incorporation of media education. On the contrary, there is a great chasm between the education mediated by ICTs - practiced in many of the schools, universities and colleges - and the dynamic processes that may happen in relations between online teachers and students. (KENSKI, 2013, p . 68) ¹³

It is evident that the social changes defy the school institutions to change the behavior and pedagogical practices, although there is still a yawning chasm between the technological advances and the pedagogical practice of schools.

Therefore, it is unquestionable that, as privileged institution of socialization and transmission of culture, the school cannot remain on the margins of social changes, even if it has slowly experienced such transformations.

By perceiving how the different technologies were formally entered and suffered appropriations in the school context, the constitution of a new school culture can be envisioned.

To take a look on the school's everyday routines is to contemplate the different cultural elements of school socialization which in the current context have its teaching-learning processes enhanced by the new digital media that produces new forms of teaching once the modes of learning are new.

There are many possibilities to understand the school culture by current bias of new technologies. It is upon us to identify the insertion policies of educational technologies of the education system; to recognize the methodological proposals of new educational technologies as innovative teaching strategies; to question about the processes of initial and continuing teacher education for the use of technology in school;

¹³ In Portuguese: “A cultura tecnológica exige a mudança radical de comportamentos e prática pedagógica que não são contemplados apenas com a incorporação das mídias ao ensino. Pelo contrário, há um grande abismo entre o ensino mediado pelas TICs – praticado em muitas das escolas, universidades e faculdades – e os processos dinâmicos que podem acontecer nas relações entre os professores e alunos on-line.”

to understand how teachers and students use the educational technologies, their potentials and difficulties.

REFERENCES

BENITO, Agustín Escolano. La cultura material de la escuela y la educación patrimonial. **Revista Educatio Siglo XXI**, Murcia, v. 28, n. 2, jul./dez. 2010. p. 43-64.

CANDIDO, Antônio. A estrutura da escola. In: PEREIRA, Luiz; FORACCHI, Marialice. **Educação e sociedade**. São Paulo: Companhia Editora Nacional, 1973. p. 107-127.

FORQUIN, Jean-Claude. **Escola e cultura**: as bases sociais e epistemológicas do conhecimento escolar. Tradução: Guacira Lopes Louro. Porto Alegre/RS: Artes Médicas, 1993.

KENSKI, Vani Moreira. **Educação e tecnologias**: o novo ritmo da informação. Campinas: Papyrus, 2007.

_____. **Tecnologias e ensino presencial e a distância**. Campinas: Papyrus, 2012.

_____. **Tecnologias e tempo docente**. Campinas: Papyrus, 2013.

MARTINS, Onilza Borges. Os desafios dos sistemas de gestão em EAD. In: PRETI, Oreste. **Educação a distância**: sobre discursos e práticas. Brasília: Liber Livro, 2012.

MILL, Daniel. **Docência virtual**: uma visão crítica. São Paulo: Campinas, 2012.

_____. **Escritos sobre educação**: desafios e possibilidades para ensinar e aprender com as tecnologias emergentes. São Paulo: Paulus, 2013.

MOTA, Regina. Tecnologia e informação. In: DAYRELL, Juarez T. **Educação e cultura**: múltiplos olhares. Belo Horizonte: UFMG, 1996. p. 73-77.

SCHEER, Sérgio. Multimeios em EaD. In: MARTINS, Onilza Borges. **Educação a distância**: um debate multidisciplinar. Curitiba: UFPR, 1999. p. 159 - 175.

VIDAL, Diana Gonçalves. **Culturas escolares**. Estudo sobre práticas de leitura e escrita na escola pública primária (Brasil e França, final do século XIX). Campinas, Autores Associados, 2005.

VIÑAO FRAGO, Antônio. **Sistemas educativos, culturas escolares y reformas: continuidades y cambios**. Madri: Morata, 2006. p. 102-105.