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Artículos Centíficos

El desarrollo del neoaprendizaje de los jóvenes estudiantes Nousmedi@ en su trayecto educativo hacia la formación profesional

The Development of Neolearning of the Nousmedi@ Student Youth in Their Educational Path Towards Professional Training

O desenvolvimento do neo-aprendizado de jovens estudantes Nousmedi @ em sua jornada educacional em direção à formação profissional

Cirila Banda Luna Universidad Pedagógica Nacional, Unidad 021, México balucir@hotmail.com https://orcid.org/0000-0002-9269-5043

Resumen

Tomando en cuenta el concepto de neoaprendizaje, el cual explica cómo aprenden las nuevas generaciones cuando interactúan en los medios digitales, y abre el camino para reconceptualizar el aprendizaje de los estudiantes con hábitos de estudio de carácter cibernético orientado a las búsquedas virtuales, se emprendió un proceso exploratorio de 344 alumnos de sexto de primaria en el año 2007. De este grupo de estudiantes observados en la fecha ya indicada, 97 se identificaron como *Nousmedi*@: sujetos con rasgos característicos del aprendizaje de inicios del siglo XXI. Después de 10 años, se buscó en diversas universidades y departamentos de educación a los 97 alumnos, ahora jóvenes profesionales, hasta lograr localizar a algunos de ellos en el grado o carrera que estuvieran desempeñando. Esto para conocer sus opiniones y experiencias en su trayecto educativo hacia el nivel profesional. Si bien se identificaron a 66 de los 97, solo se pudo entrevistar a nueve de ellos. Por un lado, sus respuestas manifiestan cómo la situación educativa continúa hoy en día tan





cuestionable en el manejo y uso de los medios digitales con prácticas de enseñanza que aletargan el aprendizaje. Y por el otro, se puede observar cómo la utilización cada vez más avanzada de los recursos cibernéticos en un sentido autoformativo posibilita una mejor situación profesional o laboral.

Palabras clave: enseñanza, formación de docentes, neoaprendizaje, Nousmedi@.

Abstract

Taking into account the concept of neolearning, which explains how new generations learn when they interact in digital media, and which opens the way to reconceptualize the learning of students with cybernetic study habits oriented to virtual searches, an exploratory process of 344 students in sixth grade was carried out in 2007. Of this group of students observed on the date already indicated, 97 identified themselves as *Nousmedi*@: subjects with characteristic features of early 21st century learning. After 10 years, 97 students, now young professionals, were searched in various universities and education departments until some of them were found in the degree or career they were performing. This to know their opinions and experiences in their educational journey towards the professional level. Although 66 of the 97 were identified, only nine of them could be interviewed. On the one hand, their responses show how the educational situation continues today so questionable in the other, it can be seen how the increasingly advanced use of cyber resources in an autoformative sense enables a better professional or work situation.

Keywords: teaching, teacher education, neolearning, Nousmedi@.



Resumo

Levando em conta o conceito de neo-aprendizagem, que explica como as novas gerações aprendem quando interagem nas mídias digitais, e abre caminho para reconceitualizar a aprendizagem dos alunos com hábitos de estudo cibernético orientados para pesquisas virtuais, realizamos um processo exploratório de 344 alunos da sexta série em 2007. Desse grupo de alunos observado na data já indicada, 97 se identificaram como Nousmedi @: sujeitos com características características da aprendizagem do início do século XXI. Após 10 anos, 97 estudantes, agora jovens profissionais, foram revistados em várias universidades e departamentos de educação até conseguirem localizar alguns deles no grau ou na carreira que estavam realizando. Isso para saber suas opiniões e experiências em sua jornada educacional em direção ao nível profissional. Embora 66 dos 97 tenham sido identificados, apenas nove deles puderam ser entrevistados. Por um lado, suas respostas mostram como a situação educacional continua hoje tão questionável no gerenciamento e uso da mídia digital com práticas de ensino que permitem aprender. Por outro lado, pode-se ver como o uso cada vez mais avançado dos recursos cibernéticos em um sentido autoformativo permite uma melhor situação profissional ou de trabalho.

Palavras-chave: ensino, formação de professores, neo-aprendizagem, Nousmedi@.

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Introduction

The inaccessible case of education, due to its state of permanent crisis in the face of technological advances, and because information and communication are within the reach of new generations, has challenged educational institutions, such as school, family, hospitals and religions, and has left educational control unstable. The evidence of this is in the problems that arise in the formal, and in the formation for life, between parents and children, teachers and students, doctors and patients, churches and parishioners. It is observed in the relationships that are broken, when the encounter between the two is from the "obligatory" or the "must be" with authoritarian arguments, that this authoritarianism or extreme liberation drives the person away from himself, whether due to discomfort, devaluation or escape



strategy, which is more evident in the school-family relationship, as mentioned by Quinta (1993). Then, without reflecting, they are left out of external influences in the digital world.

In this analysis, students are the center of educational concern; they reflect in their forms of study an insufficient formation in values, the forgetfulness of the care of a healthy body or in the dispersion of their behaviors by the indifference, isolation and disintegration of related groups; in short, the way in which they are being little moldable educationally. Young people find in their path having to "understand what is changing and what has already changed a lot, which is nothing other than the territory itself" where they function daily (Benasayag, 2015, p. 31). In most cases, what they apprehend virtually through computers, cell phones, electronic tablets, among other devices, is not linked to tangible life, as adults expect. Hence, between them they form interactive and fleeting relationships without consolidating specific groups, so they are not appreciated in community to identify themselves in their new features and complicate their socio-educational orientation before the teaching gaze.

In this complexity that consumes the school today, the dissolution of the teaching scheme as a transmission of knowledge in the classroom against the interactive world that technology has generated, because the student has more information to surf the Internet more number of hours that the teacher, learning has been limited to basic textbooks or materials known for teaching, and therefore, the construction of meanings remains unfinished. For this, it is necessary to solve this pedagogical problem and make a guideline to relocate the act of studying, the strategy of articulating, resolving this tension between what is in the Network and what they must learn and is indicated in the school curriculum.

The teaching strategy that is central here is to recognize the characteristics of this new generation Nousmedi @, understanding the ability of its members to create new logics of school content analysis and their training for life, building them with them, not aligning their perception of reality Task that becomes a premise for educators: know what to do with the diversity of information that young people present in class and identify their contribution to new explanations of content. Mainly, consider the students and all the information they apprehend extraclass and their academic potential. Also learn other ways to attract interest and attention to the content of analysis, without bordering the student to move away and





demotivate it with discipline and rather, address and integrate their actions into digital devices. In this regard, Benasayag (2015) underlines the following:

When one feels that a video game or a communication (in general, compulsive and useless) requires their attention, we are talking about an attention that is symmetrically contrary to what we need, for example, for studies or any other form of complex thinking. These mechanisms work on a series of fast loops, which gradually hinder the possibility of practices that require other types of temporality and attention. The distraction circuits articulate (too) well with the dopamine reward circuits, creating from this dependence (which is not exactly the same as an addiction) and chemical failure states, as in any other molecular dependence (p. 96).

When recognizing that you have in front of a subject with a distance between his thinking and his world, between himself and what happens in the classrooms, it is necessary to identify what catches the thought and the restlessness or passivity, take it from an information to another to give it life through school content that arouses the reflection of thinking about the authentic world. In accordance with Freire (1997):

Respecting the student's world reading means taking it as a starting point for the understanding of the role of curiosity, in a general way, and of the human, in a special way, as one of the formative impulses of knowledge production (p. 117).

It is placed as responsible for the role of educating and training your student, son, patient or parishioner, in the attention to what he perceives directly and what will give more sense to the real over the virtual.

Young generations, who are appropriating affinities that arise from the networks that are articulated through the search, where the interests may be the same, but virtual navigation have different addresses, are identified with the fact that "personalization is a basic strategy of the five main Internet giants — Yahoo, Google, Facebook, YouTube and Microsoft Live— "(Pariser, 2017, p. 17), known as search engines in digital networks with registered brands. In the bubble of the personalized filters of each Internet user, attention is made to click on the ads related to the articles that were previously searched and that are combined according to the topics also explored in the interface, a situation that escapes the cultural



understanding of the adults, so it becomes essential to intervene in this digital world or transform our educational paradigm as educators.

The antecedent of this work is the search for the conceptualization of the aforementioned Nousmedi @ generation. This antecedent began as an exploratory investigation in the years 2006-2008, carried out by Banda (2013), one of the first efforts to approach this problem. However, regarding these subjects observed at that time, population for convenience, who were children of sixth grade and are currently young, today the following questions arise: What has been the progress of the 97 students identified in 2008 in their school trip? Are they in university degree, graduates with professional training or failed to continue their studies? Above all, because they have been influenced from what for Aronowitz, Martinsons and Menser (1998) is known as technoscience and cyberculture, no doubt little reflected in the classroom. Now this world is part of a reality in which they operate, having as accessible references what they find on the Internet outside the adult world, who is busy.

We start from the premise that the Nousmedi @ generation learns from its virtual interaction, what we call neo-learning. This is recognized as the meeting between the diverse and agreed contents that they previously share in virtual networks and lead to school activities verbally, in print or in learning objects that they themselves agree with and, thus, facilitate classroom teaching , if allowed by the teacher. The school, as an educational space where the student appears with a growing number of digital tools, needs access to the integration of the use of devices that drive cognitive, socio-emotional and technocultural development. In that sense, the contributions of Benasayag (2017) are valuable, because it explains how, when arriving at the classroom, the student needs to feel in his body the "increased brain", which develops and learns to make possible decisions about the power of the new extracted from the virtual world, where it seems that everything is accessible, unless they run into a reality structured differently than they imagine.

Against the above, the following question is unavoidable: What do you want to be when you are adults? The risk of getting caught in a virtual illusion is high, so it is necessary to bring them from that plane to the real and objective situation.

Young people face networks in a natural and everyday way without thinking about their functionality; there they are inserted through the search, which leads them to subtract when the click is activated so that the search engines identify ideas, as Pariser (2017) affirms, who



calls this process personalization, where the marketing and the greats of the Internet are "Predisposed to support our own ideas. Your computer screen is increasingly a kind of oneway mirror that reflects your own interests, while algorithm analysts observe everything you click on "(p. 13). It is essential that the school master this type of information aimed at any cybernaut, including students, who are involved with the use of their data and interests for information with virtual companies, which are dedicated to hunting the search grounds for then become safe offers related to what the Internet user has previously found or has the same meaning. It is also demanding to analyze the Nousmedi @ generation as a pedagogical concept, which allows to critically partition what they bring as a reference to the classrooms to give them a formative content regarding what the school curriculum demands, since it is an inevitable reality.

In this context, it is proposed to consider teaching from three pedagogical approaches that permeate the school world to reorient school paths, and thus the subjects perceive themselves as they build their present-future meaning. The approaches are as follows:

- First, considering it unworthy to forget the task of educating in different areas of society such as family, religion, school, etc., by not doing educational synergy to reflect, criticize and transform with them everything that afflicts being human in their social environment that is forgotten. For Freire (2012) "the world is not necessarily this or that, because human beings are projects and at the same time we can have projects for the world" (p 47). On the other hand, Han (2014, p. 14) mentions that "digital indignation cannot be sung" recognizes it as an affective state that does not develop any force that generates some power of action, although contact is frequent through networks social, the relationship is defined, it is not possible to develop any powerful force that moves their consciences. And not forming solid groups with critical ideologies generates gravitation, so it does not engender any future, since a digital swarm is formed without its own profile. To warn the place of young people in the movement of life and the formative experience, where indignation cannot place subjects in social responsibility and commitment, is the treatment or attention strategy to reorient or guide the educational act.
- Secondly, there is the idea of locating everyday life as the place where pedagogy makes sense, since the human condition inexorably passes through it. Here the



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concepts of ecopedagogy or pedagogy of the earth resonate, understood by Gadotti (2002) as having to re-educate the gaze of people in the challenge since their first school years, which implies a complete change in the way of thinking about quality of life and the environment, especially in the type of formative coexistence with ourselves, with others in the natural environment. This is how ecopedagogy enters the scene, in a different way than when it is alienated in cultural terms, from everyday life in a process that gives meaning to things opening to new paths, with an authentic life of self-control not being foreign of itself, but in the experience of reality, in the care of oneself.

It is face-to-face education, and in its absence by virtual means, where the task has been forgotten, the abandonment of following up and accompanying the formative paths of the students in the loving bond with the earth, that world where they breathe, feel, listen, look and express in the daily occurrence with others, being part of yourself, the real and thinking subject to see the deterioration. Re-educate and educate is an act of transcending the uneducable, broadening the pedagogical view towards planetary citizenship, and not only personally, as indicated in the curriculum and the proposed reform of educational policy, a document that supposes, in its goal 4.4: "by 2030, substantially increase the number of young people and adults who have the necessary skills, in particular technical and professional, to access employment, teaching work and entrepreneurship," disseminated by the United Nations Organization to Education, Science and Culture [Unesco] (2015, p. 9). However, for Gadotti (2002), he focuses on the human when he points out "feel, intuit, vibrate emotionally, imagine, invent, create and recreate, relate and interconnect, self-organize, inform, communicate, express, locate, process and use the immense information of the global village; look for causes and foresee consequences, criticize, evaluate, systematize and make decisions "(p. 162). It demands to re-educate us as adults to educate, reform and order, demands to return to educate us in the new knowledge for the new world, feeling that return in contact with nature.

• As a third proposal is the pedagogy of tenderness, by author Cussiánovich (2005). To make education a social good and an inalienable right, as well as to tear it out of the market in which it has become a commodity, to make the new generations aware that what is at stake today is the project of humanity, the destiny of the human species





when exclusion is extended and inequalities deepen. Thinking children in their own lives, where the tenderness in the pedagogical relationship is focused on their epistemological and existential matrix, reflects how the formative task with social and political sense of doing from the present has been left to oblivion within the institutions future of humanity, values that are confused between technological practicality and limited reality to an ignorance of justice, democracy, solidarity, commitment to itself. Educating for society implies that the needs of both social and individual needs that each one requires be met.

These three proposals place the educator in situations, pedagogies and didactics towards the social benefit and not of the employment situation, but as proactive professional performance. To be a teacher who guarantees to be part of the generations located in the virtual context, enriching the interior of the classrooms, with the capacity of indignation, of the love of the earth (his planet), the confidence in himself and the other in collective good. With these training demands they intermingle pedagogically, in the understanding of the work with the other, not only with the computers but also, who is behind it, as mentioned by Figueroa (2015), with "the smartphone and other mobile devices [that] are being used recently in classrooms, both school and university, [and to which] it is called mobile learning, m-learning or mobile learning "(p.32). Without a doubt, the teacher needs to learn to consider in his teaching what is already part of social life.

Another teaching task on the school path is based centrally on the formation of an assertive intelligence (De la Plaza, 2012). Accompanied by a mentor who educates with love, in that world of competitiveness it is necessary to improve, first, some mental schemes that are observed in the virtual world. This perception is faced with what is received from the marketing in awards, social recognition, facilitate thinking in a context of unlimited information, receive information that has been clicked and it is not the subject who decides but the large companies that have the most its data and preferences, which forms cognitive schemes that are not assertive, successful, fast, expensive, higher academic degrees, better physical and style to dress, among others that are exhausted without an impact on life (Pariser, 2017). Applying it with Nousmedi @ students where assertive behavior is defined is a continuum of the school path that must be present in all actions, especially when deciding on a profession, which is related to our personal style and which gives greater mobility





capacity in various functions. Four features are considered according to De la Plaza (2012) for a decision making of such dimensions:

- Very clear understanding and definition of the content to be decided, so as not to confuse or enlarge it in the mind.
- Analysis of its possible consequences, in the case of choosing one or the other resolution.
- Synthesis of the analyzed, both in its different facets and its possible consequences. Example: What is the worst thing that could happen to me if I'm wrong?
- Final decision making and consequent personal commitment to it (p. 154).

It is here that the role of the educator manages to guide the young person more accurately towards the decision of his career or work field where he feels connected and established the man-nature-technology-culture hybridization of a factual reality, putting him again in terms of Benasayag (2015), hybridization for a pedagogical reality in which the connection with the reality that technologies have biased is built, so that the student recognizes their faculties and can identify the possible labor demands.

In relation to the work environment, Toche (August 23, 2016) notes the following:

According to the results of the Internet Search for Employment survey, of the Mexican Internet Association, 58% have found their most recent employment through online job boards and 76% of Internet users are confident that their next job will be found by this means, medium (párr. 10).

Also, in data from the National Institute of Statistics and Geography [INEGI] (May 16, 2018), it is observed that the use of the Internet is associated with the level of studies: the more studies, the greater the use of the network. Higher education students use the internet at 94.5%, which is why it is established as the technological interaction during the course of each grade to pursue a professional career or work performance.

This allows us to understand that information and communication technologies (ICT) have not yet been integrated as educational content either in the classroom or on virtual platforms through human development to enhance the working world.

The central purpose is to move towards the construction of neo-learning to explain and understand the training process that is experienced in digital media and how this allows decisions about the training path chosen, according to the revised information.





Materials and method

To address the follow-up of the students' educational paths and collect accurate data and their experience with the technology during their studies, the methodological procedure was of mixed cut integrating the qualitative and quantitative approach based on the basis of Buendía, Colás and Hernández (1998). Four instruments were used: 1) a field diary, 2) a questionnaire, 3) administrative records of university groups and 4) the index. The questionnaire consisted of 20 questions in total, the qualitative part with 9 open questions and the quantitative one with 11 closed questions with multiple choice (yes, no and probably) and delimited answers corresponding to precise indicators. The other quantitative instrument was the data lists: age, careers and academic degrees (semesters). A final one was the school index, where the averages of achievement that they have achieved in their higher education were found. Direct information was obtained for the treatment of the results in the selected subjects that are part of the complexity of the object.

The intentional sampling was for convenience or random, since all the subjects that make up the population meet the same characteristics, because they are part of a numbered list. There were 97 children identified as Nousmedi @ during the first stage of the investigation in 2007, when they were in the sixth grade of primary school. In this second stage, in 2018, using the same list, they are now young people who were studying between third and eighth semester of university or in teacher training institutions, as well as those who could have dropped out of school. The randomness was complex due to its location, magnitude of enrollment, the diversity of careers and the flexibility of university programs in the various schools.

The categories that guided the methodological procedure in the elaboration of items and results are:

- Nousmedi @ students.
- Formative path.
- Professional profile.
- Neo-learning.





Field work

The field work was carried out institutionally. Subsequently, individually with each student in the following phases:

- First phase. The institutional level was sent by sending the list of names to the different autonomous and private local universities of Mexicali. The management was performed requesting information on each of them to give way to locate them physically.
- Second stage. Once the youth were located, they were contacted by telephone to find out with each of them the willingness to be surveyed. In the process telephone calls were made and emails were sent. Only nine agreed to participate in that period of time, and the open invitation was open to those who did not have enough time.
- Third phase. The application of the questionnaire. Of the nine participants, seven attended the appointment in an academic cubicle of the National Pedagogical University 021, in Mexicali, and the other three were visited directly by prior agreement: one in their area of graphic design work, another as responsible for a local pharmacy and another at the university where he was in his professional career, who was accompanied by the coordinator of the career. Institutional management protocols were previously made to address them in person.
- Fourth phase. The systematization of learning results in their school paths, among which they were located in an academic degree, and we were provided by the institution with the full name, age, professional career, degree of study, average, telephone. The results of the questionnaire and the grade point averages they have achieved were organized.
- Fifth phase. The interpretation of results by triangulating the information, as well as writing the academic document.





Results and Discussion

From the first stage the management was carried out to request from the corresponding authorities the information on the students detected through registration registration lists. This procedure depended on the time of those responsible for the area and the willingness to support the project, which lasted approximately six months.

After the search of the 97 students, as already mentioned, 66 were found. On this total of subjects, nine were contacted by phone and then personally applied the questionnaire. The students participated not without astonishment for having been part of an investigation as children and also showed a great disposition by providing the requested information.



Figura 1. Estudiantes Nousmedi@ localizados

Following the results of figure 1, 66 of the Nousmedi @ a 66 students were found in the intentional sample, located through public and private institutions, which yielded the first location data of most of them. It can also be observed that 68.4% were placed as students in universities, at work or graduates of the university, who followed their school career. On the other hand, 21.6% was not located. With this information, it was possible to continue the search until we found them with any of the instruments.







Figura 2. Forma de localización de los Nousmedi@



Figure 2 shows that of the 66 students located only nine managed to be surveyed, representing 9.13%. Regarding the rest, it was possible to identify in what grade and career they are. It was discovered that 48.73% also continued their school career, because they were in some university degree, either as a graduate, active or discharged. Finally, there was a 9.14% codex, which could be contrasted with results shown below.



Figura 3. Nivel escolar logrado en el trayecto formativo

Fuente: Elaboración propia

However, as shown in Figure 3, of the 66 students located, 61 are studying at university level (62.8%), only four have finished their professional career (4.1%), and of these four, one is He is studying a postgraduate degree in education and two studying a





second career. 1% represents only one Nousmedi @ student, who was located by phone call with the number he provided when he was studying sixth grade of primary school, and who was informed that he did not study, married and emigrated to the United States, and Now he works in a welder technical job.



Figura 4. Perfiles profesionales del trayecto formativo del neoaprendizaje

Fuente: Elaboración propia

Another relevant aspect for these Nousmedi @ students regarding their training course is that of the various careers they chose, most of them scientific and human. It is observed, then, that within the scientific careers there are 37 Nousmedi @ students distributed as follows: nine in administration, eight in engineering, six in architecture, four in medicine, two in nursing, two in dentistry, two in veterinary medicine , one in nutrition, one in physiotherapy, one in chemistry and one in marine sciences. The other 28 Nousmedi @ are located in human careers: seven in law, seven in human sciences, six in teaching, three in social and political sciences, two in languages, one in arts, one in commerce and one in graphic design (see figure 4). So it is observed that 57% presented a greater interest in their election for scientific careers and 43% decided to pursue humanistic careers.

In these results we can observe the tendency to choose careers with greater relation to the scientific field rather than the humanistic one, so it can be said that the influence of the information received in the networks influences the evaluation of their performance in the future. In the school journey, students are already with a digitalized reality and





communication in networks, interacting both in the virtual environment in which they learned to build educational challenges or goals and in the school environment of being social.



Figura 5. Tiempo dedicado a la cultura a través de la tecnología

Fuente: Elaboración propia

In figure 5, on the other hand, it is observed in a range of 0 to 100 the way in which students confirm their management and dedication of time to technology, with which neo-learning is generated. They use it in 56.6% for the cultural, 76.6% for learning and 63.80% for their life project. No doubt they recognize technology as an element that accompanies them in a positive way throughout their school development.





Fuente: Elaboración propia



The neo-learning in its formative path is generated in spaces outside the school and where information about their tasks and other topics of interest is shared. The name of several devices through which students previously interact to classes was located in the response. As can be seen in Figure 6, there are organized responses with 10 main devices, of which its use of technology is explained with the following results: to elaborate tasks we find (83.8%), in the search and construction of new learning (81.6%), to chat interacting with their peers (80%), the formation of network groups (69.4%), the use of films for study (58.8%), participation in cultural events (52.7%) and the use of magazines (42.7%). As entertainment devices sometimes labeled as distracting, there are television programs (34.4%), watching cartoons (21.1%) and video games (13.2%), results that allow us to see how they use technology in their study processes and entertainment The representation left by the data is that students can discern and reflect the use of technology for their daily activities, which generates certain knowledge that support during their formative journey and in making decisions to consolidate their life project.

These results are related to a tool that has currently dominated the management of information and to which Figueroa (2015) alludes, referring in turn to an investigation that "shows that university students, smartphone users reach 97%" (p. 31). Then, the variety of uses confirms the skills that are close to the elaboration of tasks and those that are distracting. What determines that there are seven study devices with more than 40% of formative use, while three are distraction and entertainment, with less than 35% of use. This category of neo-learning, according to Banda (2017), becomes evident as the collective construction (two or more devices) of assimilating, apprehending and learning by sharing the previous formative content and during class.

The qualitative part of the instrument shows that the Nousmedi @ contacted students and to whom the questionnaire was applied showed in their answers that the use of technology was increasing unlike when they were children: now they have greater access to it and have integrated to your daily activities. The answers indicate the following:

- They use technology between 7 and 20 hours a day.
- They use devices such as laptop, tablets, cell phone and computers. Although with respect to the laptop, they dedicate a minimum in time, which can be from one hour.



And the most used, yes, is the cell phone, also known as a phone or smartphone, for about 18 hours. The television did not give a fixed parameter of use.

- They believe that they can study with technology through reading, in auditory form, in interaction, communication, review, feedback, facilitate knowledge, research, search for requested and new information, data collection, presentations, word guides, punctuation of ideas, exhibitions, concept maps, scientific articles, anatomical models and codes of laws, among others, which gives it great diversity of technological use for its school year.
- They help them in textual form and facilitates their learning:
 - Through WhatsApp and Messenger groups, which are registered trademarks of digital networks that young people use to communicate about their tasks, discussion with colleagues via chat and search for concepts, exhibitions, understanding of a new topic, use of videos on Some specific topic.
 - Search and research of ideas, research on the Web of scientific journals, see the contrast of ideas, a certain topic as the importance of technology. Watch videos about embryology. Anatomical models: know how the body works and make synoptic pictures to strengthen what has been learned, stippling of ideas, pre-collection of important information.
 - It is common the design and presentation of slides (PowerPoint) for certain subjects of the subject, on how to carry out something.
 - Read the information to have confidence in myself and to be able to develop in a safer way, and thus understand properly and manage to give your point of view in a more suitable way.
 - Investigate before performing any action in the field or to reality, experience the function with previous simulators.

In question 12 of the questionnaire they indicate that the ways of learning with their peers in the networks, prior to classes, facilitates the interaction with the teaching that the teachers impart in the classroom and their peers who do not use technology. They think that they can communicate and agree to explore a topic or dispel doubts, which is an easy and comfortable tool, it is a pleasant way that you can improve in class. Networks are a means to be aware of what jobs are and share information.



Another of the central questions, number 13, about learning the contents of the school through the virtual networks that they share with their classmates, throws as an answer that facilitates the results in the classroom. They consider it more dynamic and easy to find information and gain knowledge and help to better understand the subject. You work collaboratively and in synchrony, do group work without having to be present.

Recognize that learning content in school through virtual networks makes it easy for them to express their ideas, knowledge and skills to define their life project. In question number 14, participants respond that everything is linked to school, everyday life, to be a complete person, that everything revolves around technology, so it is a tool that helps to learn in a simple way and we It gives an idea of how it will be, it facilitates what takes more time. Because it allows you to have extensive knowledge and keep up to date with what is happening, they say, there are variable types of information and it is not as monotonous as a book, it helps in taking new knowledge for your careers, the information is more at your fingertips and can be apprehended in an easier way, therefore, technology accompanies them throughout their schooling.

In the answers that reflect whether the use of technologies is important in the decisions taken by Nousmedi @ for their life project, raised by question 20, which is the closing question, it shows that 56.1% consider that they do use the technologies when making decisions to build your life project. These decisions have been presented in various forms, such as searching for strategies and information, they are constantly updated and with the reconstruction of the new logic of reality that they configure by complementing in this distant generation what education aims for them. They investigate and activate all the possibilities available digitally to carry it out: what is the best option, what is best for them and what risks and fruits they can achieve. One of them comments that when having the technology, the real health problem was reported in underdeveloped countries, which greatly influenced the decision to choose the medical career (respondent No. 9). They also recognize that not all information found on the Internet is true and that you have to know where to look. Nowadays, a simple message or a call or, failing that, a video call can greatly influence; an email, for example, "let us know if we went or not" (respondent No. 9).





Cardexes that were obtained in print were allowed to be used only to document learning averages. Only the highest and lowest data were taken to compare a distance over 10 years of schooling. All this is presented in table 1.

Nivel escolar y año	Calificación baja	Calificación alta	Diferencia a 10
lectivo			años
2007	8.08	9.18	0.45
	(equivalente en	(equivalente en	
	centésimas a	centésimas a 90.18)	
	80.08)		
2017	72.33	89.73	7.75

 Tabla 1. Tabla comparativa de calificaciones 2007-2017

Fuente: Elaboración propia

Table 1 shows that when they were in sixth grade in 2007 (97 students), the highest average was 9.18 and the lowest was 8.02; Now, in 2017 (sample of nine students), at university level, the low grade is 72.33 and the highest is 89.73. To find the distance difference of 10 years of schooling, the equivalence was made in hundredths, and a difference in their school performance is observed under 7.75, which is notorious taking into account that the difference in the low grade is about two cases who dropped out, which represent the lowest grade. However, in the high rating 0.45 the difference remains and is notorious in the partial averages of the Nousmedi @. Therefore, in the general passing grade in this random sample, we find that they continue to respond positively to their activities in learning achievement.

From all this it can be pointed out how the virtual world has been inserted into teaching within the classroom as a means of learning, but the conceptualization that explains how new generations learn in their digital context is still not achieved, even more so if that context that has created a path that permeates what has been learned in days and hours that prior to their classes get for the treatment of a specific topic. Hence, there has been no evolution in teaching. We confirm that the learning that is intended within the classrooms interacts in an extraclassed way by the students in the digital universe, a space where they constitute neo-





learning. Exclusively these participants know the content, the procedure and the purpose of such interaction in order to prepare previous knowledge and information required to treat the learning with the teacher and his classmates in person.

Conclusions

Starting from the data already obtained in the exploratory stage and finding part of the 97 students, the difficulty was that the authorities of the universities made the management towards the administrative areas. In fact, in one of the universities it was a slow process, since there was no staff to perform this search. The strength is that more than 50% of the data was obtained to locate them by schools. When attending these, the search was difficult due to the flexibility of the curriculum and the location by classrooms and specific schedules of each student. So we opted for phone calls.

Already located 65 students, only nine of them agreed to let us know what was the educational scope or path they have achieved in school with the experiences of being a technologically interactive subject. It was found that the majority of Nousmedi @ students managed to develop with neo-learning through technological means, which are already part of their school career, which is complemented by the tasks they perform in their classrooms, and which the teacher cannot identify until it generates the suitable environment of convergences, where they contribute all that discovered and relate it to the study contents. This interaction and life in the interface serves to inform them of the opportunities to continue their studies or choose the labor field according to their training.

In sum, those who are still studying their professional career were found, others who have already finished it, and an unidentified party currently. However, 68.4% are in universities. And although they do not go in the academic degree that they should, they have not given up in obtaining a professional formation.

In this meeting it was observed that the Nousmedi @ as through neo-learning, recognize their trajectory with the help of social networks and learning objects that are provided in the interface, and can find the information that guides them to decide a professional future or work.



Therefore, it is concluded that the characteristic features of the Nousmedi @ allow to reconceptualize learning in an autoformative sense, mainly at the moment in which these subjects interact by clicking on technology, since they activate and acquire information, knowledge, knowledge, mental abilities, Technological and sociocultural, thanks to which they form a cybernetic media collection of technoculture in a commonality with their peers for a specific purpose. This is precisely what we call neo-learning, a process that teachers must appropriate to potentiate their formative work in the classroom.

The teaching responsibility is to understand this generation. We recognize that the generation is all subjects that use digital media to inform themselves, build their knowledge and share their academic studies with what they have found, and thus produce new analysis logic. It is, therefore, Nousmedi @ with its characteristic form that goes from learning to learning.

It concludes with the knowledge of four pedagogical needs. First, recognize that education that recovers the interface world from the curiosity of students contributes to the formation of what is called here as an augmented brain. The question is to know what is required for this development, the training requirement to make objective through school and social experiences that relate to curricular content. Second, that teachers deserve a pedagogical evolutionary training that reflects and guides their students in the critical analysis of information and the surrounding reality: having references in the interface world on how they customize the use of cliqueo to be detected from the market what they should consume in product or information, that is a rescue of the subjects that apprehend in digital media, who usually feed the study contents in the classrooms. Third, the Nousmedi @ need to be returned to the planet, that is, from thinking when doing, feeling nature, life, that they understand that they are part of a reality that directly affects them in their physical development and in their mental health. Finally, build a pedagogy of convergence from teaching that consents with their students the learning content. And approach this work with pedagogies identified with meanings of indignation, land and love. These three senses, which are articulated in technological subjectivity, and which are kept in oblivion must be recovered for the didactic construction. This work is a call to teachers to reconceptualize their Nousmedi @ students who find no formative refuge for life. The generation studied in this work must have completed the total school grades since 2007, when they were in sixth grade of primary school, and in 2018 they were finishing a professional career. They required





to understand that the school had not evolved as their context demanded, so it is necessary to be building teacher training proposals to serve students convergently and in a real sense.

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References

- Aronowitz, S., Martinsons, B. y Menser, M. (1998). *Tecnociencia y cibercultura. La interrelación entre cultura, tecnología y ciencia.* España: Paid Multimedia 7.
- Banda, L. C. (2013). La inteligencia interactiva de los alumn@s nousmedi@. Un concepto para el andamiaje pedagógico del docente. México: Red de Investigadores de la Frontera.
- Banda, L. C. (2017). *L@s alumn@s nousmedi@: un concepto para comprender la enseñanza en las aulas del siglo XXI*. México: Fondo Editorial del Magisterio.
- Benasayag, M. (2015). El cerebro aumentado, el hombre disminuido. México: Paidós.
- Buendía, E. L., Colás, B. P. y Hernández, P. F. (1998). La investigación por encuesta. En Métodos de investigación en psicopedagogía (pp. 119-155). México: McGraw-Hill.
- Cussiánovich, A. (2005). Educando desde una pedagogía de la ternura. Perú. Recuperado de

https://www.insumisos.com/lecturasinsumisas/Pedagogia%20de%20la%20ternura .pdf.

De la Plaza, J. (2012). La inteligencia asertiva. Cómo, cuándo y dónde expresar lo que piensas. México: V&R Editoras.





Figueroa, C. S. (2015). El uso del *smartphone* como herramienta para la búsqueda de información en los estudiantes de pregrado de educación de una universidad de Lima Metropolitana. *Educación*, 25(49). Recuperado de

Freire, P. (1997). Pedagogía de la autonomía. México: Siglo XXI.

Freire, P. (2012). La pedagogía de la indignación. España: Morata.

Gadotti, M. (2002). La Pedagogía de la Tierra. Argentina: Siglo XXI.

Han, Byung-Chul. (2014) El enjambre. Barcelona, España: Herder

Instituto Nacional de Estadística y Geografía [INEGI]. (16 de mayo de 2018). Comunicado de prensa núm. 208/18. México: Instituto Nacional de Estadística y Geografía. Recuperado https://www.inegi.org.mx/contenidos/saladeprensa/aproposito/2018/internet2018_

Nal.pdf.

- Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura [Unesco]. (2015). *Declaración de Incheon. Educación 2030*. Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura. Recuperado de http://unesdoc.unesco.org/images/0023/002338/233813M.pdf.
- Pariser, E. (2017). *El filtro burbuja. Cómo la red decide lo que leemos y lo que pensamos.*México: Taurus.
- Quinta, J. M. (1993). Pedagogía Familiar. Recuperado de https://books.google.com.mx/books.
- Toche, N. (23 de agosto de 2016) Búsqueda de Trabajo por Internet la mejor. *El Economista*. Recuperado de https://www.eleconomista.com.mx/arteseideas/Busqueda-detrabajo-por-Internet-la-mejor-20160823-0106.html.

