

STUDENT-CENTRED EDUCATION AND THE EDUCATIONAL EXPERIENCE

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Abstract

The education is being challenged its current role since formal education is outdated and needs urgently to be rethought to support the new demand of students. Digital Natives are natural speakers of computers, vídeo games, cell phones, and the internet's digital language and born and grew up surrounded by these technologies. This article approaches how these characteristics are not being considered in teaching methodologies and how the application of user experience can help in this process.

Keywords: education; Digital Natives; user experience; technology.

INTRODUCTION

The labor market and the economic scenario are no longer the same and have undergone changes motivated mainly by the emergence of digital technologies. Araya (2010) refers to theories that there is a transition from the 20th century skilled labor domain to knowledge workers in the 21st century, in addition to the growing importance of innovation, creativity and the Creative Economy, a new and worthy concept. According to the UNCTAD (2008) report, this transition is the interface between creativity, culture, economics and technology as an expression of the capacity to create and circulate intellectual capital, with the potential to generate income, jobs and export and, at the same time, to promote social inclusion, cultural diversity and human development.

In order to understand this Creative Economy's contemporary notion, Araya (2010) argues that the most important aspect is the recent shift driven by industry technology to services. Innovation and the exploitation of information has been an important factor in this process, gaining more and more focus and leaving behind the thought of efficiency gain in the production of goods and services. According to Tomaél, Alcará and Di Chiara (2005 *apud* TEIXEIRA, 2014), information and knowledge are in all spheres or areas and are regarded as essential when transformed by the actions of individuals, thereby becoming valued skills that will generate social and economic benefits that will in turn foster development.

Robinson (2005) points out that many of the old skills and attitudes will be redundant and that many countries in the world, including Brazil, are facing a creativity crisis and a talent war, essential factors for the development of the Creative Economy. The labor market, according to Oliveira (2010, p. 2), “demands people capable of facing the many challenges that are posed daily, people who know how to innovate, act quickly, creatively and competently”. Innovation, as confirmed by Mirable (2016), is the most effective way to mitigate future negative impacts and also to offer solutions to the impasses already existing in the current society. To create and to innovate are verbs conjugated by those companies that wish to remain in the market (OLIVEIRA, 2010).

Education, which is a determining factor in the development of both the citizen and a nation, is the

main tool to build qualified human capital, which is increasingly needed in the current era, and one of the foundations of innovation. Only education can reverse the unpleasant moral, social and economic situation in which many societies live. Unfortunately, education is neither universal nor accessible to all and it has been questioned in its current role, since conventional education is lagging behind and needs to be urgently rethought, mainly because of the aforementioned growing demand for creative and innovative professionals, skills that are mostly left out of the educational process. Ritchhart (2015) questions whether the traditional value of the school, which is measured in terms of results, usually exams and projects, is what we really wish for the future of our society. He argues that educators need to stimulate a culture of thought, one that produces feelings, energies and even fun that will propel learning forward and motivate hard and challenging thinking.

Education must be restructured in order to promote the development of creativity in all areas of knowledge and to develop methodologies that can stimulate the creative potential of the student. For this to happen, this audience needs to be placed at the center of the discussions, in order to have a clear understanding of its characteristics, as they have undergone changes over the last few years. Today's students were born in a digital world, unlike their predecessors, and live in an era where experience is critical to the success of any product and service and needs to be considered in the new format intended for teaching.

This article, a bibliographic research, has been organized into three parts plus the final considerations. The first part covers a general picture of the current education situation and discussions on the necessary advances for the changes required in the new economic scenario. In the second part, characteristics of the new student, the Digital Natives, and the consequences they brought about. Finally, in the third part, the importance of the user-centered experience and the use of technology for the Natives.

EDUCATIONAL CONTEXT

The market is undergoing a restructuring with new forms of production and consumption organization and has been characterized more by the logic of innovation than by reproduction, demanding an increase in the number of professionals with creative and innovative

characteristics. Education, the main means to qualify and prepare human capital, becomes a central point in this transformation. However, the educational model we knew began in 1863 in Hungary during the Industrial Revolution, and the economic scenario of that time is accountable for the current model. With the industries then demanding large numbers of employees, where work was 80% manual and 20% administrative or specialized, teaching should be useful and pragmatic and intended to prepare students to be competent and productive industrial workers. As a result, classrooms were transformed into environments corresponding to factories, students would "be" machines, obeying commands, learning by repetition and acting efficiently and teachers would act similarly to the foremen, assigning standardized tasks that they asked predefined responses in a certain time interval (PERESTROIKA, 2015; RIFKIN, 2015). Although being another moment in history, with different context and other purposes, the model remained practically untouched and without major changes.

As a result, education is now undergoing a crisis. Part of this arises, according to Oliveira (2010) and Robinson (2005), from an imbalance in the academic curriculum, from the constant "content dumping," from the emphasis on certain disciplines to the detriment of others, from the adoption of non-stimulating procedures for autonomy thinking and acting, from the lack of stimulation of experiences capable of promoting the development of creativity in all areas of knowledge and from teaching methodologies that fail to encourage the creative potential of the student. Becker (2015) criticizes the hierarchical academic relations and compares them with those of master-slave or boss-worker. He argues that teachers and administrators believe in stimulating the student with awards, but that these serve only to teach the practice of getting good grades instead of having an interest in the subjects being studied. As a result, students try to figure out what they are expected to do to get good grades, they learn it, and only do it. Rifkin (2015) corroborates the thinking quoted so far by exemplifying that questioning the authority of a teacher is seen as prohibited and sharing information and ideas among students is labeled cheating. Ritchhart (2015) adds that there is no place for dialogue and conversation and that there is an incentive for the student to be fast, as this theoretically makes them smarter, as well as to do the job only once, as best as possible, without revising or rewriting, as Becker (2015) argues. All these points will influence the students' experience and shape how they see the learning, that is, in a distorted

way.

The points referred to above will result in some other themes that recur when discussing education: schools are boring, the process encourages the memorization and repetition of facts, not requiring the student to exercise their thinking, as well as strongly stimulating competition. In relation to the former, Prensky (2001c) argues that it need not be so, as many believe. He argues that if it is boring, it is entirely the fault of the educators and there is no blaming another person, especially the students, as it would be like a doctor blaming a patient for getting sick. While agreeing that students do actions that will contribute to the situation, such as playing video games, he reiterates that they are only living in the world in which they were born and having attitudes consistent with their time. To his mind, the main point is that educators have not been able to gain the interest of their students, even under duress, and need to change their habits, preferences and needs to interact with learners, since they grew up in a different era. Henklain & Carmo (2013) agree and argue that "motivation is not intrinsic to the student; it depends on environmental variables such as the type of task proposed by the teacher, the consequences that the student produces with the accomplishment of the task, the clarity of the task or the instructions for its accomplishment, etc. "

That point is extremely important because teachers are responsible for the success of schools and for teaching to be a creative profession and not a delivery system. They are not only there to pass on the information received, but also to guide, stimulate, provoke and engage (Robinson, 2013). They should be encouraged, according to Lévy (1999, p. 158), "to become an animator of the collective intelligence of their student groups rather than a direct provider of knowledge." Education is about learning and if this does not happen, there is no education (ROBINSON, 2013).

Robinson (2006) exemplifies another issue that needs to be reviewed in the current model. He explains that the entire educational system on the planet has the same hierarchy of disciplines: at the top are mathematics and languages, then the humanities and finally the arts. The explanation for this is that the system is based on the idea of academic ability, since it is designed to meet the demand of industrialization. Therefore, the hierarchy is propped by two ideas: the most useful subjects for the work come on top and the academic aptitude related to

the process of entering the university. As a result, many highly talented, bright and creative people think they don't fit, because what they were good at school was not valued or even stigmatized. One of the reasons why this continues to happen is that some people resist new forms of education because they think they are concerned about helping others get a job, arguing that more creative forms of education and human development are luxuries that are not in line with reality to find a job these days. However, they are wrong, since the market is increasingly demanding the opposite of what they think. In a survey that included four hundred companies in the United States, employees were asked to rank the skills they most sought in terms of potential candidates on a list that included both academic and soft skills. Soft skills, such as professionalism, work ethic, collaboration, communication, ethics, social responsibility, critical thinking and problem solving were more to the top than traditional academic skills (RITCHHART, 2015).

In Brazil, the topic education needs special attention and the data prove this. The Index of Basic Education Development (Ideb - Índice de Desenvolvimento da Educação Básica) is the main performance index in the Brazilian basic education. It evaluates the quality of schools and education networks by combining school pass rate with student performance and uses the results of two official exams, Saeb and Prova Brasil. Such exams are applied every two years in the 5th and 9th grade of basic education and in the 3rd grade high school in order to evaluate student's proficiency in Portuguese and mathematics in all public schools with at least 20 students enrolled and by sampling in high school, both public and private (INEP, 2016). Monitored by the Todos Pela Educação (All for Education) movement, the index published in 2015 pointed to a stagnation and regression in the learning of Mathematics and Portuguese in the 3rd grade high school. The percentage of students with adequate learning in Portuguese was 27.5%, virtually the equivalent to that of 2013 (27.2%). As for mathematics, only 7.3% of students reach satisfactory learning levels. If we consider only public schools, the rate drops to 3.6% (TODOS PELA EDUCAÇÃO, 2017).

Based on data from Ideb 2015, the Ayrton Senna Institute foresees that, at the current pace, Brazil can take decades to achieve the education goals set for 2021 by the PNE. Despite the increase above that predicted in the stage from 1st to 5th grade (initial stage of the

elementary school), the 6th to 9th grade (final years of the elementary) the progress is slow and will probably only reach the goal in 2027. In high school, the issue is even more serious as the index has been stagnated for four years at the level of 3.7, whilst the level set for 2021 is 5.2. If the current trend is maintained, the country will score only 3.9, far from what it should, and may take decades to reach that goal (IDOETA, 2016).

International research and reports have also detected the precarious situation of Brazilian education. The latest Brazil's results in the International Student Assessment Program (Pisa), published in December 2016, show a decrease in scores in the three areas evaluated - science, reading and mathematics -, reflecting a drop in the world ranking, 63rd place in science, 59th in reading and 66th in mathematics (OECD, 2015).

This need for change has already been realized by a number of people involved in the academic process, but it is still not enough. According to Frenchman Edgar Morin, in a lecture delivered during the international meeting Education 360 in 2014, teachers are getting stuck in their own disciplines, without exchanging with teachers from other areas, which causes an exacerbated individualism. He advocates encouraging solidarity and the integration of knowledge, thereby facilitating the understanding of the new and the dissemination of experiences (VIEIRA, 2014). Dixon (2000 *apud* TEIXEIRA, 2014) agrees, and adds that if people begin to share ideas and realize the importance of this process, sharing itself will create the culture of learning. In addition, the then Secretary of Education of Santa Catarina, Eduardo Deschamps, said that teachers need to see who the student is today so that expectations of teaching can be adjusted. He argues that teachers should ask questions in a different way in order to stimulate new thinking and innovative responses and to place the student as the main character in the teaching and learning process (KALENA, 2014). When teachers listen to their students, they give a message that students' thoughts and ideas are valuable and relevant, that they are part of a conversation and that they can really trust to be heard (RITCHHART, 2015).

Education must be the driving force for development, assuming responsibility and contributing to the formation of new citizens in the contemporary world, using

creativity to stimulate classes and encourage solutions. Robinson (2005) points out that traditional education must be changed to become a creative teaching, awakening and nurturing the potential inherent in all people and not only in artists and scientists, as it is mistakenly thought by a large part of the population. There is also a need to re-evaluate the relationship of such areas in the educational experience that are segregated today, building new learning structures aimed at a different future so as not to receive the challenges of the 21st century with the educational ideologies of the 19th century. Promoting creativity among all occupations, economic classes and ethnic origins is essential for the common good, since creativity is critical to the economy in general and is fundamental to the global technology based economy in particular (ARAYA, 2010). You have to be free to learn, to create, to take risks, to fail or ask questions, to strive, to grow; and the ideal scenario for this to occur is a creative environment. Demo (2002, p. 359) reinforces by saying that "correct learning is the political reconstructive, which puts the student as the focus of attention, making them research and create, not just listen to classes, take notes and write tests." Oliveira (2010, p. 8) states that:

[...] traditional teaching needs to be changed to become creative teaching, that teachers will use strategies that enable them to develop their creative potential in their classes, leading students to know how to deal with challenges and unforeseen events in today's world. But it is not enough that the teacher will encourage creativity, it is necessary that all the school context adopt creative attitudes and incentive (OLIVEIRA, 2010, p.8).

Students have to be understood through their habits, customs, interests, so that they can be involved in a correct, creative and stimulating manner within the classrooms, that they have the greatest interest during the long educational journey and are ready for the new scenario of the world economy. For this reason, Araya (2010) argues that students should become agents of their own learning paths and schools and universities should support this path with new modes of knowledge and learning capable of facilitating creativity in the context of collective intelligence. Lévy (1999, p.

158) believes "in a new style of pedagogy, which will at the same time favor personalized learning and collective network learning", as individuals today condescend less and less with courses that fail to meet their real needs, the specificity of their path in life and that follow uniform or rigid paths . Just

as they expect that the technologies will adapt to their needs and will not force them to change, the expectation regarding education is the same (ROBERTS, 2005).

The demand for change and the renewal of education, despite having already been perceived by a portion of the people, still needs the commitment of all to generate significant results and this has to be done urgently, since the economy has been undergoing constant changes and demanding a non-specific professional profile that is stimulated in the current classrooms. Therefore, new methodologies capable of stimulating creativity, innovation, thinking and doing of the new students, besides placing them at the center of the process, is fundamental.

NATIVE AND DIGITAL IMMIGRANTS

Students, who are central to the discussion of a new education, have changed their characteristics in recent years, no longer being the same as when the current educational system was created. Today's students are called by American researcher Marc Prensky (2001) Digital Natives and are natural speakers of the digital language of computers, video games, mobile phones and the Internet. They were born and raised surrounded by these new technologies and so they think, process information and communicate fundamentally different from their predecessors (PRENSKY, 2001; GARDNER & DAVIS, 2013). For Lemos (2009, p. 39), "they are part of the first generation almost totally immersed in technology, in the most effective McLuhanian thesis that the media are extensions of man." They prefer visual information to textual, short to long stretches, complete multiple tasks simultaneously, have the ability to shift their attention from one theme to another easily, prefer games to "serious" work, and need quick rewards, to mention just a few of the various features that differentiate the current generation from the former (OBLINGER & OBLINGER, 2005; PRENSKY, 2001).

Eight characteristics, or standards, describe a typical individual of the Digital Generation and differentiate them from their parents, the boomers. They cherish freedom and freedom of choice. They wish to personalize things by taking ownership. They are natural contributors who enjoy a conversation, not a lecture. They will thoroughly analyze you and your company. They insist on integrity. They want to have fun, even at work or at school. Speed is something normal. Innovation is part of life (TAPSCOTT, 2009, p. 6).

In that scenario, one of the favorite activities of this public, and which are growing

every day, is the use of new technologies, such as social networks, blogs and Youtube, to express themselves creatively, allowing their voices to be heard, their stories are told as never before in history and that new friendships are made around common interests (GARDNER & DAVIS, 2013; RITCHHART, 2015; LEMOS, 2009). Lévy

(1999) believes that cyberspace has provided new possibilities for distributed collective creation, cooperative learning, and network collaboration. He argues that such collective intelligence processes will develop the appropriation by individuals and groups of technical changes and will reduce the exclusion effects resulting from the acceleration of the techno-social movement.

Contrary to this scenario, according to Prensky (2001), there is another part of the public referred to as Digital Immigrants. These are people who were not born in the digital world, but became fascinated by the subject or were forced to do so by the massive presence of new technologies in their day to day life, adopting much of them for their life. Like any immigrant, they learn to adapt to the new environment in which they are inserted, but always maintaining a certain "accent", connecting with their past, which can have serious consequences.

Through a literature review it is possible to conclude that "digital immigrants" should be understood as all individuals who were born in an environment without access to and without the mass use of the media, the computer and the internet (and all derivative applications) , and for that reason they had to adapt to an environment, instruments, techniques and processes different from those that were the basis of their education and development. Thus, it seems that the expressions "digital native and digital immigrants" serve only to distinguish educational context (s) with natural consequences in the way each relates to the environment. In essence, man is and remains the same, responds only to his own brain biology, that is, adapts to the medium to optimize behaviors and survive as easily as possible. In this sense, the so-called "digital immigrants" include all those who, having grown up in an analogical culture, have adapted to the digital culture thanks to the neuronal plasticity that allows the adaptive and evolutionary behavior that human beings present throughout their lives (SILVEIRA, 2014, p.19).

According to Prensky (2001, p. 2), the major problem of education today is that "Digital Immigrant teachers, those who speak an outdated language (from the pre-digital era), are struggling to teach a population that speaks one completely new language, "with characteristics and skills that are often not well received by them. However, since those who choose the teaching methodology are the Immigrants, there is a gap that needs to be filled.

Martins & Giraffa (2008, p. 3632), argue that "the form of work of the Immigrant teacher differs greatly from the way in which his students perceive knowledge and the production thereof." In this context, they need an adaptation to be able to connect with their digital students, since, according to Lemos (2009), teachers working with this generation usually comment on how difficult it is to teach and students report dissatisfaction and boredom with the sameness of the everyday of the classroom, creating a communication problem that hinders teaching and learning. The fact that teachers are unable to learn while listening to music, watching TV or playing a game does not mean that their students will not be able to either. They also cannot assume that the methods employed in their school days will still work just because they worked with them (PRENSKY, 2001).

[...] we can think of the need for the teacher to turn reflexively to his / her school practices and to problematize them. Dubet (1997) suggests that the school should recreate a normative framework in a democratic way, which will define the rights and duties involving the whole school community. The adult generation that make up the school community, however, still insists on the traditional model, seeking to standardize the bodies, to hierarchize knowledge, to homogenize the subjects, thus losing the opportunity to establish, through the school practices, interaction relations between the generations. However, there is clear evidence that teacher authority is changing through the strategies imposed by the youth themselves, who continually challenge it (TOMAZETTI & SCHLICKMANN, 2016, p. 337).

Do Digital Natives really exist and think differently? Prensky (2001b) states that there is neurobiological evidence that different forms of stimuli will alter the structure of the brain, affect how one thinks and they will endure throughout one's life. According to the social psychology, Prensky (2001b) goes on, there is strong evidence that a human being's thinking pattern will change depending on their life experience, and the culture in which they've been inserted will interfere not only with what they think, but in the form of thinking, which is different. In addition, studies on brain plasticity - a concept that states that the brain cell supply is replenished constantly throughout life - have concluded that the brain does not rearrange itself randomly, but requires a hard work of sensory stimulation and focused attention. According to the *Scientific Learning's Fast ForWord* program, for the desired changes to occur in a student, they will need to spend 100 minutes a day, 5 days a week, for 5 to 10 weeks with their attention focused on a goal. Ever since the inception of the Pong game in 1974, young people have been spending time with video games, changing the paradigm advocated by many (PRENSKY, 2001b).

They have been adapting or programming their brains for speed, interactivity and other factors found in games just like the boomers' brains were programmed to accommodate the television and the brains of literate men were reprogrammed to deal with the invention of written language and reading. (PRENSKY, 2001b, p.3).

For Prensky (2001c), this is the important and interesting point in the issue, since when humans discovered how to re-train their brains for reading, they had to re-train again, but for television. And now, everything is changing again, with young people today having to re-train their brains into new ways of thinking, many of which are totally contrary to the old ways of thinking, causing one of the main tensions in education.

These characteristics eventually lead to another common co-related discussion, the lack of attention of the Digital Natives. However, the discussion is inadequate from the outset with the statement that they cannot pay attention to a particular subject or situation for a long time. With games, music and the Internet, for example, the focus is great and distraction is poor. The truth is that the Natives need interactive experiences and constant feedback, which does not occur in the current educational model, causing them to choose not to pay attention and not to be an inherent characteristic of that audience (PRENSKY, 2001b).

For Peter Moore (1997 *apud* Prensky, 2001b), this issue must be considered as a matter of urgency since, he said, the linear thinking that is dominant in classrooms can be detrimental and slow down the learning of people who have brains developed from games and from surfing the internet. Demo (2002, p. 357) also believes in non-linear learning and gives as an example children who "quickly learn a foreign language when they play with others on an everyday basis, without having any sense of logic, grammar, systematic study, etc."

From this perspective, it seems to be correct to say that Digital Immigrants must adapt to the current context of the Natives. Prensky (2001) believes that however much they wish, it is highly unlikely that students will go back and begin to think in the "old fashion," perhaps even impossible, considering that their brains may already be different from their predecessors' brains. A smart immigrant teacher will accept the current situation, that they do not fully know this new world and takes advantage of children and young people

to refresh themselves, learn and integrate, gaining students' confidence and changing the passive-dependent pattern of student and teacher interaction and stimulating student-student interaction for the benefit of learning (PRENSKY, 2001; RITCHHART, 2015).

Just as in today's world, where everything changes steadily and very quickly, teachers need to grasp the essence of teaching and their methodologies and adapt them to a language and style that will captivate and catch the attention of the young. For this to happen effectively, it is important to understand the habits, desires and needs of your students and, especially, their relationship with technology, which only increases. If they are not the center and focus of education, then the current scenario will hardly change.

THE STUDENT'S EXPERIENCE

The word experience has gained significant momentum over the last 20/25 years. Beginning with the integration of the term user experience in the software industry and later extended to the work of marketers, the idea of an area of business focused on experience is alive and growing every day.

Pine II & Gilmore (1998) explain this phenomenon. As services, as well as goods before them, increasingly become commodities, experiences emerged as the next step in the so-called progression of economic value. In addition, new technologies have particularly encouraged new forms of experience, such as interactive games, online chats, virtual simulators and virtual reality.

But what user experience is? Garrett (2011, p.17) states that it consists of considering the user at every step of the development of a product or service, splitting it into its elements and looking at it from various perspectives so as to ensure that all the ramifications of user's decisions are known, think how it works on the outside, where a person comes in contact with it, and then improve efficiency. "The practice of creating engaging, friendly user experiences is called user-centered design. The concept of user-centered design is very simple: take the user into account at every step of the way as you develop your product".

Experience must meet a person's needs and it can make a difference

between something successful and failure. If it is bad, the user may never return, or, as in the case of schools, they return, but are unmotivated, uninterested, and only as an obligation. However, if it is good, it becomes an excellent loyalty factor. For this reason, according to Eason (1995 *apud* TEIXEIRA, 2014), it is not enough to do for the user, it is necessary to do with the user, considering that they have purposes, ambitions, beliefs, emotions, values, satisfactions and dissatisfactions. Suri (2004 *apud* TEIXEIRA, 2014) complements and states that their habits should be better understood, which requires more knowledge about activities, mental work, their feelings, their aspirations and desires, and the values related to their goals in using products - where products, here, should be understood as education. This is because habits shape our lives and virtually everything we do can be associated with routines that have been established, among them studying.

Garrett (2011) explains that when the user is browsing a website, for example, something funny happens at the very moment a problem occurs: people blame themselves for it. They feel that they have done something wrong, that they were not paying enough attention, they feel stupid. This is irrational, since it's not their fault that the website fails to work as expected. The problem is that, because of this feeling of frustration, the user will give up the product and will hardly ever use it again. Something similar happens to the student in relation to teaching and the classroom. They get frustrated by various situations over which they have no control, but they end up often blaming themselves. This moves them farther and farther from the school, creating barriers, harming their experience, as well as minimizing pleasure, enchantment and fun, fundamental points to stimulate interaction which are directly related to the user's emotional.

According to Teixeira (2014, p. 96), the emotional benefits are linked to such products that will affect the temperament of its users, i.e., "the use of a product can be exciting, interesting, fun, satisfying or stimulating, and can have as a possible result the increase of user's confidence". On the other hand, as Norman (2008, p. 100) explains, "negative emotions manifest when there is lack of understanding, when people feel frustrated and out of control - first restlessness, then irritation and, if lack of control and understanding persists, even anger".

Enchantment, pleasure, and the fun of interacting are key issues in bringing about that positive and satisfying experience. Moreover, it is still possible to state

that the use experience is directly related to perceived benefits. And they can spur exploration and learning when the challenges presented in the product interface are compatible with users' abilities. However, if the setting is not correct, users tend not to interact with these products (TEIXEIRA, 2014, p. 100).

Drawing a parallel between Teixeira's earlier quotation (2014) and the classrooms, it seems that the Digital Natives have lost their enchantment and the pleasure of being in the classrooms. If the experience has not been good and the perceived benefits are few, they feel discouraged and do not want to interact any more. It is of utmost importance and urgency for teachers and educational centers to create devices and strategies to turn this game around, with student-teacher interaction being the primary factor of change.

And how can this be done? While there is no obvious similarity between Silicon Valley startups and a school, a closer look at some of the technology industry's tenets can bring benefits and be key to the future of education. The term user's experience is constantly used in this environment, being a benchmark to measure the success of a product or service and is a priority for companies that wish to be successful, considering that if the user has a bad experience, the user will hardly have a relationship with that experience. The value of experience has been so great that it has extrapolated the technology sector, and many companies in other industries are creating teams that constantly seek to understand the needs of their customers and redesign services when necessary. In this way, education can also benefit from this principle and focus on the user's experience, that is, the student, to transform a system that has not undergone significant changes for decades.

A Porvir ([201-?]) believes in this vision of listening and understanding the student and says that even the most difficult problems need to be discussed by the school community both as much as necessary to be solved, and in such a way that they will not become something bigger, compromising the relationships of trust between managers, teachers and students, in addition to increasing the level of dissatisfaction of the latter.

Listening to students means creating an opportunity for them to share opinions on different topics, from the most mundane, such as school infrastructure and classroom activities, to more complex ones, such as changes in curriculum and school organization. In order to engage students, such consultations need to be carried out with the support of dynamics, instruments, and languages that are understandable and stimulating to them. They also have to be inclusive, in order to capture the multiple voices, even the quietest and most dissonant voices. In this case, the opinion of the most "behaved, extroverted and eloquent" students should not

override the opinion of the most "rebellious, shy or difficult to express". All the possibilities have to be considered (PORVIR, [201-?]).

Marjo Kyllönen, Secretary of Basic Education, Helsinki, Finland (country that is a world reference in education), believes in the empowerment and engagement of all as the core values of education in the country and explains that the most recent curriculum review (beginning in 2012 and in the process of implementation) was initiated based on listening to various audiences: educators, parents, students and system administrators. Parents, for example, were asked what the objectives of education should be. The students, in turn, answered questions such as "How do you learn best?", "What are your dreams for the school of the future?" And "How do you see technology?". All information gathered was analyzed and considered in the construction of the new curriculum (KRAUSE, 2017).

Prensky (1999) agrees with the concepts discussed so far and argues that it is necessary to create teaching methodologies that are aligned with the characteristics of the Digital Natives - the current audience in the classrooms - and for that, it is necessary that they help guide this process, especially for, as argued by Tomazetti & Schlickmann (2016, p. 334), they "bring to school their own languages and cultures, becoming actors, active subjects in the construction of the way of being in the school space and not just content receivers for memorization purposes." However, although there is some openness, "the school still persists in the ignorance of the youth world and its cultures, which are fundamental factors in the process of incorporating young students into the school environment" (TOMAZETTI & SCHLICKMANN, 2016, p. 337). It is vital that education will provide opportunities for young people to convey their own ideas, values and feelings (NACCCE, 1999).

This is relevant because, for learning to take place, Henklain & Carmo (2013) state that it is necessary to know as much as possible about students, such as their academic repertoire and social interaction, what they like and that can be used as a reinforcer, the social context in which they are inserted and which problem situations are expected to be solved, among others. They also believe that it is not enough to know them only at the beginning of the school term, but rather to record and monitor their development throughout the teaching process. This is relevant because this information will assist in planning the material and the reinforcement contingencies. In addition, the focus of the teacher should be directed by the needs of each student and not by the average of the majority, considering that "one person

will interpret an experience on many levels, but what pleases one may not please another” (NORMAN, 2008, p.56).

The practice of putting the student in the center and designing engaging, stimulating, interactive and challenging experiences that take into account their habits, characteristics, desires and needs is what the author of this article believes will transform education. For this, the role of educators is to have prior knowledge of who the end-user is, to bring them closer to the process, and to adapt teaching on the basis of this information.

FINAL CONSIDERATIONS

As the Creative Economy advances, the job market demands more and more people capable of facing the many challenges that are posed daily, who know how to innovate, act quickly, creatively and competently. Accordingly, creativity is more than ever necessary, and it is essential to awaken the creative potential of man, to focus on the student's experience, to stimulate the generation of new, creative and benevolent ideas for mankind. For this to take place effectively, education needs to be modified to give freedom to learn, to create, to take risks, to fail or ask questions, to strive, to grow; and the ideal scenario for this to occur is a creative environment. Besides, there is a need to find ways to stimulate and capture the attention of Digital Natives, a growing public who is increasingly disinterested in the classroom, and greater integration with existing technologies is a good strategy, since they are decoys for these students.

As much as the new technologies play a crucial role for the Natives, teachers continue to play their relevant role, but there are changes to be made. Robinson (2013) says that teachers are the blood that brings life to the success of schools and teaching is a creative profession and not a delivery system. They are not only there to pass on the information received, but also to guide, stimulate, provoke and engage. Education is about learning and if it does not happen, there is no education. The main point in education is to make people learn.

With the speed of the emergence and renewal of knowledge, information and technologies and the need to integrate these elements with the academic environment, families, policy makers, school heads and, in particular,

teachers should be able to understand how technology can be used more effectively to improve the learning of Digital Natives and to take advantage of the opportunities that society and the knowledge economy offer them. And we come to the conclusion that this can only be done with a continuous transformation of teaching, always focused on the needs of the students.

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