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DIGITAL EDUCATIONAL GAMES FOR THE DEVELOPMENT OF EDUCATION IN THE POST-MODERN ERA YUVAL NOAH HARARI'S PERSPECTIVE

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Abstract: The use of Digital Educational Games available on *tablets, smartphones* and computers to offer children creative and interactive learning conditions is the main focus of this article, since the cosmos continues without turning back to reach an uncertain reality due to the unstoppable advance of technology.

Digital Educational Games emerge in this context as a didactic resource that contains characteristics that can bring a series of benefits to the practice of teaching and learning. This article presents the potential of Digital Educational Games, based on studies by experts in the field, using Harari's work as a basis, on the 21 lessons for the 21st century, which brings with it proposals for content or subjects to be taught to children in the 21st century to better adapt to the challenges of the future.

Likewise, it points to problems that can be overcome from the Games in the sense that they develop competences, creativity, knowledge and other skills throughout the educational process.

Keywords: Education, Educational Games, Technology.

INTRODUCTION

Several studies have shown that Digital Games have played a fundamental role in the post-modern era, allowing countless specialists to carry out research in order to understand their attractiveness and the impacts they cause on Man.

Indeed, on the one hand, countless young people and children are persuaded by Digital Games and tend to stay for long hours, completely dedicated to the challenges and fantasies proposed by them, generating the feeling that they are free of "distractions".

On the other hand, given the poor quality of Education, some parents and guardians would approve of their children applying the same level of attention and commitment to their studies as dedicated to Digital Games, insofar as they absorb energy and take away time from them could be devoted to learning.

Therefore, Digital games are so intrinsically linked and rooted in the DNA of young people and children that it would be reckless not to take advantage of their potential and possibilities for Education.

HARARI'S VISION OF TECHNOLOGICAL ADVANCEMENT FOR PRESCHOOL EDUCATION

Yuval Harari, demonstrates the other prism of technological advancement and its implications especially for current children, future adults in the 2050s.

Harari, begins his approach with the following sentence: *"In a world flooded with irrelevant information, clarity is power, because in theory, anyone can join the debate about the future of humanity, but it is very difficult to maintain a lucid vision"* (Harari 2018:7).

Through this pronouncement, Harari intends to lead a reflection around the subjects taught in classes, where teachers tend to spill information to students at a time when anyone can seek information for themselves, as long as they have access to a digital device with *internet* access for the purpose.

The author declares that *"every hour an adult walk in and starts talking {…} but so far we haven't come up with a viable alternative, let alone an adaptable alternative, that can be implemented in rural Mexico, not just the upscale suburbs of California"* (Harari, 2018, p. 235).

Thus, he goes on to mention that the best advice he can give to a fifteen-year-old studying in an outdated school somewhere in Mexico, India or Alabama is: don't trust adults too much, because most of them have good intentions, but don't trust them. Understand

the Harari World (2018).

In other words, in a period like this in which technology is outstanding, the best thing to do is to abandon anachronistic paradigms for teaching and learning children and adopt new models that incorporate the prevailing technological era in the 21st century.

Harari (2018), goes further, mentioning that from the 1990s onwards, the internet has changed the world, probably more than any other factor, in such a way that the only certainty is that the future holds radical and unprecedented changes and (contradictorily) uncertain.

The approach to uncertainties is also supported by Bauman (2007) when he tells us about the passage from the "solid" state (which saw its alteration taking its first steps during the Industrial Revolution) to the "liquid" phase of modernity, experienced with great intensity since the Second World War. That is, since the industrial revolution the course of things has changed and, above all, with technological advances.

EARLY CHILDHOOD EDUCATION IN THE POST-MODERN ERA WITH PREDOMINANCE OF TECHNOLOGY

WHAT MUST CHILDREN LEARN?

Technology is fundamental for the development of all spheres. Therefore, at a time when it has already proven that it is progressively improving, achieving ever greater achievements, Education can be one of its greatest beneficiaries.

In addition, taking into account the situation that the world is going through, there is a need to find new paradigms for doing Education considering the real context of each society and allied to the interests of the children of the time, in the sense that, instead of If schools focus only on filling children with information in order to develop predetermined skills, it is important to qualify them with socio-emotional skills and abilities (soft skills) for Harari (2018).

The author also shares that *"many pedagogical experts argue that schools must start teaching the 'four Cs'—critical thinking, communication, collaboration, and creativity"*, (Harari 2018: 233). This shows that it is necessary for decision-makers and educational officials, as well as those who design curricula, to start thinking outside the box, considering the need presented by the situation and associating what exists in favor, with a view to filling existing needs.

Like the author mentioned above, this subject had already touched Lyotard's (1988) thought, 30 years before Harari exposed such a subject. For, according to (Lyotard, 1988:12) *"to begin with, scientific knowledge is not all knowledge {…} It is not a question of saying that the latter can prevail over it, but its model is related to the ideas of inner balance and user-friendliness, compared to which contemporary knowledge pales"*.

It means that scientific knowledge in itself, without being compassionate with the daily life of children who are learning at that moment, is worthless if contemporary knowledge or the context of this same learner is taken into consideration.

Those who express the lack of interest in not involving the current reality in the educational situation are also Santos (2018) when he states that, "…knowledge other than science and technology was produced as non-existent, or reduced to local data, thus being radically excluded from modern rationality" (Santos 2018: 26).

That is, what matters most to educational curricula is what has already been decreed several years ago as fundamental to teaching and the ways in which they are taught, tending to ignore reality and evolution.

This way, Savi & Ulbricht (2008) guarantee

3

that, currently, Digital or technological Educational Games are increasingly inserted in people's daily lives and in the most different spheres of society, since there are several sectors that are including Games in his routine and in Education it could not be different.

The aforementioned factor is also supported by Harari (2018) insofar as he states that in a broader sense, schools must minimize technical skills and emphasize skills for general life purposes, thus revealing the great mission of pre-school education.

TEACHINGS FOR THE
EDUCATION OF THE FUTURE

To fit into the world of 2050, or the 22nd century, Harari (2018) states that people will need more than the ability to invent new ideas and products – they will need to reinvent themselves over and over again.

And, this rule does not escape the educational branch, where Harari (2018) already mentions in the aforementioned paragraphs that it is necessary to teach the 4 C's, (*critical thinking, communication, collaboration* and *creativity*), which coincides with the opinion of Morin (Sd), insofar as he invokes the seven knowledges necessary for the Education of the future. Are they:

Knowledge; Relevant knowledge; Human identity; human understanding; Uncertainty; Planetary and anthropo-ethical condition. Which is consistent with Harari's thinking, as both reveal the same interest in the task of Education for the coming period, and perhaps the current one. This fact contributes to the preparation of the child to know how to deal with the vicissitudes of the future.

In fact, Hannah Arendt (1957) had already warned about this need, in her work "*The Crisis of Education*" insofar as she addresses birth rate as the birth of a new being in which society must present it to the world and, above all, to the context in which you live.

The author seeks to portray the human being's relationship with the birth of a child, as it is from this concept that she observes in the extension of life the possibility of the "new" becoming "current".

For the author of *The Education Crisis*, *"New transformations would occur through the emergence of a new life, as only a new creation is capable of bringing the "new" to the world, even if in the form of a new beginning."* (Arendt 1958:13). Being that this way the man must have the flexibility to always learn as many times as necessary. Harari (2018).

Therefore, Freire (1968), capitalized in his work *"The Pedagogy of the Oppressed"* that the role of Education must be to free individuals through "critical, transforming and differential awareness, which emerges from Education as a practice of freedom", objects suggested by the aforementioned authors about teaching children to know how to be and be, according to with the context imposed on them. And, this is only possible if the sector is equipped with tools and can use them.

On the same subject, Prensky (2001) states that those born in the technological generation or in the postmodern era, which he nicknamed "*the digital natives*" are used to obtaining information quickly and interacting with different media at the same time. due to their daily coexistence with computers, video games, digital audio and video, practically since they were born, which is why the author suggests that this possibility be used for their learning from Educational Games through electronic devices.

In addition, Kishimoto et al (Sd), supports the idea of Prensky (2001) stating that currently games in Education are classified according to two functions. The first is ludic, which provides pleasure and fun, the second is educational, as the game can help or promote the acquisition of knowledge. Given that playing is part of every child's everyday life, it

is also a very important agent for an educator or teacher to make their work more fun and bring better and greater results for the child.

PREVENTING ALIENATION AND HUMAN DEPENDENCE ON ALGORITHMS

In mathematics and computer science, an algorithm is a determined sequence of practicable actions that aim to achieve something solvable for a given type of question, as they serve as guidelines for solving a problem.

In this regard, Harari (2018) severely criticizes the monopoly of digital companies and warns of regulating the use of personal data. For him, the main skill is no longer learning any fact or physical equation, but how to keep learning and changing throughout life, since the transition time to the new mindset is running out. And it would not be an exaggeration to say that whoever is left behind runs serious risks dominated by the choices of others.

Despite Prensky (2001), being one of the greatest advocates of the use of Educational Games for Children's Education, he also warns of an imminent danger of the supremacy of technology over children, as the author warns that children have the habit of being constantly connected to their peers, either through their cell phones and SMS instant messages, or through their computers connected to the Internet network and communication tools such as Messenger (MSN), Google-Talk and others.

That is why Harari mentions this danger by referring to the following:

> Right now, the algorithms are watching you. They are watching where you go, what you buy, who you meet. Soon they will be monitoring your every step, every breath you take, every heartbeat. They are relying on Big Data and machine learning to get to know you better Harari (2018:236).

And he goes on to say that as soon as these algorithms know Man better than he knows himself, they will be able to control and manipulate him. And that if that happens there won't be much to do, because he will be living in the matrix, or in the Truman Show, Harari (2018).

> After all, it's a simple empirical matter: if the algorithms really understand better than you what's going on inside you, authority will pass to them. Of course, you could be happy ceding all authority to the algorithms and trusting them to decide for you and the rest of the world. If so, just relax and enjoy the journey, (Harari (2018:236).

Therefore, Goleman et al (2002), calls for the domain of personal skills to determine self-management, such as emotional self-awareness. That is, the child must, from an early age, be taught and learn to use his own instincts to guide decisions, as well as have emotional self-control to keep destructive impulses and emotions at bay, even in cases where the will calls him to perform a certain act that will not protect or benefit you.

This means that children must be taught from an early age to put limits on their own emotions so that they are not dominated by technologies, but rather, so that they make good use of them, because, according to Harari (2018) technology does not it's a bad thing.

In the 20th century, the "common man" was seen as a hero and as the most important figure for the future. However, the same Man, has passed into irrelevance in the 21st century, as terms such as artificial intelligence (AI), blockchain and genetic engineering gain more and more relevance and as a result of this is an apparent growth in the insignificance of Man (Harari, 2018). However, he gives some solutions to the phenomenon in the sense that he states that:

To remain relevant not only economically, but above all socially, you will need to learn and reinvent yourself all the time, at an age as young as fifty {…} To survive and progress in such a world, you will need a lot of flexibility mental and large reserves of emotional balance (Harari, 2018:234).

Therefore, to remain relevant, Man will need to use technology to his advantage and not become its slave.

PREPARING CHILDREN FOR A WORLD FILLED WITH UNPRECEDENTED TRANSFORMATION AND SUCH RADICAL UNCERTAINTIES

When there are paradigm shifts, it is necessary to prepare all human beings and all sectors to face them, with a view to preparing children, therefore adults, must be concerned with the fundamental issues of human beings, one of which is Education.

In this regard, "*The reforms are accompanied by new challenges, and in order to organize and manage Education, it is essential that its managers have an innovative profile, that they carry out new practices in contexts of constant change and innovation*", refers (Schultz 1988:2).

In fact, the educational process must contemplate the subjects involved in its practice, their actions must adopt the social pertinence leading them to the democratic experience. In this context "such procedures involve several dimensions of Education to assume characteristics of democratic management producing educational autonomy.

 The aforementioned author alludes to the fact that "*educational policies and legislation linked to public education dialogue intensively with the ordering of the educational system, however they must be evaluated from a social and ethical perspective in order to serve the democracy of the group to which they are submitted*" Schultz (1988:2).

Thus, according to the author, it is up to educational actors to know how to make important and beneficial decisions in this process. It is not enough for teachers to be competent in their classes, but they also need to know and analyze the contexts in which they practice their profession Schultz (1988).

On the aforementioned subject, (Harari, 2018: 236) warns:

A baby born today will be thirty years old by 2050. If all goes well, that baby will still be around in 2100, and might even be an active citizen in the 22nd century. What must we be teaching this baby to help him survive and thrive in the world of 2050 or the 22nd century? (Harari, 2018:229).

That is, the educational sector must already foresee in its curriculum policies the type of skills that this child will need for their healthy survival in adulthood.

Of course, humans will never be able to accurately predict the future. But today this is more difficult than ever, because once technology has enabled us to design and build bodies, brains, and minds, we can no longer be certain of anything—including things that once seemed fixed and eternal. Hence, it is likely that much of what children learn today will be irrelevant in 2050 (Harari 2018: 229).

Indeed, this has been the preoccupation of Western liberal education for centuries, but until now most Western schools have been quite lax in complying with it. But in the 21st century, hardly Man can afford stability, because if he tries to cling to some stable identity, job or worldview, he risks being left behind when the world flies by Harari (2018).

However, he ensures that even in 2050, there may still be some professions that will not be alienated by Artificial Intelligence, as it will be much more difficult to replace humans with machines in less standardized tasks that require the simultaneous use of a wide

variety of skills, and that involve dealing with with unpredictable scenarios such as: choirs, symphonic music, concerts, operas etc. Harari (2018).

And for that, Education needs to focus on this type of skills, with a view to ensuring future employability, based on the Educational Games available on the *internet*.

Therefore, the new model of Education must make a point of proposing and/or including a new construction of models and even autonomous institutions with the capacity to form decisions, elaborate institutional projects linked to the current and future needs and interests of society, as well as choose strategies that allow you to reach the desired results Schultz (1988).

And finally, it is important to remember that the Industrial Revolution left as a legacy, the theory of the production line of Education and it is up to the Man of the 21st century to find ways to guarantee Education taking into consideration, the technological challenges proposed by Harari (2018), with a view to guarantee the permanence of the human species far from imminent dangers.

FINAL CONSIDERATIONS

In a world where technological advances are getting stronger every day, it refers to the Man of the 21st century, to a reflection and action on the steps to be taken with the purpose of ensuring the healthy permanence of the human species in a time when automation, Artificial Intelligence are taking power, making Man somewhat irrelevant.

In this order, there are some suggestions set out with the aim of allowing Man to prepare himself and minimize his insecurity in all the basic spheres of life, especially in the education of children and with the aim of avoiding his alienation by Big Data algorithms, as well as how to look for ways to stay relevant.

Indeed, the author calls for the use of models that involve critical thinking, collaboration, communication and creativity. Concepts that can be found in another educational perspective such as the use of Educational Games accessible through technologies, as the benefits and potential of this type of media are varied, in the sense that they develop children's skills in all spheres such as: physical- motor, socio-emotional, cognitive.

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