

**REFLECTING ON A PHILOSOPHICAL MATRIX THAT CAN EMBRACE THE
EPISTEMOLOGY OF ACTIVE METHODOLOGIES BEFORE DIGITAL
HUMANISM**

***REFLETINDO SOBRE UMA MATRIZ FILOSÓFICA CAPAZ DE ABRACAR A
EPISTEMOLOGIA DAS METODOLOGIAS ATIVAS DIANTE DO HUMANISMO
DIGITAL***

***REFLEXIONANDO SOBRE UNA MATRIZ FILOSÓFICA QUE ES CAPAZ DE
ABRAZAR LA EPISTEMOLOGÍA DE LAS METODOLOGÍAS ACTIVAS FRENTE AL
HUMANISMO DIGITAL***

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ABSTRACT: The present study reflects on the theoretical and practical foundations that make up educational practices in the context of cyberculture in the face of the cognitive possibilities presented by cyberspace experienced in daily university education. Among the questions researched are how to epistemologically resignify the educational practices in relation to learning processes, enabling the questioning about: how to project the teacher pedagogical action in front of the cognitive possibilities of cyberspace? What is the teaching role in relation to the student immersed in the daily experience of cyberculture? Faced with the emerging contemporary scenario of liquid transformations, we sought to deepen the meaning of cyberculture in the perspective and its relationship with teaching practice. Later, we studied pedagogical practices that emphasize the communicative potential of cyberspace in cognitive construction. The research reflects on university learning experiences and the sense of a pedagogical internationality focused on the connections between cyberculture and cyberspace. As for the theoretical framework of the expressions "Cyberculture" and "Cyberspace", both are constituted and revisited in the works of Pierre Lévy. The study is bibliographic and of a qualitative, dialectic character and is linked to the Doctoral research in the PPGEDU of the URI - Frederico Westphalen, in the Line: Educational Processes, Languages and Technologies.

KEYWORDS: Cyberculture. Cyberspace. Pedagogical intentionality. Learning.

RESUMO: *O presente estudo reflete sobre os fundamentos teórico-práticos que compõem as práticas educacionais no contexto de cibercultura diante as possibilidades cognitivas apresentadas pelo ciberespaço vivenciado no cotidiano educacional universitário. Dentre as questões pesquisadas estão o modo de resignificar epistemologicamente as práticas*

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educacionais em relação aos processos de aprendizagem, possibilitando o interrogar sobre: como projetar o agir pedagógico docente diante das possibilidades cognitivas do ciberespaço? Qual o papel docente em relação ao discente imerso na vivência cotidiana de cibercultura? Diante do emergente cenário contemporâneo de transformações líquidas, buscou-se aprofundar o sentido da cibercultura na perspectiva e sua relação com a prática docente. Posteriormente, estudar as práticas pedagógicas que enfatizam o potencial comunicativo do ciberespaço na construção cognitiva. A pesquisa reflete sobre as vivências de aprendizado universitárias e o sentido de uma internacionalidade pedagógica focada nas conexões entre cibercultura e ciberespaço. Quanto ao marco teórico das expressões “Cibercultura” e “Ciberespaço”, ambas são constituídas e revisitadas nas obras de Pierre Lévy. O estudo é bibliográfico e de caráter qualitativo, dialético e está vinculada a pesquisa de Doutorado no PPGEDU da URI- Campus Frederico Westphalen, na Linha: Processos Educativos, Linguagens e Tecnologias.

PALAVRAS-CHAVE: Cibercultura. Ciberespaço. Intencionalidade pedagógica. Aprendizagem.

RESUMEN: *El presente estudio reflexiona sobre los fundamentos teórico-prácticos que componen las prácticas educativas en el contexto de la cibercultura ante las posibilidades cognitivas que presenta el ciberespacio vivido en la rutina educativa universitaria. Entre las preguntas investigadas se encuentra la forma de replantear epistemológicamente las prácticas educativas en relación con los procesos de aprendizaje, possibilitando el cuestionamiento: ¿cómo proyectar la acción pedagógica docente frente a las posibilidades cognitivas del ciberespacio? ¿Cuál es el rol docente en relación con el alumno inmerso en la experiencia diaria de la cibercultura? Ante el escenario contemporáneo emergente, de transformaciones líquidas, se buscó profundizar el significado de la cibercultura en perspectiva y su relación con la práctica docente. Posteriormente, estudiar las prácticas pedagógicas que enfatizan el potencial comunicativo del ciberespacio en la construcción cognitiva. La investigación reflexiona sobre las experiencias de aprendizaje universitario y el sentido de una internacionalidad pedagógica centrada en las conexiones entre la cibercultura y el ciberespacio. En cuanto al marco teórico de las expresiones "Cibercultura" y "Ciberespacio", ambas están constituidas y revisadas en la obra de Pierre Lévy. El estudio es bibliográfico y de carácter cualitativo, dialéctico y está vinculado a la investigación de doctorado en PPGEDU de URI-Câmpus Frederico Westphalen, en la Línea: Procesos Educativos, Lenguajes y Tecnologías.*

PALABRAS CLAVE: Cibercultura. Ciberespacio. Intencionalidad pedagógica. Aprendizaje.

Introduction

This study presents a reflexive analysis that seeks to highlight an epistemological framework of contemporary pedagogical experiences in relation to the extensive use of digital technology in the university space. As a dialogical approach, it seeks to understand the cognitive pedagogical potentialities of new learning spaces in the context of cyberculture and cyberspace contextualized from Pierre Lévy.

Starting from the prerogative of reflecting on the cognitive possibilities of cyberspace and intentionally pedagogical, the study theoretically surrounds the reframing of knowledge construction processes, the relationships between teaching and cyberculture and the transformations arising from cyberspace in pedagogical practices.

Flickinger (2010, p. 30), states that: "within the perspective of post-Cartesian epistemology, there is no way to escape, therefore, the risk of instrumentalization of man himself". In this context, the critical study of new and different spaces for the construction of knowledge needs to be projected before the socio-educational perspective. In this sense, the instrumentalization and rationalization of historically constituted pedagogical practice are rethought and project the epistemological view of the skills and competences in the "world in networks" experienced by education in recent times. Perhaps, rethinking the sense of learning itself, as a dialectical and under construction act. As Demo (2014, p. 157, our translation) states "on our part to leave no doubt, we prefer the unequivocal expression 'learn to learn'".

Also, in the development of this study, it is important to analyze the confluences between the meaning of the university educational experience of cyberculture in view of the perspective or not of a digital pedagogical intentionality in teaching practice. In other words, the contemplation of digital technology in cyberspace that needs to be designed for the organization and planning of pedagogical practices in which the result of educational action contemplates in its educational experiences the context of cyberculture already experienced daily in other instances by teachers and students.

The outlines of this study have a bibliographic, qualitative and dialectical character. The latter is also conceived as an alternative to redefine the meaning of educating in the face of a world of possibilities for information in networks. In this sense, the dialectical view as an attempt to enable the understanding of new epistemological horizons for teaching in times of cyberculture.

Despite the modern rationalist composition still configuring a pre-established educational practice and rooted in traditional conceptions of thinking about educational practice, the new scenarios of educating emerge as a lively and alternative debate in the face of new spaces and times of learning. Flickinger (2010, p. 98, our translation) contributes to the rethinking of dialectics when he states that: "If reason denies its dialectical origin, it will be, after all, denying its own claim to be reason". In this context, the author invite us to rethink ethics in pedagogical practice, which is not an object of study here, but a starting point for the meaning of educating.

Evidencing this “living education” in the context of cyberculture, the central issue is not strictly the technique and the extensive use of digital technologies in a Manichaeian conception. The relationships in cyberspace that are being established socially between the actors of the pedagogical processes tensioned by the daily media relationship of new means of construction and absorption of information from the digital world are part of the new contemporary educational sense. In this reflective agenda, the term "pedagogical intentionality" becomes didactically deepened for the projections of planning to act pedagogically.

Also, in view of the emerging scenario of contemporary social transformations, as stated by Flickinger (2010, p. 181, our translation), it is reiterated: “[...] the need to frequently transgress the traditional limits of the disciplines [...] Instead of objective knowledge and traditional skills, reflexive competence is required, that is, the willingness to question the certainties previously built [...]”.

With regard to new times and educational spaces, the necessary investigation is presented on the meaning of the so-called “collective intelligence” from the experience of cyberculture. This approach makes it possible to study and identify the elements that are present in the educational routine, such as “cyberspace”, in which students at different levels of learning live different experiences.

Understanding this new composition, a contemporary “symphony” of different spaces for the construction and exchange of knowledge, it is important to highlight the cognitive potential of this cyberspace. Pierre Lévy (1999) reflects on the relationship of technological use based on the so-called “Collective Intelligence”, in which cyberculture is at the same time a poison for those who do not participate in it and a remedy for those who manage to control it.

Through this initial categorization and the new digital context presented, we seek, in sequence, to deepen reflections on pedagogical practices that emphasize the communicative potential of cyberspace in the construction of learning, establishing the analysis on different spaces of learning, especially the pedagogical internationality of the teaching in the sphere of educational connections between cyberculture and cyberspace.

Digital technologies and education: changing contexts

When experiencing technologies and their influence in society, in the ways of learning in the educational environment, the teacher needs to be prepared to use technological devices

and qualify his classes. Cerutti and Giraffa (2014) emphasize, teaching in times of cyberculture requires reflection on how to understand the student and how to be a teacher amid changes, relating them to the provision of information in different non-traditional spaces.

In view of the modifications present in the contemporary educational scenario, at its different levels, the relationship between technologies and the educational environment experienced by the school community, in particular, the teachers in this environment has been striking. This factor leads to reflections around the sense of cyberculture and its relations with teaching. “Getting informed, researching, discovering, communicating, sharing ideas and building knowledge in the digital age is very different from carrying out all these actions half a century ago” (BACICH; MORAN, 2018, p. 104, our translation).

In the unfolding of this contemporary teaching practice, the term cyberculture configures thinking about pedagogical action due to the need to understand and comprehend education not in a fragmented way, but in context to the different spaces it occupies in contemporary society. Moran, Masetto and Behrens (2013, p. 8, our translation) present what they call crucial and critical points that involve education and technologies. It reads: “[...] The issue of quality education, the construction of knowledge in the information society, the new conceptions of the collaborative learning process, the review and updating of the teacher's role and functions [...]”.

Linked to the social educational context, cyberculture then provokes us when thinking about human relationships that are “inter” and “intra” related in the educational constitution. In this sense, the humanist work of the teacher and his relationship with the student, in the cyberculture scenario are cognitively thought of in the different presentations of the cognitive cyberspace made possible by the technological environment. Still on this issue Moran, Masetto and Behrens (2013, p. 12, our translation) affirm: “education is a process of the whole society - not just the school - which affects all people, all the time, in any personal, social and professional situation, and in all possible ways”.

Observing this contextualization of learning, occur the rescue of the expression cyberculture, which for Lévy (1999, p. 18, our translation) “[...] specifies the set of techniques (material and immaterial), practices, attitudes, ways of thought and values that develop together with the growth of cyberspace”. In the constitution and attempt to project the teaching identity, the term cyberculture appears as elementary when thought of by the dynamics of school and extra-school relations that emerge in pedagogical practice.

Would it then be possible to think about the pedagogical intentionality of planning and experiencing classes from this context of cyberculture, in which, the pedagogical relationships of learning can be experienced in different interfaces of cyberspace? Perhaps it is imprudent to disengage from this social dynamic in educational action, in which the sense of teaching is experienced.

Digital technologies facilitate research, communication and network dissemination. We have the most organized technologies, such as virtual learning environments - like Moodle and the likes of it - that allow us to have control over who accesses the environment and what needs to be done at each stage of each course [...] the mix of more formal environments with more informal ones, made in an integrated way, allows us the necessary organization of the processes with the flexibility of each student (MORAN; MASETTO; BEHRENS, 2013, p. 31, our translation).

Not being so easy to analyze separately the school configuration of this context of cyberculture, it is “*modus*” of being and doing education: “It is impossible to separate the human from the material world, as well as from the signs and images and signs through which it gives meaning to life and the world” (LÉVY, 1999, p. 22, our translation)

Another elementary factor for looking at pedagogical intentionality from the perspective of cyberspace is looking at the individual in his interaction with his environment, producing learning, thus becoming an active and participatory being. Almeida (2009, p. 29, our translation) stresses:

Technologies and knowledge are integrated to produce new knowledge, which, in turn, facilitate the understanding of current issues and greatly favor the development of projects in search of innovative alternatives for the transformation of daily life and the construction of citizenship.

In this case, the student's active participation in the learning process is permeated by the conception of different spaces of cognitive construction. It is the knowledge that is done, building group and individual activities, providing motivation and meaning in what constitutes the focus of studies, and this approach is also the one in virtual environments in which there are multiple forms and ways of building this greater interaction with knowledge.

For learning to be effective, with student autonomy, it is necessary for teachers to create research groups, also by digital means, using virtual tools to integrate with projects, allowing a space for sharing resources, common information and, mainly, for any exchange of ideas and encouragement of cooperative work. Thus, the teacher learns at the same time as the students, with an exchange of knowledge taking place.

For the classroom space to become intentionally a fertile and productive field for knowledge and a place where students feel desire to be, it is necessary for the educator to change and transform his/her practice, attracting the students' attention. In this perspective, it is necessary for the teacher to know his limitations on the different technologies and how to use them. This is necessary because even though these resources are not yet physically installed in the classroom or at school, audiovisual media has been invading the school space.

There is a challenge for teachers to use audiovisual resources in their pedagogical practices, such as images, videos and sounds that attract and draw attention of new generations, different from textbooks and the same old school routine. When integrating the new technologies, the teacher will offer a more dynamic teaching and transform the classroom space into a place of investigation, reflection, discovery and construction of new knowledge. According to Freire (1997), the teacher when teaching, is learning, and whoever learns, teaches when learning. In this sense, students will learn to build their own way of seeing, arguing, interpreting and writing, this does not mean that the teacher will make the search for him, but rather, guide him, because the teacher who does not know how to learn will not be able to teach.

One of the great challenges is to have teachers who know how to transform information into formation, to make the student think and develop, thus expanding the number of good professionals, who are safe and well-structured in their knowledge in face of technologies. Kilpatrick (2011, p. 25, our translation) stated: "We are in a time of change. What can we discover during these changes? [...] Among them, there are some specific trends, which at least now, seem inevitable".

In this perspective, teaching is a profession full of paradoxes, with demands, expectations, challenges and, also, with hope and possibilities, with the main objective of building a practice that promotes the integration of the University/society. Lévy (2011) explains that through a technological tool the teacher stimulates the collective intelligence of his students, since the procedures of interactive communication amplify a profound mutation of information and of the relationship with knowledge.

It must be considered that, in order to have good results, students need to know how to interact, cooperate, research and develop their skills, in group or individual. With these conditions being worked on, it is possible to offer a suitable professional, with quality production in his work sector, having a quality professional trajectory, forming prepared and competent citizens for the contemporary world. However, this is a great challenge for those who promote education, to prepare students to exercise citizenship, so that they have

autonomy and know how to solve problems in life and work. It is a task that requires a lot of experience and research to learn how to properly manage the role of a teacher.

The interactions in these processes, which are based on the informational revolution - Lojkine (1995) calls it the development of the tool, writing and the machine -, led to the development of the network society, which is at the heart of the economy and global relations as well as in the valuation of immaterial goods. In education, digital media, according to Silva (2012), are in a context of high pressure in relation to technological advances that, on the one hand, guarantee them better didactic and pedagogical conditions and, on the other hand, cause environmental and technological changes of an era of modernity.

Thus, cyberculture that “expresses the emergence of a new universal” (LÉVY, 1999), approaches young people and teachers, who, for the most part, always feel displaced with so much information. It is possible to believe that university professors are the most charged because they are responsible for receiving these students, who, in turn, enter the academic environment full of expectations and doubts from their previous experiences and, the University as a whole, makes the teacher welcome and invite the student to participate in their classes.

Notoriously, technological tools have been gaining strength in the Institutions and teachers, facing new information and communication technologies, are distressed with the impact that these changes can cause in the teaching-learning process. It is necessary to understand the transformations of the world, producing pedagogical knowledge about technology. Information society, information age, knowledge society, digital age, communication society and many other terms that are used to designate the current society. There is a perception that all these terms are trying to translate the most representative characteristics of communication in the social, cultural and economic relations of our time (SANTOS, 2012, p. 2).

Still in Santos (2012), it is emphasized that the internet reaches thousands of people all over the world and, sometimes, it ends up being educationally desirable, since one of its objectives is to break the barriers imposed by the walls of schools, making it possible for the teacher and the student to know and deal with a different world from cultures and realities still unknown, with exchanges of experiences and collaborative work. However, in a society with social inequality, such as the one we live in, the University, according to Demo (2004) is the locus of learning and knowledge.

Final considerations

Given the proposal to study the pedagogical intentionality in the face of the cognitive potential of cyberspace presented by Lévy, it is important to emphasize that the preparation of teachers for the use of digital media and objects as didactic-pedagogical materials is still insipient. Therefore, the technological resources in themselves do not bring any guarantee of significant transformation in education, but rather, the importance of improving teaching work, being a tool that facilitates its practice.

Cyberspace, as a cognitive possibility, is presented and is experienced in the context of cyberculture by teachers and students, with the constant challenge of epistemologically rethinking pedagogical experiences based on methodologies demarcated by the restricted use of resources and didactic possibilities. Today's education involves reframing the meaning and the universe of knowledge, in which cyberspace is present as necessary to be didactically thought out.

To the teacher it remains the challenge of following technological developments, adapting them creatively to classes, contributing to make an objective didactics and making it compatible with the challenges of inserting artifacts and other resources in education. There is a need for adequate preparation of education professionals in the area of the use of technologies in the classroom, aiming at the didactic character of the information contained in the media and the new skills required by society. This challenge goes hand in hand with contemporary pedagogical meaning and practice, in which, pedagogical intentionality denotes the paths of teaching and learning in cyberspace.

Also, the understanding and need to expand the opportunities for accessing information, which consequently change the form of teaching work organization and lead to another view of professional demands. It is possible to dialogue with the statement of Flickinger (2010, p. 193, our translation) when he says: “because formation encompasses - as the Greek '*paideia*' and the Humboldtian concept of '*bildung*' teach us - the human being in its entirety and not only as a functional element in a system he experienced as a world imposed on him”.

Finally, it can be said that the research presented shares the potential of a teaching, in which the space in networks, the educational experiences of teachers and students are projected in the context of cyberculture and the constant need for an epistemological perspective in the educational environment is unique.

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