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Review Article

Metaverse as a cross complex scene of technical education

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ABSTRACT

In the digital age, major changes have taken place in the field of education. All those involved in the teaching stage are invited to reflect on the challenges involved in technical literacy. The purpose of this article is to consider the cross-complexity challenges involved in technical literacy as metaverse enters the classroom. With the support of humanistic paradigm, literature research adopts philological methods, qualitative methods, exploratory interpretation types, literature design, reading technology and search tools, organization and information analysis. After two years in prison, the educational process is still utopian in the face of a technological world full of differences, prototypes, contradictions and challenges. Before existing bases are subject to the wrong dogma that technology will replace them or become their biggest enemy, the education system must be strengthened to understand the changes of prototypes. Surprisingly, the pandemic has fostered a vision of a world where it is possible to assess, reassess and give new relevance to the training process. Therefore, it is necessary to balance the beliefs of epistemology, ontology, teleology, axiology and methodology, and produce a new dialogue in the interrelated educational practice. In this dialogue, transcendence is promoted and a higher level of knowledge is achieved under the internal reflection of people in digital education.

Keywords: agogic science; cross complexity; metaverse; technical education; practice

1. Introduction

In the digital age, great changes have taken place in the field of education, which urges all those involved in the teaching process to reflect on the challenges in the process of technological literacy. To begin this journey, we analyzed the emergence of Ag Science in education, the universality of horizontal thinking and learning, and the emergence of metaverse in the classroom. This brings us to the beginning of knowledge being constructed, from simplified reductionism to the complexity of reality, from discipline to the interdisciplinary nature of knowledge, and as a new way of thinking and feeling the transcendental complexity of life art.

From a broader perspective, balza[1] pointed out that all thoughts are energy, which flows and transcends the noumenon and allows itself to understand the diversity of levels; This leads to a construction dialectics beyond complex knowledge, which overcomes the gap between philosophical thoughts in education. In this sense, Morin et al. told us that, "we are building a roaming, which is often uncertain and unexpected between roaming and the results of our strategy". Therefore, the complexity of thought is manifested in the epistemological choice of designing reform in the dimension of human ontology[2]. Of course,

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it is this method that points out the direction for knowledge construction from an interdisciplinary perspective[3]. It is in this intellectual process that two aspects converge, one is thought and the other is language[4].

All this confirms that the field of technology has brought us to a beyond complexity of the educational world through the meta universe defined by Mujica sequera. It is just "a combination of various technical components, including virtual reality and augmented reality[5]". Therefore, it requires people to make intellectual and creative efforts to surpass some important aspects of complex thinking: a new way of thinking, feeling and living in a virtual society. Therefore, this extensive discussion aims to reflect on the challenges faced by the transcendence of technical literacy as Metaverse enters the classroom.

2. Development

This article is meaningful from the point of view put forward by Peres[6]. He believes that university teachers are trainers. In addition, University Teachers in the 21st century must face a reconfiguration of formative and identity. These arguments lead to the evaluation, reevaluation and re recognition of educational space in order to overcome the obstacles of epistemology, ontology, teleology, axiology and methodology and challenge the transcendental complexity of the world, As the author Sotolongo said, "interdisciplinary does not mean multidisciplinary, but respect the diversity of knowledge"[7] to solve the interdisciplinary problem in knowledge construction in the digital age.

In this regard, Peres believes that the term agogic refers to "transportation, movement or driving"[6]. The field of education is interpreted as a variety of ways to promote knowledge acquisition. In addition, it depends on the background, needs and teaching of teachers and students. Therefore, this study is carried out under the philological method supported by the humanistic

paradigm, using the methods of qualitative research, exploratory interpretation, literature design, reading technology and retrieval tools, information organization and analysis.

3. Emergency agricultural science in education

In this regard, it is worth noting that the learning cycle of education in the 21st century does not go beyond traditional pedagogy, but from the perspective of knowledge (pedagogy, hebegogia and andragogia, paidology, gerontology, anthropology, ergonomics, paragogia and heutagogy) (**Figure 1**). In other words, the teaching process in the digital age does not take advantage of technology, social networks and the skill potential to maximize the leading role of students as an option to think about the expression process of explaining the difficulties of human life.

Figure 1. Emergency agricultural science in education[5].

It can be seen that learning has come a long way of innovation and change, which invites teachers to update themselves in order to obtain relevant use in the digital education developed by Mujica sequera[6].

Pérez senala believes that from this agricultural knowledge, the fact of education is dynamic, and the role of teachers is more structured, because

"in order to guide knowledge, sometimes pedagogy must be used, and sometimes heuristics or andragogy must be used"[7]. From this argument, it can be understood that there are calls for accelerating agriculture in order to reveal appropriate and available opportunities beyond complexity in education, teaching and teacher training.

Different authors refer to the term "teaching" as "learning and teaching science". For example, Dolch[8] as the science of learning and teaching in general. Azevedo is regarded as "a social phenomenon with two characteristics[9]: objectivity and coercion" and teacher training, which refers to the abilities and procedures designed for education and teacher empowerment. According to Diaz Barriga[10], this can be viewed from three different perspectives: technical behaviorism, constructive and reflective criticism.

Similarly, it is worth emphasizing that according to Komensky, the term pedagogy is the research on the early education of children in the stage of basic education. The author Rodriguez Bauza believes that pedagogy studies the education of teenagers in the stage of secondary and diversified education. In addition, Knowles points out that andragogy is a science that studies adult education until maturity. However, in technical education, we must plan under the chain of Agricultural Science in order to formulate a correct teaching method according to the different stages of human life.

It is worth noting that education in the digital age is supported by technology, which requires people to redefine the meaning of education from an overall perspective. In other words, education is not divided by methods. There, transcending complexity invites us to transcend knowledge and try to integrate its parts into a whole. To do this, eliminate the bureaucratic chain reflected in educational communities, which have created codes that drag down the true meaning of the word "education[11]". Therefore, Mujica sequera[12] defines technical education as a technology-based teaching practice, which has the ability to connect different dimensions, employees living in a closed environment, and the emergence of multi-dimensional, interactive and random education. In this education, students are forced to develop reflective or complex thinking strategies (see **Figure 2**).
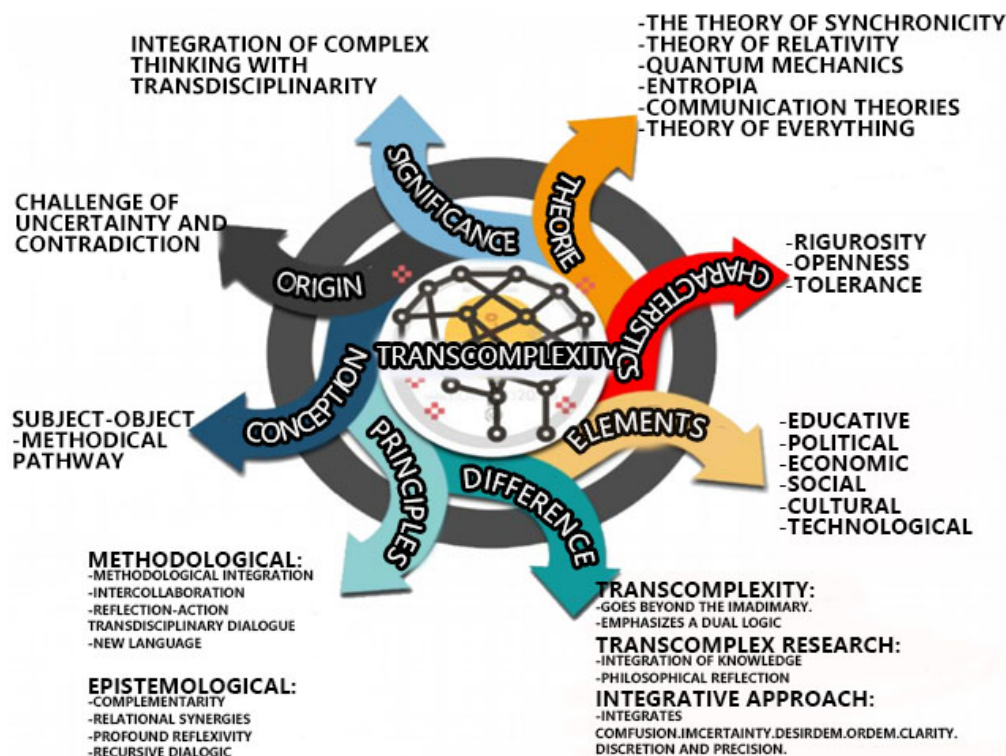

Figure 2. Transcendence in educational practice.

Therefore, a new concept of human rights is necessary to accommodate all the diversity generated by globalization, the privilege of proving lifelong education, education of Intercultural Citizenship, the establishment of multiple parent-child relationships and the idea of solidarity. However, considering the mainstreaming of human rights as a cultural and dynamic genre, it is always based on respect for the dignity of everyone, not on abstract humanism.

Complexity is indispensable to individuals and society. This should not be seen as harmful. On the contrary, it should be seen as a challenge to overcome. The internal background of different cultural groups in the same space requires their identity. In fact, the cultural integrity demanded by today's society means that all citizens must have rights and obligations. Therefore, the education system is the appropriate means to achieve this goal, because the mode of education allows people to become adults, that is, capable people, free from ignorance and prejudice. Cultural identity refers to a person's hierarchy in front of the cultural group in which he grew up[13].

3.1. Horizontal thinking and the universality of learning

So far, all this has led us to reflect on horizontal thinking and ubiquitous learning, where human intelligence and learning ability have been proved. They represent "complex, abstract, immaterial aspects rooted in existence, essence and personal identity that require interdisciplinary research"[6]. Perez senara also said that "learning is a dynamic lifelong process that does not depend on strict or standard mechanisms". This argument reminds us that due to the different learning styles of everyone, it is impossible to homogenize the teaching practice in digital education, because it leads to classroom indifference, so as to build a society divorced from reality.

As described by Mujica sequera[14], teachers must understand 13 types of learning in order to plan teaching tasks according to the types of learning in the classroom. The current technological development is expanding at an exponential rate, because it is ready to establish an interface in the technical field through a common digital expression, in which information is generated, stored, retrieved, processed and transmitted. The prophetic amplification and ideological treatment of technology should not lead to the negation of its real human meaning. According to Kranzberg[15], the historical correspondence of technological revolution shows that they are identified through their insight in all fields of human activities, not as an external impact source, but as a canvas for such activities.

In addition to the above arguments, Perez also reflected on Bono's[16] author's view that lateral thinking is a technology to stimulate or stimulate thinking, which helps to change the way problems are usually solved indirectly and creatively. Importantly, this technology promotes the organization of the thinking process to achieve solutions through capable, more creative and innovative ideas that are ignored by logical thinking. This enables us to prove that digital education must be reconfigured from teaching. As the author Balza[17] said, horizontal thinking must be stimulated to overcome the position of cultivating cross hermaphroditism.

Therefore, the elements of horizontal thinking, such as verifying assumptions, asking correct questions, creativity and logical thinking, are necessary for technical education, because they strengthen human complex thinking and a community recognized cross piston arena. As the author Korr Cetina[18] said, cross piston sand is the space to establish, define, update or expand resource relationships. Perhaps one of the most monopolized superstitions is the depth of information, which has unlimited access to all content. In addition, it is endowed with meaning through technology as an element of educational institutional change and change.

As Cabero[19] pointed out, the general char-

acteristics of this technology penetrate into all fields, such as interconnection, interactivity, immediacy, expression language, breaking expression linearity, improving image and sound quality parameters, enhancing segmented and differentiated hearing, digitization, product process and automation trend, Diversity and innovation are part of a larger system that supports human dynamic processes.

In the last reflection of the author Perez, "technology makes ubiquitous learning possible", which is supported in Burbles[20]. He said that "ubiquitous learning environment is a learning scene or environment anywhere in cyberspace". Therefore, we can say that in technical education, "it is a basic element of today's society because it encourages motivation, mutual action, decision-making, trial and error-based learning, communication and cooperation[21]".

At present, a technology-based education paradigm is in a state of emergency. Many education and educational institutions are not prepared to respond to the changes needed and related to the digital age. Ubiquitous technology education no longer exists. Ubiquitous learning is a great ally in the era of imprisonment, because ubiquitous is defined as a feature anytime and anywhere, a human feature.

Therefore, technology education is not a gesture, it is a paradigm generated from the technology driven educational challenges. Due to its flexibility, rapidity and personalized learning, it can better understand the whole of students. This technology provides connectivity anytime, anywhere. Every day, there are new devices called pervasive computing, such as smart phones, TVs, cameras, tablets and so on.

Zhang[22] and other authors believe that pervasive computing environment is a field that includes a group of embedded systems and is improved by computing and communication technology. Therefore, as supported by the authors of Flores and Garcia[23], the main characteristics of

this learning are mobility, interactivity, collaboration, informality, flexibility and portability, which are necessary for human intellectual growth. To sum up, the key to designing ubiquitous learning system is to formulate technology-based teaching quality standards.

The above method shows that, with the support of Verneaux, the establishment of a cognitive matrix is nothing more than "when reality and spirit, research objects and themes change, truth is evolving, or more precisely, progress in the necessary way through dialectics[24]". As Lenz[25] said, "the best challenge for a researcher is to enter the shadow, the unknown darkness and the vague intuition without fear". In fact, the diversity of educational paradigms and viewpoints means that in order to create new research in an interdisciplinary and complex way, we can establish a variety of epistemological expectations for the acquisition of research objects from a multi reference perspective.

3.2. Metaverse enters the classroom

The need to understand the heterogeneous reality of human coexistence is supported by Lomelli[26], "the ideas advocated in the classroom are simple, linear and overly disciplined". Therefore, the view of the naturalness and segmentation of reality is the inevitable result of understanding social change and human development. Therefore, interdisciplinary attempts to "restore a consistent image of the world through the comprehensive study of nature, the universe and mankind"[27]. However, at the practical level, interdisciplinary works when educators can promote encounter, which in turn dialectically constructs and reconstructs knowledge[28].

Therefore, the multicultural perspective has triggered an interesting debate on interdisciplinary, which, according to Balza, is "an emerging way to think about human reality from a broader perspective, because multiculturalism is the dialogue and encounter of human knowledge and behavior"[7]. Therefore, it calls on us to adopt a broad world

outlook, break stereotypes and become more sensitive and humanized.

Therefore, as Metaverse enters the classroom, teachers must have an overall and technical vision, because entering this world means understanding, managing and designing the classroom in the virtual world. In short, Metaverse is a virtual space, which can represent a real physical space or digital world. A good example is the film "ready player one", but this concept was originally promoted by Stephenson in his book avalanche, in which he clarified that people in the digital world are represented by avatars. This is a virtual environment that you can access with or without AR/VR headphones. Metaverse is also known as "Espejo world" or "space Internet", or even "air cloud". Key concepts include augmented reality and virtual reality (AR & VR). In other words, it combines the concept of virtual work space and social space. In other words, it supports multiple users.

In the field of education, three-dimensional environment began to be implemented in the early 1990s. Since 1994, with the emergence of Virtual Reality Modeling Language VRML (Virtual Reality Modeling Language), the use of virtual environment has become feasible. Since then, the development and communication process of 3D virtual classroom has also made progress. The metaverse, in a nutshell, is a virtual space that can represent a real physical space or a digital world. At present, there are some applications that can be used in the field of education, including fortnite, minecraft, second live and roblox (see **Figure 3**). As mentioned above, Metaverse combines all aspects of life. Although many people already work from home due to the pandemic, in metaverse, they can enter offices, classrooms or 3D meetings and interact with avatars present. Technical education is constantly developing, and daily activities are carried out every day.
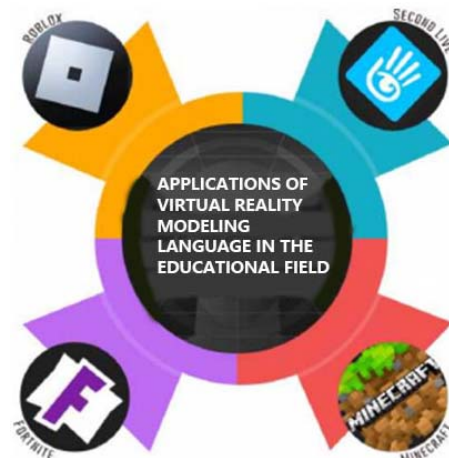
Figure 3. Application of virtual reality modeling language in the field of education.

Over time, these changes have optimized education and opened the door to the digital age. There is no doubt that Metaverse has its advantages and disadvantages, because it will gradually disappear from the human factors in our lives and will be replaced by the avatar in the goal of immersive learning. As senalan Rodrí Guez and Banos[29] said, the virtual world in meta poetry creates a paradoxical sense of anonymity and the existence of the subject. It is a complex enjoyment state through the expression of avatar. At the same time, if not, it breaks the obstacle of verification between teachers and students.

Therefore, teachers must be supported by educational institutions in literacy, because in the metacosmic world, starting immersive learning requires preconditions, technical skills, specific equipment and Internet connection. Most importantly, however, a new way of thinking and feeling, as an art of life, allows it to manipulate "the thought of Homo sapiens and the culture in social and historical subjects are not static entities"[1]. Therefore, Chopra "all ideas are an energy process stimulated by the field of partnership". Therefore, Villegas[30] believes that a comprehensive epistemological method beyond complexity in education must go beyond "isolated, fragmented and non-textual environment and move towards the concept of an object expressed in multiple directions"[22]. This raises questions about researchers' ontological imagination and intellectual flexi-

bility.

Therefore, all the above views require everyone involved in the teaching process to rethink the premise of how to carry out education in reality. In other words, teachers and educational institutions should redesign the methods of observation, investigation, analysis, understanding and interpretation, so as to improve the academic image of future citizens. As Fernandez said, "this means a dialogue between logic and contradiction, rationality and irrationality, randomness and necessity, order and disorder, certainty and uncertainty in an open, complex and complementary relationship". From this perspective, the interdisciplinary nature in the field of technical education transcribes the idea of teachers' integration, coupling and surpassing the overall structure, so as to strengthen the unity of new knowledge.

4. Conclusions

The above views make us reflect on the complexity of today's education field. As the author Gutiérrez and Prado[31] pointed out, an educational scene beyond complexity must strengthen human development, human creativity, active participation, holistic education, teachers as promoters, free atmosphere, participatory democracy, a healthy earth and links with life goals, which nourish and promote global civic education.

Therefore, by quoting the transcendence in the field of technical education, we reassess the basic components of the digital age from the perspective of ontology, epistemology, theology and axiology, such as education in infinite time and space, interdisciplinary content, organizational interweaving, new strategies for knowledge integration, cultural integration, scientific philosophy exchange, understanding of reality, emotion and creativity, Collaborative and reflective experiences in emerging societies, from their personal prism. However, when education, technology and people's feelings are intertwined, under an internal gaze, it strengthens people's internal in digital education. As a new educational paradigm, technical education appears to improve the hermeneutic cycle of education.

I personally agree with the view that we are now in a post-modern and multicultural society, represented by continuous scientific and technological progress and sustained migration flows, which outline the new requirements, new situations and new challenges in the field of education. Digital education cannot be regarded as a modified knowledge replication tool, but a unique field for critically reshaping a complex, heterogeneous, prosperous, versatile and dynamic culture in which e-learning optimizes the quality of education, individual and collective development in a hyper connected society.

It is therefore necessary to rethink the new role that educational institutions must play from an inclusive, cross-cultural and inclusive paradigm in taking advantage of the opportunities provided by technology. In terms of technical education, the gap between educational institutions and socio-cultural realities must also be overcome through the use of social networks and the establishment of flexible and dynamic training models.

In short, in order to embody the concepts of interactivity, interconnection, immediacy, communication, knowledge, richness and cross-cultural citizenship, it is necessary to master methodological skills based on cooperation, participation and joint learning among educational institutions around the world. Similarly, it can be said that, human thought is connected with a universal super cognitive network, and knowledge and wisdom will always be available. Therefore, exploring the transcendence complexity in knowledge construction is helpful to reflect on the comparison between programming methods and heuristic methods.

Conflict of interest

The author declares no conflict of interest.

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