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Technnology for Disruptive Teaching and Comprehensive Processes. Network School.

Quiroga Sergio Ricardo.

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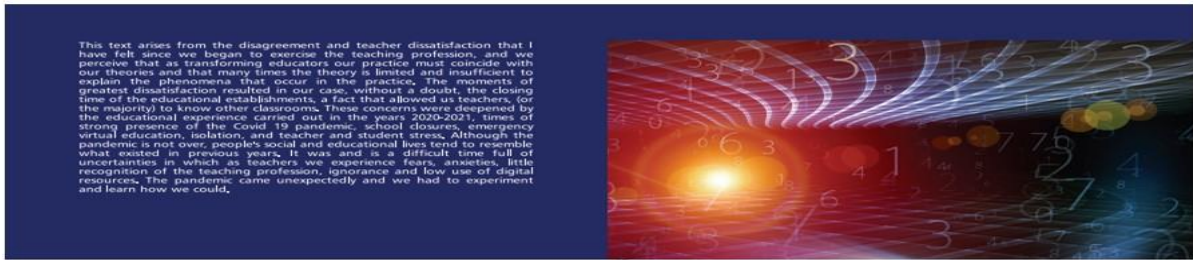# Documento de Trabajo

DISRUPTIVE TEACHING AND COMPREHENSIVE PROCESSES NETWORK-SCHOOL

SERGIO QUIROGA

This text arises from the disagreement and teacher dissatisfaction that I have felt since we began to exercise the teaching profession, and we perceive that as transforming educators our practice must coincide with our theories and that many times the theory is limited and insufficient to explain the phenomena that occur in the practice. The moments of greatest dissatisfaction resulted in our case, without a doubt, the closing time of the educational establishments, a fact that allowed us teachers, (or the majority) to know other classrooms. These concerns were deepened by the educational experience carried out in the years 2020-2021, times of strong presence of the Covid 19 pandemic, school closures, emergency virtual education, isolation, and teacher and student stress. Although the pandemic is not over, people's social and educational lives tend to resemble what existed in previous years. It was and is a difficult time full of uncertainties in which as teachers we experience fears, anxieties, little recognition of the teaching profession, ignorance and low use of digital resources. The pandemic came unexpectedly and we had to experiment and learn how we could.

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Sergio Quiroga

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FOREWORD

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The moments of greatest dissatisfaction resulted in our case, without a doubt, the closing time of the educational establishments, a fact that allowed us teachers, (or the majority) to know other classrooms. These concerns were deepened by the educational experience carried out in the years 2020-2021, times of strong presence of the Covid 19 pandemic, school closures, emergency virtual education, isolation, and teacher and student stress. Although the pandemic is not over, people's social and educational lives tend to resemble what existed in previous years.

It was and is a difficult time full of uncertainties in which as teachers we experience fears, anxieties, little recognition of the teaching profession, ignorance and low use of digital resources and in some cases, lack of equipment. The pandemic came unexpectedly and we had to experiment and learn how we could.

We can (nosotros podemos)

We can
The world can be happier,
if we do.
We can dream,
So let's not waste time.
You can change education,
you can change the world.
We can change education,
we can change the world.
Everyone expects a positive change.
We can.

Sergio Quiroga (2022).

EDUCATION FOR THE 21ST CENTURY

For Jacques Delors and the International Commission on Education for the 21st Century, education is based on four pillars. They are: Learning to Coexist, Learning to Be, Learning to Know and Learning to Do. It is about learning to know, combining a broad general culture and the deepening of knowledge in a small number of subjects. It is useful to know how to learn in order to take advantage of the possibilities offered by education throughout life.

Learning to do is acquiring not only a professional qualification but also a skill that enables people to deal with a large number of situations and to work as a team. But, also, learning to do in the framework of the different social or work experiences that are offered to young people and adolescents. Learning to live together is to develop the understanding of the other and the perception of the forms of interdependence, the construction and realization of common projects and the preparation for dealing with conflicts respecting the values of pluralism, mutual understanding and peace. Learning to be so that one's own personality flourishes better and the conditions to act with a growing capacity for autonomy, judgment and personal responsibility.

SCENARIOS OF LEARNING AND NEW EDUCATION

The pedagogical models that are prevailing in the knowledge society are promoting a culture of lifelong learning, given the transience and speed with which information is produced, raw material for the elaboration of various types of knowledge, and it also exposes that the border between formal and informal education will possibly not exist.

Over the years, educators, educational and government administrators, and states are increasingly convinced that not everything that is learned is learned in school and that each person has unequal learning rhythms, styles, and abilities. On the other hand, the model of extended education (Freire), ubiquitous learning (Burbules, 2012) and open learning (Cobo, 2011) has been used more and more frequently in the formal educational field in recent years.

The traditional school has remained highly resistant to reforms and changes, exposing great rigidity. The idea of expanded education will become more visible over time. Being outside the school will constitute a scenario of new learning. The learning possibilities of informal learning environments and the potential that cities and informal environments offer for learning are immense.

Infrastructure understood as open allows other people to learn from it, even contribute to improving it. This opening of infrastructure invites teachers and educators to rethink urban furniture: its uses and capabilities, but also its potential, how to open it and link it with other equipment, other people, other spaces, other urban relationships. In other words, there is a sensitive relationship between space and furniture. Meanwhile, digital infrastructures can be the basis of spaces for community relations and development.

The open learning model in the coming years will have a wide ascendancy in the formal educational field. Salinas (2012) states that future learning scenarios are aimed at integrating the pedagogical possibilities of personal, social and institutional learning

environments in educational organizations, which must define teaching-learning (e-a) methodologies for these new virtual environments integrated are more open and innovative. These learning scenarios are contextualized micro universes that can help develop students' abilities, skills and attitudes. The streets, the squares, the cities are some of them.

These new scenarios will make it possible to work with new methodologies, which will implicate an interdisciplinary approach to school content and projects, which will have to assume a more open and flexible nature and which will mean the condensation of formal and informal learning.

The multi-ICT scenario that students should have will allow them to eliminate the barriers of space between students and teachers, have more flexible and attractive scenarios where the school will be one more, will promote self-learning, recognizing that the school is not the only training scenario.

THE EDUCATIONAL SYSTEM OF THE MID-21ST CENTURY AND THE INTEGRATION OF PEOPLE

García-Lastra (2013) points out that one of the fundamental ideas that must be taken into account when addressing the characteristics of the 21st century school is the ephemeral nature of the knowledge to be transmitted and the consequence of this fact on the learning processes. teaching-learning. García Lastra (2013) consigns that the type of society that we attend, demands from the school a preparation that cannot revolve around the accumulation of knowledge, but rather the acquisition of skills to be able to face new situations, synthesize information and apply it in different fields of knowledge. Following this idea, the school must open its walls to let in new voices and approaches far from traditional school culture and strengthen its networks to take advantage of the cognitive riches that the immediate environment can offer. A school of mobile and

flexible spaces that invite the critical study of problems by formulating good questions. A school where technologies allow better learning, an open networked school.

Image: Collage of images of free school spaces.
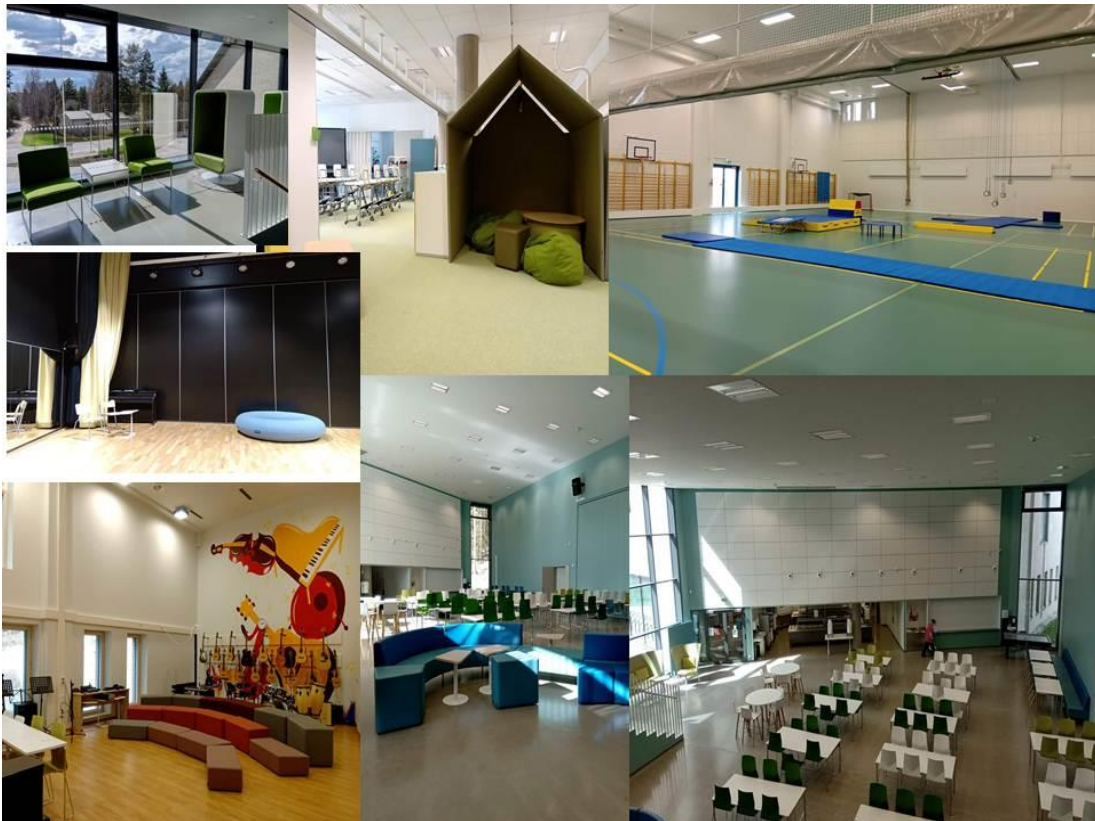
Formal and informal environments increasingly united and with weak borders. The recognition that knowledge is increasingly relative and fleeting and that it quickly becomes obsolete should guide educational action. Teaching to search, to critically assess and to think should always be a school challenge.

TEACHER TRAINING WITH ICT

The constant development of digital technologies and the Internet caused us to live in a digital context based on connections. The way of learning has changed (other ways have been recognized) and, therefore, the way of teaching. Knowledge is online and teachers must be the ones who accompany students in their learning process. Universities and teachers must account for this situation. The world of teachers has always been heterogeneous and professional development actions should go from basic knowledge and instances of approximation and practice for the management of ICT, through reflection on its uses, its application and integration in the educational field.

Today more than ever a teacher is needed to accompany the teaching and learning processes. In recent years, learning theories have been developed that emerge from a new context characterized by the emergence of new information and communication technologies in the field of education. These learning theories such as connectivism and open learning, among other concepts, and some analyzes of the underlying models emerge from a new context characterized by the emergence of new information and communication technologies in the field of education. The relocation of knowledge brought as a consequence that students and teachers relate to other knowledge and interact with the outside of the classroom, at any time and place. This unprecedented situation configures new forms of relationship that expand learning environments, even enabling collaboration and empowerment through the use of ICT.

Connectivism and open learning, among other concepts, and some analyzes of the underlying models that have been formulated. In this context, Siemens (2014) has suggested the theory of connectivism, understanding learning as a process that occurs within complex environments with changing elements that are not controlled by the individual.

PANDEMIC AND EDUCATION

The first confirmed case of coronavirus in Argentina occurred on March 3, 2020 and was shown by the Argentine media and the first death, ten days later. On March 20, the government issued a decree ordering "Preventive and Mandatory Social Isolation" suspending all non-essential activities, as well as all national and international travel and transportation, and closing the country's borders.

The distressing phenomenon of Covid 19 exposed deficiencies, limitations and lack of investment in strategic sectors of the country. In the first place, it has presented the different levels of precariousness of the health system in the Argentine context, the medical organizations and the educational systems, among others, due to the scarce budgets that the governments allocated to these areas. In the case of education in the Argentine context, due to the emergency, classes began to be taught through an online system using ICT. Teachers and professors had to transform the structure of their traditional classes and their pedagogies to the new format in days, so we could well speak of an emergency digital education, since it was not planned.

Along the way, we find students without connection devices, Internet deficiencies, teachers without training, who have turned part of their homes into a kind of virtual classroom and more work by having to propose the use of "digital" in their classes. , etc., use and abuse of videoconferencing platforms (meet, zoom, etc.).

The pandemic has exposed the vulnerability of educational systems, being connectivity, the limited experience of teachers in the online education modality, the speed with which classes had to be prepared and the fact that not all students and teachers had the necessary technological resources, the main limitations for the development of student learning in Argentina. The lack of connectivity also exposed that the digital divide in conditions of confinement extends and strengthens the social divide Without a doubt, the appearance of the pandemic with all its negative social and economic effects will promote more quickly the increase in teaching and mediated learning by ICT and it is expected that at the end of it, governments will dedicate more

attention and budget allocations to education, to its teachers and professors, to schools, etc.

In the teaching world, proposing learning environments means conceiving the person in the environment, that he is part of it, that the environment is within the individual and that necessarily to learn, there must be an interaction with the environment (Paredes Daza and Sanabria Becerra, 2015). In this sense, the authors speak of the environment as "an integral element of life, understanding that life cannot exist without the environment, that the organism needs a medium to exist and to live, and that it lives thanks to the fact that the organism is interacting with the environment" (Paredez Daza and Sanabria Becerra, 2015, p. 12). The teaching challenge is to design clear educational conditions to meet the needs and problems of students and should encourage people to feel the desire to learn.

Table N° 1 Learning Environments
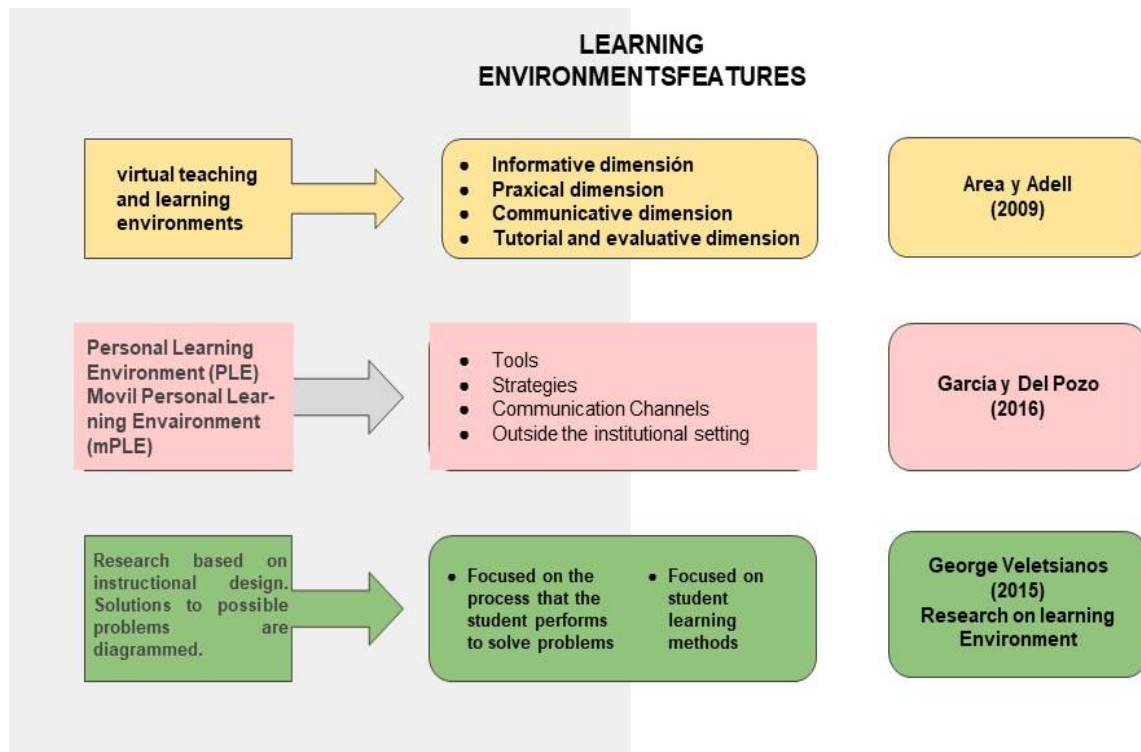
WEB ENVIRONMENT

Web 2.0 and Web 3.0 have constituted an important advance in the educational field, offering great possibilities in virtual educational spaces. The teaching-learning processes with multiple resources must favor the autonomous and collaborative learning of the students and the development in them of new capacities and competences. In the educational field, technological resources and social contributions provide a set of sophisticated strategies and functionalities for publishing and managing educational content in Web environments (Vaquerizo-García, 2011).

Cristóbal Cobo together with Hugo Pardo Kuklinski (2007) point out that Web 2.0 not only offers improvements to learning possibilities due to its ability to teach more students, but there are also opportunities in terms of enriching teaching and learning processes. Cobo affirms that the Internet has evolved from being a means of communication to a collaborative space, a fact that brings innumerable advantages when applied to educational processes. The authors emphasize that the concept of learning 2.0 rests on two principles of web 2.0, which are:

• User generated content

• An architecture of participation

Cobo recognizes four components in learning 2.0, these are:

1. Learn by doing. It is a process of both individual and collective creation; it is based on the principle of trial and error.

2. Learn by interacting. The focus of this type of learning is on peer communication tools.

3. Learn by searching. It refers to the process of research, selection and adaptation of sources that have information on a particular topic.

4. Learn by sharing. One of the great advantages of web 2.0 is the architecture of participation and it is through this feature that a path is opened to share information, knowledge, and experiences.

In the collaborative Web (Web 2.0), the content is created by users, which has led to a revolution in the dissemination of information. It implies a greater participation and relationship between the students and the teacher, and this can be analyzed – according to Vaquerizo-García 2011 -, from two aspects, the technological and the social. In the technological aspect, Web 2.0 allows to have a set of sophisticated tools for publication and content management. In the social aspect, it enables the appearance of a collective intelligence from the aggregation of individual contributions that are not systematized or explicitly guided.

EMERGING DESIGNS

From the perspective of practical knowledge (Pérez Gómez, 1992), of the practice of teaching, there are no perfect designs; there are designs appropriate to the conditions and characteristics of the reality in which one intervenes with practical purposes or interests: in our cases, to promote learning, generating knowledge development. In agreement with Edelstein (2011), the teaching practice can be seen as the methodological construction in which decisions are combined that take into account the logic of the disciplinary contents, the logic of the subjects and their learning needs and possibilities, and the logic of institutions.

Table 2 Emerging Pedagogies
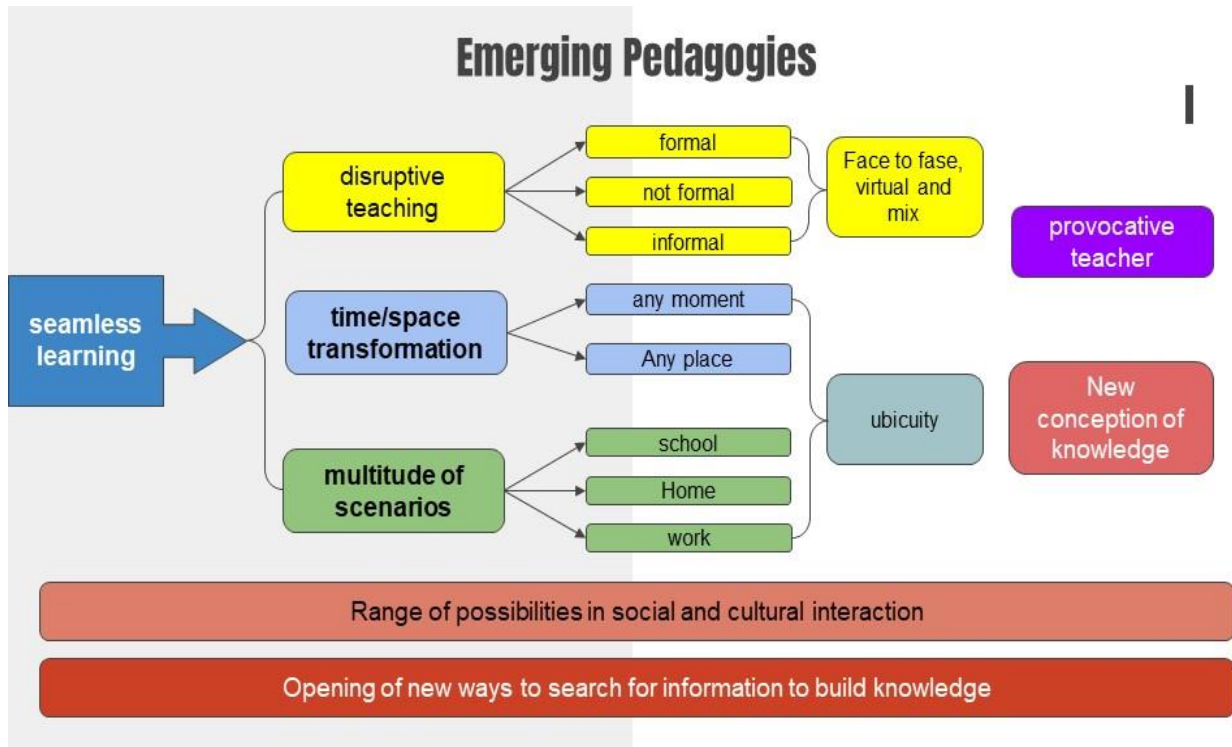
Significantly, these three dimensions are starting points from which to think and decide on other components of the design:

- Fundamentals
- Purposes or intentions
- A didactic sequence that combines decisions regarding content, activities, times, space resources, work teams, pedagogical and technological environments.
- Evaluation

On the other hand, the category "pedagogical cores" serves to think from a unity of meaning, that is, from a coherent whole in which the parts make sense around a defined pedagogical intention.

- Recognition of the multiple contexts in which teaching and learning processes take place

- Technology conceived as a territory where content circulates, interactions take place and the educational proposal takes place

- The learning activities of the participants as the organizing axis of the pedagogical proposal

- Interactions with the content, with teachers, with colleagues/partners and the construction of knowledge through peer collaboration (even through work in small groups) as constitutive of learning processes

- Communication in different temporal spaces (synchronous, asynchronous) and mediated by technology

- The selection of valuable content, supports and appropriate resources, which facilitate the realization of the experiences and tasks planned

- The teacher as a guide and mediator of learning processes

- The generation of genuine links between participants (Shwartzman et al, 2014, p. 41-42).

Table 3 Assimilation, Accommodation and Balance
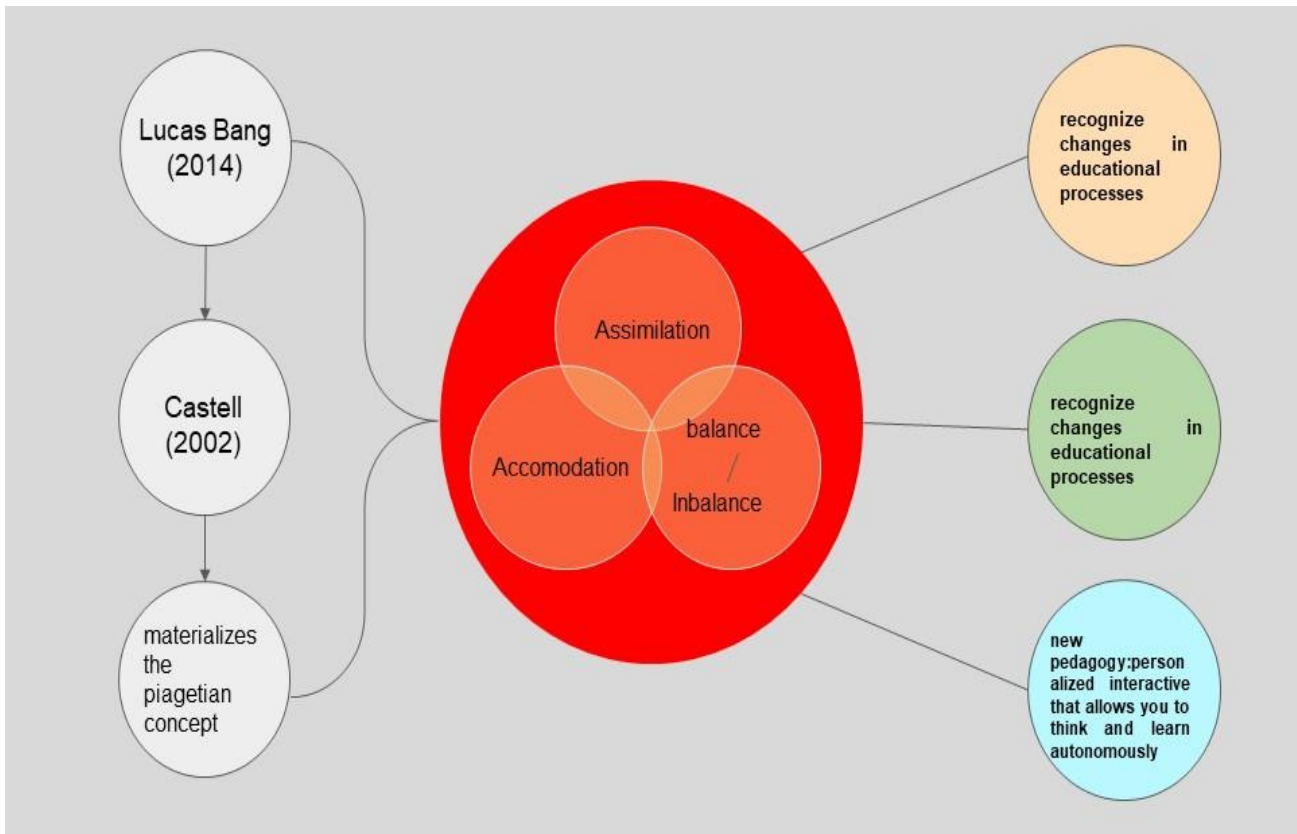
EPISTEMOLOGICAL POSITION OF THE TEACHER-RESEARCHER

In this era of digital expansion, the purpose of secondary and higher education is based on contributing to the development of cognitive skills and both general and specific competencies, divergent thinking aimed at the formation of critical citizens and the development of our societies. We think that it is challenging for our own training as teachers, to incorporate research into practice as a tool for their own professionalization.

This need goes beyond current regulations and reflects the difficulty of a task in which it is necessary to take a deeper look to understand it and be able to act on it. It is understood that the educational reality is dynamic and evolutionary and the subjects themselves are the active agents destined to configure and build that reality. The educational reality is not something or little objective that can be apprehended through

knowledge outside the subject. Theory and practice form a whole, so it is not possible to speak of universal theories. In this sense, the objective of the theory is the formation of character in the habits of reflection. The object of investigation and the questions related to it are not objective, they always have an axiological load of the prevailing values in society.

We verified that research in teaching practice constitutes a means to respond to the demands of the training itself because it makes it possible to understand and evaluate the teaching and institutional action. These conditions also allow organizational participation, since action research not only makes it possible to reveal problems but also offers intervention tools to modify them. Action-Research allows the organization to operate systemically, as a whole, its dynamic and complex reality emerges from any of the investigated aspects.

These possibilities that facilitate the knowledge and experience of the most frequent problems of educational institutions, which are linked to a historically and socially constructed organizational culture. Culture that constitutes an identity of educational organizations.

We give an account of a praxeological vision oriented to the improvement of practice, the democratization of knowledge in which the researcher is the teacher himself who becomes the generator of change and the interest is focused on the problems close to the educational practice of the classroom. It is also considered in the disruption in education as a rupture or abrupt interruption of the prevailing order, as a series of emerging postulates for the transformation of education. Disruptive educational practices, therefore, are those that seek to break with what is established in order to improve what already exists.

We associate the task of designing teaching (or thinking about teaching) with the trade and with art, because of the creativity that it entails and because of the practical knowledge that we have about the relationships between subjects and knowledge, subjects and technologies, for example, and for the attention to the game of the unpredictable and the open and the unfinished.

TRANSFORMATION

Transforming education is also building disruptive educational spaces. We understand disruptive education as the set of actions, strategies and teaching methodologies that allow the introduction of advances and innovations aimed at transforming educational processes, through Learning and Knowledge Technologies, and the uses that are developed in the field of education and communication.

Disruptive education is born for all people interested in building a different education, in order to improve and adapt it to current needs. According to the dictionary of the Royal Academy of the Spanish language (RAE) "disruption" means: sudden breakage or interruption. In this case, when we talk about this "interruption", it is about exploring the new limits of education.

Proposing learning environments means conceiving the individual in the environment, that he is part of it, that the environment is within the individual and that necessarily to learn, there must be an interaction with the environment (Paredes Daza and Sanabria Becerra, 2015). In this sense, the authors speak of the concept of the environment as "an integral element of life, understanding that life cannot exist without the environment, that the organism needs a medium to exist and to live, and that it lives thanks to the fact that the organism is interacting with the environment" Paredez Daza and Sanabria Becerra, 2015, p. 12).

Innovation is possible by incorporating techno-pedagogical methodologies and trends, making learning more attractive that seeks deeper teaching. We associate the task of designing teaching with art, because of the creativity that it entails and because of the practical knowledge that we have about the relationships between subjects and knowledge, subjects and technologies, the interactions that occur and because of the attention to the game of the unpredictable and the open.

In a turbulent context for societies and for higher education organizations themselves, internationalization is expressed as one of the ways in which universities respond to the trends of economic and cultural globalization. In recent years, universities have begun to pay attention to education in digital media, efforts that were emphasized during the years 2020 and 2021, a time of full development of the pandemic and emergency virtual education.

The teaching challenge is to design clear educational conditions to meet the needs and problems of students and should encourage people to feel the desire to learn. We associate the task of designing teaching with art, because of the creativity that it entails and because of the practical knowledge that we have about the relationships between subjects and knowledge, subjects and technologies, the interactions that occur and because of the attention to the game of the unpredictable and the open. From the perspective of practical knowledge (Pérez Gómez, 1992), of the practice of teaching, it is considered that there are no perfect designs, there are designs appropriate to the conditions and characteristics of the reality in which one intervenes with practical purposes or interests: in our cases promote learning, generate knowledge development.

María Acaso in her book rEDUvolution: making the revolution in education uses the term rEDUvolution constructed with the mixture of the terms revolution and education and emphasizes the need to build a real transformation in educational spaces through five key axes:

• Accept that what we teach is not what students learn.

• Change power dynamics

• Inhabit the classroom.

• Go from simulation to experience.

• Stop evaluating to investigate

Diagram N° 4 - The disruptive potential
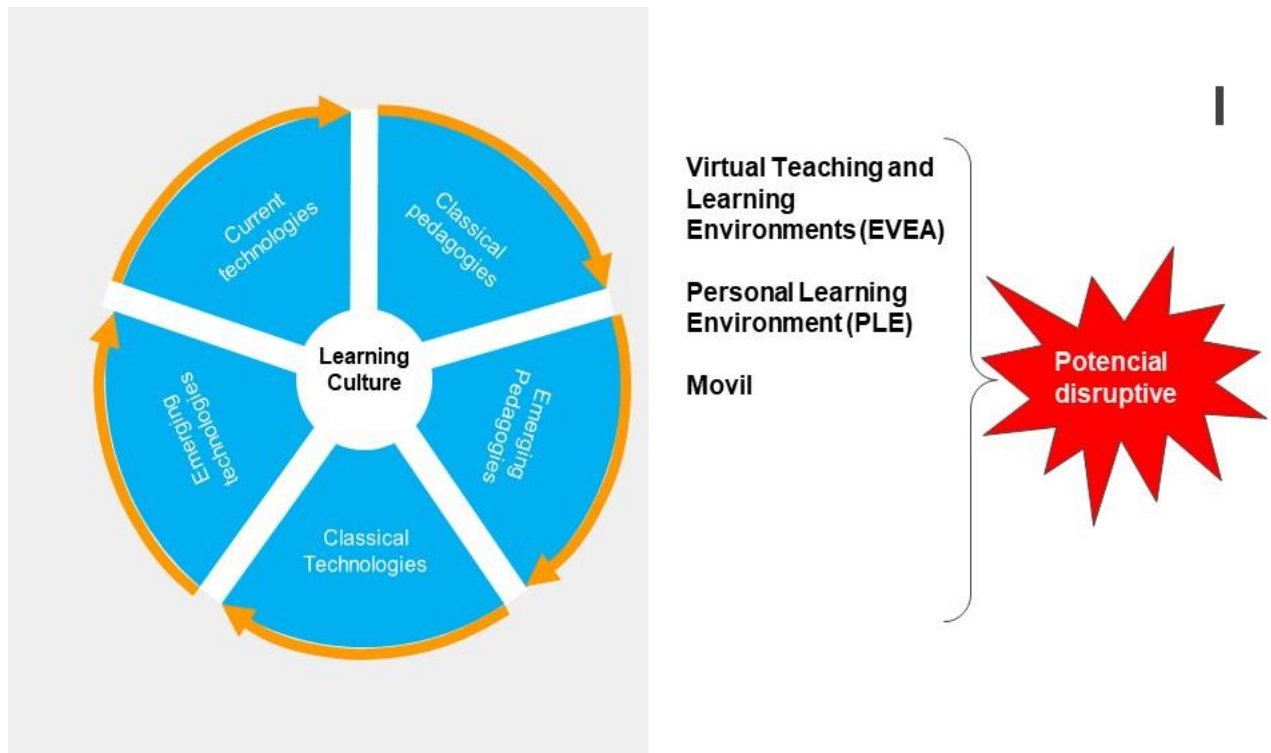
On the other hand, teaching in digital media (E-Learning) is characterized by the disappearance of temporal space barriers, allowing ubiquitous, personalized learning and advocates flexible training with a variety of methods and resources used adapted to the characteristics and needs of the students.

The educator becomes a tutor who guides, guides, helps and facilitates the training processes, news and resources related to the subject of study can be quickly introduced into the contents, so that the teachings are fully updated and considered the student is the center of the teaching-learning processes and actively participates in the

construction of their knowledge, having the ability to decide the training itinerary that best suits their interests. Communication flows constantly between the participants, thanks to the tools that e-Learning platforms incorporate (forums, chat, e-mail, etc.)

The development of ICT (Information and Communication Technologies) enables the creation of new learning scenarios that allow obtaining more information and transforming it into knowledge to be able to share it. Educational digital tools have spaces for reading, exercises and playful games, blogs and chat rooms, where you can also share videos, images or texts created by students in order to improve interaction and participation between students and the teacher.

Gardner who proposed the theory of multiple intelligent, understood that this is not a unitary set that groups different specific capacities, but a network of characteristics that are activated based on the values of a given culture, social or physical conditions, of the decisions made by each person or their family, their teachers and others around them. It is for this reason that each person assimilates education in a particular way, through theory it is understood that it is essential to adapt the teaching method to the learning abilities of each individual. As one of the differentiating elements of the proposal, an approach focused on the group of students is proposed, with adequate tools in a close relationship between teacher and students and tutorial monitoring in the learning space.

A teaching proposal according to Edelstein (2011), can be defined as the methodological construction in which decisions are combined that take into account the logic of the disciplinary contents, the logic of the subjects and their needs and learning possibilities, and the logic of institutions. These three dimensions are starting points from which to think and decide on other components of the design:

1.   Fundamentals
2.   Purposes or intentions

3.   A didactic sequence that combines decisions regarding content, activities, times, space resources, work teams, pedagogical and technological environments.

4.   The evaluation

Thus named, these components seem to be familiar and easy to capture, but, for our purposes, the challenging issue is to achieve a design in which these elements are coherently combined and collaborate to overcome

- the conception of transmissional teaching and the classic linear sequence that represents it so well

- The instrumental view of technology in education

From this point of view, our design is enlisted in the conception of what is known as "techno-pedagogical design", in which it is the pedagogical that guides technological decisions: "First pedagogy, then technology".

The changing context of today's society demands new ways of discovering and building knowledge, a challenge that higher education faces in the framework of the knowledge and information society. In our days, a wide variety of pedagogical models and regulations have been developed that impact educational scenarios. The new teaching and learning environments are characterized by the informative, practical, communicative and evaluative tutorial dimension (Area and Adell, 2009).

The knowledge society is promoting a culture of lifelong learning given the transience and speed with which information and knowledge is produced and has also exposed that the border between formal and informal education is rapidly blurring. Not everything that is learned is learned in school or in universities. Each person has unequal learning rhythms, styles and capacities and the human being has the ability to teach and learn at any time and in any place.

The school and the university constitute fields of power and social interaction in which "a specialized institution (...) exercises an intentional and organized pedagogical action carried out by specialized agents" (Martín Criado, 2010, p. 19 3-194). If "outside" the school space is another place, another learning space, we must pay attention to it.

Since we learn anytime and anywhere, we should think about the complementarity of formal education and informal education. In the university that "trains" we can learn, abroad we also learn, but are we educated abroad? If we adopt the premise that everything can be learned and everything can be taught, there are various ways of learning and also of teaching. Not everything that is learned is learned in school.

While teaching continues to ask how to incorporate these new literacies, the new generations display a range of possibilities in social and cultural interaction, as well as in the opening of new ways of knowing and seeking information that they need to solve the situations that arise. the daily life.

Table N° 5 Seamless Learning

Seamless Learning

- Learning in the school
- Learning in other places
- Teach to learn
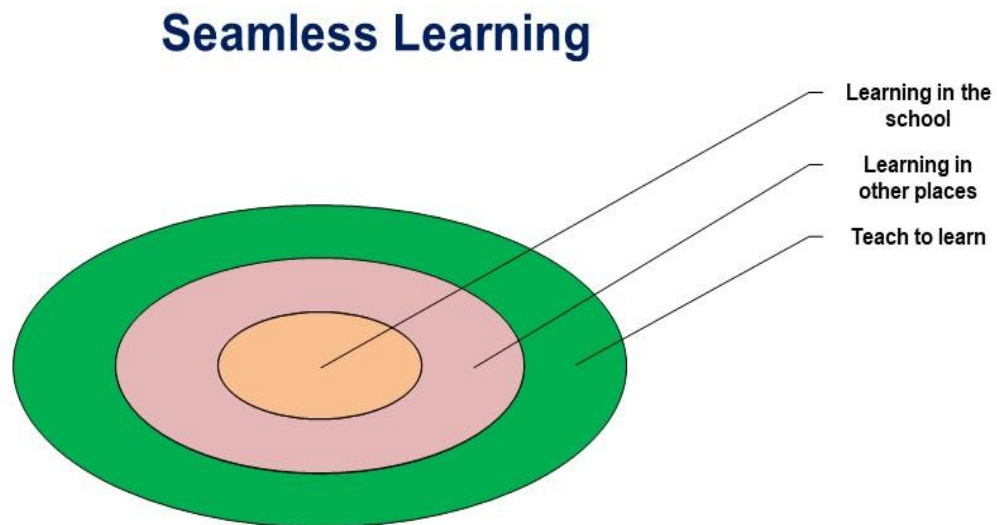
He maintains that delving into new pedagogical and didactic frameworks assumes the possibility of rethinking models from emerging concepts such as "seamless" learning, ubiquity and personal learning environments as fundamental pillars of the new training spaces (Ozollo, 2019).

Begoña Gros maintains that the fall of the walls has made it possible for formal, informal and non-formal education processes to form part of the same framework in which the subject finds and can obtain relationships or objects of knowledge. As we have supported the idea of school-network, we understand that a school that promotes learning in networks, collaborative, collective will enable powerful or seamless teachings.

On the other hand, the processes of technological, cognitive and social convergence are increasing on the one hand due to the emergence of concepts such as ubiquity, portability, open source, etc. But on the other, because of how the subject becomes a subject of construction of collective, collaborative, plural, public, nodal knowledge.

The new millennium brings new challenges since we have the anguish of having lost the certainties about the future that we once had. In this context, it becomes relevant to know the role that the actors themselves play in the construction of utopias, where educating is a permanent appeal to utopia, and because the result of this action can only be known in the future. These seamless pedagogies, their theoretical framework, the conception of a knowledge society from a critical perspective means abandoning reductionisms and allowing broader visions, recognizing the complexity and its limitations such as the different existing gaps: social, economic, educational, technological, etc. They propose the study of pedagogy as a space that takes definitions about: what society, what subject, what institution, what knowledge, how to do it, with

whom, when and for what, among others. In digital culture, it is necessary to analyze if pedagogical constructions have changed and in what sense they have done so.

Often, alternative methodologies are characterized by attempting to implement approaches, educational philosophies and methods specifically focused on improving educational practices, guaranteeing the learning process for all students and critically reflecting on the understanding of the educational phenomenon. Stenhouse had argued that only teachers could save the school by understanding it. Innovative discourses have appeared everywhere in the last twenty years, but if traditional school spaces do not allow creative interaction, one should ask why schools continue to be built with traditional and closed spaces. The architects of the construction companies that build these schools with public money, didn't they find out? Do we need, as Cobo (2018) suggests, another type of educational organization, with other spaces? We postulate that schools interact with the city, that they have bigger windows and wider doors.

Educational innovation and transformation have sometimes happened without having the new information and communication technologies. The traditional classroom, the desk and the blackboard are technologies of their time. We do not need new technologies to continue working with pedagogies from another time or doing the same thing. As Cobo advocates, we must promote self-directed learning and a radical change in education. If we adopt the premise that everything can be learned and everything can be taught, there are various ways of learning and also of teaching. If not everything that is learned is learned at school, there is also the so-called invisible learning.

Invisible Learning is a contribution to the construction of an educational paradigm that is inclusive. Cobo and Moravec (2011) explain that this formulation arises from the impact of technological advances and the transformations of formal, non-formal and informal education, in addition to those intermediate metaspaces. Invisible Learning "does not intend to propose a theory as such, but rather a metatheory capable of integrating different ideas and perspectives. For this reason, it has been described as a

protoparadigm, which is in the beta phase and in the middle of the construction stage" (Cobo and Moravec, 2011, p.23).

Precisely, Cobo (2018) highlights that with the diversification of digital channels, certain knowledge is appreciated and other tacit learning is ignored. He describes how educational systems have traditionally valued certain ways of knowing, but there are other ways of knowing that have been ignored, such as those that have to do with the practice and experience that are learned in informal spaces.

Cobo expresses that there is a tension between those who teach us and what is then needed for work and that self-learning should be encouraged. Much of the student learning arises outside the classroom and obviously also within the school itself. Learning can occur in informal settings, with her friends and personal circle, or where the student reviews her notes. Also working with their peers or talking to the teacher.

The student can learn in a self-taught way, that is, outside the classroom, in other spaces. In the terms of Cobo (2018), self-learning should be promoted even more and that in educational terms we must think about comprehensive changes. We should go towards an education that dialogues with informal spaces and promotes a true cultural change. For this, we rely on the fact that the teachers of the future already exist and that we recognize that there are different ways of knowing that have to do with practice and experience. Larger windows and wider doors are the suggestion that Cobo in the video suggests to educational managers and teachers.

Thome and Quiroga (2015) highlight that in this new society that we are experiencing, distance and online teaching processes have been significantly transformed. With just a click of the mouse you can access hypertexts, navigate through a universe that is opening up more and more and share with your colleagues through chat. The role of the teacher-tutor, who will also perform interactively, has become relevant.

The physical space of the classroom is blurred to give way to the screen, linear teaching to give way to hypertext; school corridors are exchanged for home located pc desk and chair. Access to education people from different cultures, idiosyncrasies, geographies, united by a common interest: learning. The relocation of knowledge brought as a consequence that students and teachers relate to other knowledge and interact with other classrooms, with other possibilities, at any time and place. This unprecedented situation configures new forms of relationship that expand learning environments, even enabling collaboration and empowerment through the use of ICT.

In the knowledge society, learning is not limited to a certain space such as educational institutions, since we can learn in all contexts. In this society, learning is permanent since never before in human history has so much knowledge been produced and generated. It is almost necessary to learn throughout the person's life. Therefore, learning cannot be limited to a certain period of time in the person's life cycle. Educators need to empower students for lifelong learning.

In the knowledge society, students must learn to know what to think and how to act in the face of relevant situations throughout life and be able to do so from reasonable and critical criteria, be sensitive to the changing demands of contexts and develop the reflective, critical and creative thinking (García, 2009).

Moran Oviedo (2004) describes current teaching as those educators who have forgotten, are not interested or do not know how to teach that, in addition to informing, can train students. He points out that despite advances in educational research and teacher training programs in recent years, too often it has become a cold, improvised, mechanical activity. The student usually receives information, accumulates theory, but is not capable of using said theory critically and pertinently, nor of thinking for himself and taking a stand against reality and his own knowledge. The teacher then assumes the leading role and the student the obedient listener, thus disappearing the primary option of dialogue in the act of teaching and learning.

We can say that these teachers still exist, but they coexist in the terms of Cobo (2018) with the teachers of the future. Today teaching and schools face an unstable world, beset by the vertigo of technological transformations. Although the panorama is complex and uncertain, it is also challenging. The rapid technological transformation has an impact on the labor market, on lifestyles and on the hierarchy of skills and abilities.

Rabossi in Gorella (2019) has highlighted that "the old model of heavy skills that are taught to students will not be the skills necessary to survive in a world where the value of work undergoes a great transformation". Rabossi has placed the emphasis on the importance of training professionals who have the ability to innovate, undertake, lead and work as a team. Undoubtedly, the current technological environment is demanding digital fluency and a computational base and demands flexibility, soft skills and learning to learn.

EDUCATIONAL INSTITUTIONS

Education and the school must be transformed and pay attention to the modification and change of the techno-cultural environments in which they live. They must do so in the social, cultural, technological and physical sense. A school of walls can hardly teach. We need open schools, network schools with classrooms with large doors and windows, where curiosity and the desire to learn flow. A school that is a learning interface for both students and teachers. A school imagined as intertextual (Quiroga, 2019) where the technologies of Relationship, Information and Communication (TRIC) are present, the retarchy appears, as one of the organizational options and the understanding and awareness of a school as an interface.

The teacher should be a coordinator of group learning and promote self-learning, recognizing the interests, rhythms and preferences of the students. The school and the educators must recognize the learning potential of the "outside", of the streets and

cities. They must recognize and appreciate the social and lifelong learning that does not only happen in schools and that is later required in the world of work.

Cobo's propositions are still valid that to understand the role of education in the knowledge society some questions such as whether education can respond to the needs of the 21st century and what principles will lead to innovation.

The term open has become widely used in recent years. Longshore and Seward (2017) argue that conceptualizing openness as a social praxis offers several benefits because it provides a way out of a variety of problems that result from ambiguities and misunderstandings while providing a context-sensitive understanding of openness that allows space for different approaches. ways openness is experienced and directs us towards an approach to developing a specific theory of practice that helps build generalizable knowledge about what works, for whom, and in what contexts. Emerging pedagogies arise in the context of the networked knowledge society, they are based on the integration of digital technologies, the exploration and modification of existing pedagogies and the development of new theoretical and practical proposals.

Thus, disruptive alternatives have been developed in current educational scenarios, understood as the opportunity to innovate elements of education, teacher-student roles, study plans, teaching methodologies, evaluations and spaces. The new multi-scenarios are based on theoretical components that range from conventional procedures, such as the transfer and retention of content, to modern guidelines that highlight the interaction between the educator and the student; emphasizing the construction of meaningful learning.

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San Luis, 2022

MANIFESTO FOR THE TRANSFORMATION OF EDUCATION

Publicado en https://acortar.link/80LRhQ

We understand the object of study of education to emotions, body language, cultural gestures, heritage body culture and being over doing.

In this era of digital expansion, the purpose of secondary and higher education is based on contributing to the development of cognitive skills and both general and specific competencies, divergent thinking aimed at the formation of critical citizens and the development of our societies. We think that it is challenging for our own training as teachers, to incorporate research into practice as a tool for their own professionalization.

This need goes beyond current regulations and reflects the difficulty of a task in which it is necessary to take a deeper look to understand it and be able to act on it. It is understood that the educational reality is dynamic and evolutionary and the subjects themselves are the active agents destined to configure and build that reality. The educational reality is not something or little objective that can be apprehended through knowledge outside the subject. Theory and practice form a whole, so it is not possible to speak of universal theories. In this sense, the objective of the theory is the formation of character in the habits of reflection. The object of investigation and the questions related to it are not objective, they always have an axiological load of the prevailing values in society.

We verified that research in teaching practice constitutes a means to respond to the demands of the training itself because it makes it possible to understand and evaluate the teaching and institutional action. These conditions also allow organizational participation, since action research not only makes it possible to reveal

problems but also offers intervention tools to modify them. Action-Research allows the organization to operate systemically, as a whole, its dynamic and complex reality emerges from any of the investigated aspects.

We consider that these possibilities provide us with the possibility of knowing and experiencing the most frequent problems of educational institutions, linked to a historically and socially constructed organizational culture. Culture that constitutes an identity of educational organizations.

We give an account of a praxeological vision oriented to the improvement of practice, the democratization of knowledge in which the researcher is the teacher himself who becomes the generator of change and the interest is focused on the problems close to the educational practice of the classroom. It is also considered in the disruption in education as a rupture or abrupt interruption of the prevailing order, as a series of emerging postulates for the transformation of education. Disruptive educational practices, therefore, are those that seek to break with what is established in order to improve what already exists.

We associate the task of designing teaching (or thinking about teaching) with the trade and with art, because of the creativity that it entails and because of the practical knowledge that we have about the relationships between subjects and knowledge, subjects and technologies, for example, and for the attention to the game of the unpredictable and the open and the unfinished.

In the 1940s, he appears in the United States with Kurt Lewin, who from social psychology tries to establish a form of research that is not limited to producing knowledge, but rather integrates scientific experimentation with social action. Lewin is one of the main representatives of field theory in social psychology. Lewin is concerned with generating changes in the different social institutions. In the development of his work, he warns that -unlike those investigations where there is a divorce between theory

and practice- when the subject of study participates in some way in the investigation, it has better results and the desired changes can be affected.

But in the 1950s, the positivist paradigm reemerged as the only force, becoming the only way of doing science. From this place, criticism arose of other forms of research that were not this search for generalization, for statistical representation of large universes and consequently this epistemological current weakened the incipient beginnings of action research. This proposal is taken up, reformulated and enriched from the educational field in the 1960s in England by Lawrence Stenhouse. At that time, not only was a strong theoretical-methodological impulse given to action-research, but it also had a relevant practice that is reflected in a curricular reform applied and made effective in England through the movement of research teachers.

We adhere to the socio-critical paradigm that postulates that the educational reality is dynamic and evolutionary and that the subjects themselves are the active agents destined to configure and construct that reality. The educational reality is not something objective that can be apprehended through knowledge outside the subject. Theory and practice form a whole, so it is not possible to speak of universal theories. In this sense, the objective of the theory is the formation of character in the habits of reflection and the object of investigation and the questions related to it are not objective, they always have an axiological load of the prevailing values in society.

This is one of the essential and characterizing questions of this paradigm, considering that research is at the service of political interests, and therefore, it is not possible to speak of neutrality in research.

Manifest: https://shorten.link/80LRhQ

We can

The world can be happier
if we do it
we can dream
So let's not waste time
you can change education
you can change the world
we can change education
We can change the world
Everyone expects a positive change.
We can

Sergio Quiroga (2022)

Educators,
there are happy moments,
that we live every day,
when we teach and learn,
from when the sun rises,
until a good noon from,
the vigorous gleams of the evening sun,
sleepy sunsets,
and until the night comes.
Where are your joy?
you must not miss with it,
we learn better
teachers, let's understand the school,
we are an engine of change,
a transformation pulley.
With our critical force,
with our best efforts.
It's the moment

Sergio Quiroga (2022)

GAME AND EDUCATIONAL DISRUPTION

It is beneficial for students to carry out educational experiences in which the game is incorporated as an unconventional pedagogical tool with the purpose of promoting deep learning. The game is a useful instrument and promotes dialogue between the participants in an educational process, a resource that optimizes the task of the teacher in the classroom. When we play, we also incorporate our personality, our self-esteem and our way of being that constitutes our playful personality that will be reflected later in the ability to resolve the various situations that arise, since if self-esteem is high, it will be easier to solve. the challenges or face the different options and paths that life in society proposes.

With the progressive socialization of the network of networks and the appearance of increasingly smaller devices with great connection capacity, the advancement of education in digital media has increased the interest of teachers in the use of video games as an instrument non-traditional learning. In a time of multiplication of screens, video games continue to reshape entertainment and society includes them in all their variety: mobile, social and casual games. Gross Salvat (2000, p. 1) highlights that "in the last decade, video games have managed to occupy an important place in the lives of children and adolescents" and those electronic games are used in various groups such as young children, youth, and adults. For Gross Salvat (2000) one cannot speak only of digital games but of digital games with their multiple genres and formats.

The game of chess has become a tool that can be of great value from the pedagogical point of view, but also as an instrument for the development of strategic planning. The presence of the game in schools is the presence of pleasure and fun, of liberated time and chess, being a complex and entertaining game, is fully adapted to schools as a hierarchical partner of school disciplines. New technologies and the Internet make it possible to expand the possibilities of teaching and learning, but this can only be

done with extensive training of educators in pedagogy, chess and computer management (Quiroga, 2011).

Simon Egenfeldt-Nielsen examines game analysis theories such as ludology and narratology and explores the aesthetics of games, assesses the cultural position of video games, and considers the potential effects of violent and "serious" games. In our classrooms we should promote dialogue and social conversation. That is, according to Jesper, in trying to promote the conversational adventure. According to Jesper (1998) the "conversational adventure" is "an attempt to combine games and storytelling. This combination sounds extremely appealing, and is often described as the best of both worlds, where the deeply focused reader/player can participate in a story that unfolds in new and increasingly interesting patterns" (Jesper, 1998, p. . two). The author emphasizes that video games are not narrative stories, although many video games include a narrative or narrative elements. Jesper (1998) clarifies that "narrative tends to be isolated from them, and sometimes even goes against what makes them videogames" (Jesper, 1998, p. 1).

The game and the construction of the educational message. The game aims to promote the following skills in students:

- Encourages oral and written expression.
- Develop problem-solving skills.
- Enhances the ability to make hypotheses.
- Promotes the analysis of reality and the environment.
- Promotes inclusive, equitable, quality education and new learning opportunities.

On the other hand, we are witnessing a proliferation of new ways of telling, of new narratives. Fainholc (2004) highlights that the new narratives constitute "the symbolic scaffolding that allows the construction of rich representations created by the digital language from which they start". That is, they make up a structure, a skeleton that ICTs provide for:

"encourage the creation of new meanings, cultural products, diverse documents, etc…allowing the linking of texts, of diverse content such as texts, still and video images, audio and music, animation, etc., presented in the form of "dot" documents .doc", jpg, rtf, etc. and then make up CDROM and if they are in connectivity, the Internet pages and sites, which present and distribute this rich and enormous capacity of information" (Fainholc, 2004, p. 7).

Knowledge areas

● Communication: The communicative skills (paralinguistic, cultural, ideological, technological), which predominate in the first part of the film. The humanization and dehumanization of the process of interaction between human beings in the second part of the film, the importance of goals and empathy. assertive communication, etc.

● Technology: Identification of the technological changes that produced significant advances in technological artifacts, especially during the 20th//21st centuries, fundamentally from the search for the care of the urban environment and the quality of life of its inhabitants. Assessment of the application of sustainable technologies to reduce the harmful effects of environmental pollution. Identification of the characteristics of everyday objects according to their functions and the changes evidenced over time.

THEORETICAL FOUNDATION

Martin Barbero perceives that with the disorganization of knowledge and the changes in the ways of narrating there has been a cracking of "the school molds of sensitivity, reflexivity and creativity, placing in a strategic place the widening of the ways of feeling. and of thinking, as well as the articulation between logic and intuition" (Martin Barbero, 2002, p.1). With the progressive socialization of the network of networks and the appearance of increasingly smaller devices with great connection

capacity, the advancement of education in digital media has increased the interest of teachers in the use of video games as an instrument non-traditional learning.

According to Scolari, the introduction of a new medium generally does not cause the elimination of existing media, and although a technical device may be surpassed by others, "languages and meaning systems do not disappear" (Scolari, 2009, p. 49). Contamination of one medium with another exposes remediation processes. For de Bolter and Grusin (2000), remediation consists of the "representation of a medium within another medium" (2000, p. 45) and is similar in terms of Scolari (2009) to what we call "convergence, but with another Name". The idea of Bolter and Grusin feeds on the widespread postulates of the Canadian researcher Marshall McLuhan, who expressed that "the content of a medium is always another medium" (Scolari, 2009, p. 50). According to Martin Barbero (2002), the place of culture in society is transformed when the technological mediation of communication ceases to be instrumental and begins to thicken, densify and become structural. It is the technology that today allows new modes of perception and language, new sensitivities and writings.

As we described earlier, we are witnessing a proliferation of new ways of telling, of new narratives, new symbolic scaffolding, new representations that are interconnected or allow connectivity, Fainholc (2004). Kaplun (2004), classifies the construction of educational messages into three axes: the conceptual, the pedagogical and the communicational axis. The first refers to the contents, their selection and organization, the second implies an analysis of the recipients of the message, for which we propose to identify their constructive ideas and the possible conceptual conflicts to provoke and the third proposes, through some type of figure rhetorical or poetic, a specific way of relating to the addressees. According to Kaplun, the pedagogical axis is the articulator of the other two, although the relationship between them is dynamic and mutually interdependent. In our classrooms we should promote dialogue and social conversation. That is, and according to Jesper, in trying to promote the conversational adventure that is

an attempt to combine games and storytelling. Interaction with technologies becomes interactive communication, semiotic convergence (Scolari, 2009) with its processes of contamination and hybridization that occur at the level of consumption and production of media ecology, challenges us as teachers about the use of learning experiences that are more real and closer to those new consumption habits and ways of relating that the technology and culture of our time are proposing.

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A METHODOLOGY FOR UNDERSTANDING THE SOCIAL SCIENCES

A RUCK methodology for understanding the social sciences must bring together in the teaching and learning processes the investigation of the topics, the critical and divergent thinking that emerges from the investigation, the understanding of the basic and/or problematic nuclei and the production of new knowledge.

VALUES I

A Research

C Understanding

B Critical Thinking

D Knowledge
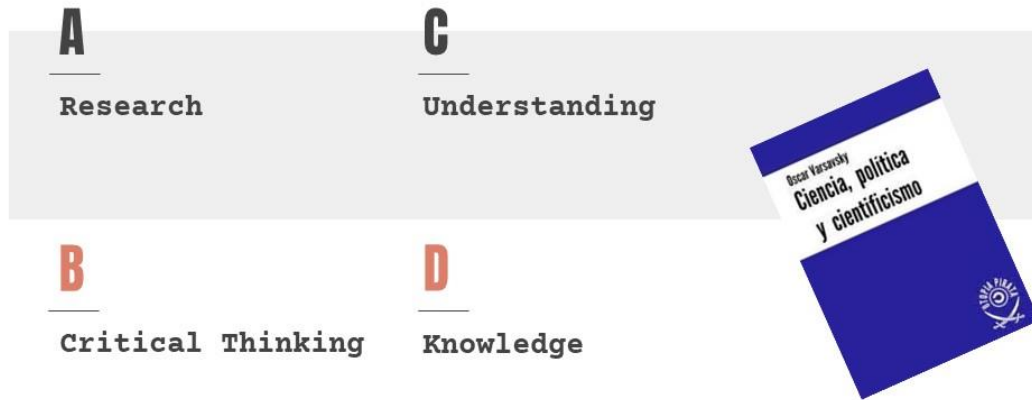
It is about provoking the student to participate and become fully involved in the learning process. The participatory and dialogical nature proposed by the IECC methodology can generate lasting and significant learning in students.

UNIMAGINABLE SCHOOLS

In our social imaginary the idea has been imposed that to learn and to teach, the school is necessary. The obvious is not usually demonstrated: in our society, the school field is the natural setting for education.

Do we really need school to learn? On the other hand, the knowledge society is promoting a culture of lifelong learning given the transience and speed with which information and knowledge is produced and has also exposed that the border between formal and informal education is rapidly blurring. Not everything that is learned is learned in school. Each person has unequal learning rhythms, styles and capacities and the human being has the ability to teach and learn at any time and in any place

The school is a field of power and social interaction in which "a specialized institution (...) exercises an intentional and organized pedagogical action carried out by specialized agents" (Martín Criado, 2010p. 193-194). If "outside" the school space is

another place, another learning space, we must pay attention to it. Diaz (2009, p.54) states that "if the inside is the rule (what we are); the outside is the exceptional (what we can be)". So, our expansion "outwards is negotiating the conflict between what we are and what we can be. The outside could be a space in which we count and are taken into account, not based on who we are, but on what happens (to us). Delgado (2007) highlights precisely that the requirement to inhabit the outside excludes being, excludes being.

Outside is the street full of conflict and where the different actors are in conflict, in the attempt to impose their worldviews through an appropriation of urban land. The mobility of the city can be replaced by a group mobilization that expresses social empowerment (Delgado, 2007).

Outside, there is the city, but what city is there outside? Precisely Manuel Delgado describes in the book Sociedades quickizas. Steps towards an anthropology of the streets, an approach towards an anthropology of the streets, of the urban experience, distinguishing between the polis and the urbs. The first would correspond to the city conceived, designed and projected by the different bodies: politicians, architects, urban planners, etc., while the second would be the city practiced, used, strolled. These two entities would be in conflict, with the polis exercising a permanent control attempt to subdue and impose itself on the urban area, which the latter resists due to its own intrinsic characteristics (Díaz, 2009).

Since we learn anytime and anywhere, we should think about the complementarity of formal education and informal education. In the school that "educates" we can learn, outside we also learn, but are we educated outside? If we adopt the premise that everything can be learned and everything can be taught, there are various ways of learning and also of teaching. Not everything that is learned is learned in school.

ALTERNATIVE SCHOOLS

As a teacher concerned with educational issues, I have sometimes wondered if an educational system other than the official school or traditional system is possible. If there is an alternative school, with a non-formal education system that is capable of offering a different type of response to the prevailing educational methodologies today.

Often, alternative methodologies are characterized by attempting to implement approaches, educational philosophies and methods specifically focused on improving educational practices, guaranteeing the learning process for all students and critically reflecting on the understanding of the educational phenomenon. Stenhouse had argued that only teachers could save the school by understanding it. Innovative discourses have appeared everywhere in the last twenty years, but if traditional school spaces do not allow creative interaction, one should ask why schools continue to be built with traditional and closed spaces. The architects of the construction companies that build these schools with public money, didn't they find out? We need, as Cobo (2018) suggests, other types of schools, with other spaces. A school that interacts with the city, with larger windows and wider doors.

There are many alternative schools, which the literature usually describes. The literature usually mentions the Waldof Schools (Steiner) based on the principles of self-realization with educational practices and individualized attention, the Montessori Schools, which came to renew the idea of teaching based on the cognitive system of children and highlighting the importance of the context, the Regio Emilio Schools promoted in the 50s with sensitive contributions in the assessment of the i Research and in the creation of different educational environments and Changemaker Schools (making changes) that seek social transformation by promoting creativity and the entrepreneurial spirit of students.

Educational innovation and transformation have sometimes happened without having the new information and communication technologies. The traditional classroom, the desk and the blackboard are technologies of their time. We do not need new technologies to continue working with pedagogies from another time. As Cobo advocates, we must promote self-directed learning and a radical change in education.

INFORMAL PLACES OF LEARNING.

If we adopt the premise that everything can be learned and everything can be taught, there are various ways of learning and also of teaching. If not everything that is learned is learned at school, there is also the so-called invisible learning.

Invisible Learning is a contribution to the construction of an educational paradigm that is inclusive. Cobo and Moravec (2011) explain that this formulation arises from the impact of technological advances and the transformations of formal, non-formal and informal education, in addition to those intermediate metaspaces. Invisible Learning "does not intend to propose a theory as such, but rather a metatheory capable of integrating different ideas and perspectives. For this reason, it has been described as a protoparadigm, which is in the beta phase and in full construction stage" (Cobo and Moravec, 2011:23).

Precisely, Cobo (2018) highlights that with the diversification of digital channels, certain knowledge is appreciated and other tacit learning is ignored. He describes how educational systems have traditionally valued certain ways of knowing but there are other ways of knowing that have been ignored, such as those that have to do with the practice and experience that are learned in informal spaces.

Cobo expresses that there is a tension between those who teach us and what is then needed for work and that self-learning should be encouraged. Much of student learning arises outside the classroom and also within the school itself. Learning can

occur in informal settings, with her friends and personal circle, or where the student reviews her notes. Also working with their peers or talking to the teacher.

The student can learn in a self-taught way, that is, outside the classroom, in other spaces. In the terms of Cobo (2018), self-learning should be promoted even more and that in educational terms we must think of comprehensive 360-degree changes. We should go towards an education that dialogues with informal spaces and promotes a true cultural change. For this, we count on the fact that the teachers of the future already exist and that we recognize that there are different ways of knowing that have to do with practice and experience. Larger windows and wider doors are the suggestion that Cobo in the video suggests to educational managers and teachers.

THE RELOCATION OF KNOWLEDGE AND THE UBIQUITY MADE POSSIBLE BY NEW TECHNOLOGIES

Thome and Quiroga (2015) highlight that in this new society that we are experiencing, distance and online teaching processes have been significantly transformed. With just a click of the mouse you can access hypertexts, navigate through a universe that is opening up more and more and share with your colleagues through chat. The role of the teacher-tutor, who will also perform interactively, has become relevant.

The physical space of the classroom is blurred to make way for the screen; linear teaching to give rise to hypertext; school corridors are exchanged for home located pc desk and chair. People from different cultures and geographies access education, united by a common interest: learning.

The relocation of knowledge brought as a consequence that students and teachers relate to other knowledge and interact with the outside of the classroom, at any time and place. This unprecedented situation configures new forms of relationship that expand

learning environments, even enabling collaboration and empowerment through the use of ICT.

THE NEW ARCHITECTURES THAT ENABLE THE NECESSARY LEARNING FOR THE CONTEMPORARY WORLD

In the knowledge society, learning is not limited to a certain space such as educational institutions, since we can learn in all contexts. In this society, learning is permanent since never before in human history has so much knowledge been produced and generated. It is almost necessary to learn throughout the person's life. Therefore, learning cannot be limited to a certain period of time in the person's life cycle. Educators need to empower students to learn heh permanent

In the knowledge society, students must learn to know what to think and how to act in the face of relevant situations throughout life and be able to do so from reasonable and critical criteria, be sensitive to the changing demands of contexts and develop the reflective, critical and creative thinking (Garcia, 2009).

SPECULATIONS ABOUT THE TEACHER AND STUDENT OF THE FUTURE

Moran Oviedo (2004) describes current teaching as those educators who have forgotten, are not interested or do not know how to teach that, in addition to informing, can train students. He points out that despite advances in educational research and teacher training programs in recent years, too often it has become a cold, improvised, mechanical activity. The student usually receives information, accumulates theory, but is not capable of using said theory critically and pertinently, nor of thinking for himself and taking a stand against reality and his own knowledge. The teacher then assumes the leading role

and the student the obedient listener, thus disappearing the primary option of dialogue in the act of teaching and learning.

We can say, without fear of being wrong, that these teachers still exist, but they coexist in the terms of Cobo (2018) with the teachers of the future. Today teaching and schools face an unstable world, beset by the vertigo of technological transformations. Although the panorama is complex and uncertain, it is also challenging. The rapid technological transformation has an impact on the labor market, on lifestyles and on the hierarchy of skills and abilities.

Rabossi in Gorella (2019) has highlighted that "the old model of heavy skills that are taught to students will not be the skills necessary to survive in a world where the value of work undergoes a great transformation". Rabossi has placed the emphasis on the importance of training professionals who have the ability to innovate, undertake, lead and work as a team.

Undoubtedly, the current technological environment is demanding digital fluency and a computational base and demands flexibility, soft skills and learning to learn.

Educational institutions both in their roles and in their physical configurations

Education and school must be transformed. They must do it in the social and physical sense. A school of walls can hardly teach. We need open schools, network schools with classrooms with large doors and windows, where curiosity and the desire to learn flow. A school that is a learning interface for both students and teachers. A school imagined as intertextual (Quiroga, 2019) where the technologies of Relationship, Information and Communication (TRIC) are present, the netarchy as one of the organizational options and the understanding and awareness of a school as an interface.

The teacher should be a coordinator of group learning and promote self-learning, recognizing the interests, rhythms and preferences of the students. The school and the educators must recognize the learning potential of the "outside", of the streets and cities.

They must recognize and appreciate the social and lifelong learning that does not only happen in schools and that is later required in the world of work.

Cobo's propositions are still valid that to understand the role of education in the knowledge society some questions such as whether education can respond to the needs of the 21st century and what principles will lead to innovation. The term open has become widely used in recent years. Longshore and Seward (2017) argue that conceptualizing openness as a social praxis offers several benefits because it provides a way out of a variety of problems that result from ambiguities and misunderstandings while providing a context-sensitive understanding of openness that allows space for different approaches. ways openness is experienced and directs us towards an approach to developing a specific theory of practice that helps build generalizable knowledge about what works, for whom, and in what contexts.

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SCHOOL-NETWORK, INTERFAX AND INTERTEXTUAL

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1. Introduction

This proposal tries to characterize a network school, conceived as an interface in the broad idea of this term proposed by Scolari (2008), the Technologies of Relationship, Information and Communication by Marta-Lazo (2015) and the idea of redarchy. de Márquez (2008, 2011) and that it is also a concept that serves to examine and characterize all organizations.

In the case of a school-network, it includes educational technology in the educational system and goes beyond the school of walls. It is about conceiving a school-network, a democratic school that goes from analogical media such as chalk and blackboard to immersive environments, to video games, to the narratives of film and television fiction and cell phones.

A school conceived as an interface allows us to consider it from an eco-evolutionary perspective to understand its relationships, processes and transformations. The school-network reconceives teaching with curricular engines, collective productions, social interventions and ecological evaluations. With the use of learning networks (Learning Networks) as online social media, users share information and collaborate to create knowledge, understanding that without research there is no knowledge and without knowledge there is no innovation.

Cháidez Nevárez (2019) has highlighted that a bureaucratic school has established relationships, which are generally manipulative and always hierarchical and as a process defines a certain way of considering social relationships in terms of institutional

functions, which means that individuals are isolated from each other, substituting spontaneous interaction for formal associations.

Nevárez (2019) also points out that the democratic school has decision structures that allow and stimulate the significant participation of all its members, with three characteristics: people must constitute a community where they share and are able to negotiate the beliefs and values that unite them, the second, the character of the relations between the members should not be of a manipulative nature, and the last, is that the relations between its members be reciprocal and of mutual help.

In a time of proliferation of technological devices that were and are conceived in such a way that they are not only necessary but also desirable for their objective benefits, for the promises they make, in the imaginary they build about their possibilities and potentialities and their aesthetic value. Devices that, due to their usability and their friendly environment, become something valuable and essential due to their contributions, turning human beings into device-dependents, since the device, as a mediator between the perception of reality and reality, complicates and expands the experience expanding the natural ability of people to relate to their environment (Caminos and other authors, 2018). Rainie and Wellman in their text Networked (2012) offer an interesting and unique vision of how sociability has changed in recent decades due not only to the spread of the Web as such, but also to the evolution of the wireless connection and the establishment of innovative interaction patterns in digital environments.

2.- School-Interface

Lakoff and Johnson (1991) argued long before the appearance of the Internet that metaphors could be found in almost all areas of everyday life. Some that have an instrumental function, were described by Marshall McLuhan "man has long been engaged in enlarging one or another of his sensory organs to extend the reach of human

organs" (McLuhan, 1997, p. 163). The metaphor allows "understanding an idea or a conceptual domain in terms of another...and they are invisible" (Scolari, 2018:21).

People interact with each technology through interfaces. Scolari (2004) states that the use of an interactive device not only transforms the subjects that participate in the interaction, but also different dimensions of the medium in which the subject acts. According to the author, the most important impact of technologies is found outside of them, in the issues of the environment that they manage to activate and transform. The conversation turned out to be the metaphor of human-machine interaction, even when hardware development only allowed for small monochrome screens that enabled scarce writing, and each interface implicitly has an "imagined user" by designers (Spiegel, 2013). Marshall McLuhan pointed out that "the individual and social consequences of any medium, that is, of any of our extensions, result from the new scale that any extension or new technology introduces into our affairs" (McLuhan, 2009:31).

The successive appearance and integration of digital technologies in different areas of social life and especially in education with a rapid expansion through access to devices and growing connectivity, such as through the expansion of digital content and electronic learning, It allows us the possibility of considering a school as an interface in a broad conception outlined by Scolari (2018), an analysis that serves to examine all organizations.

The school that recovers, finds and practices in that space made up of the Technologies of Relationship, Information and Communication by Marta-Lazo (2015), the idea of redarchy by Márquez (2008, 2011) the concept of interface by Scolari (2018) is closer to being a school-network. Scolari (2018) proposes to examine the interfaces from an eco-evolutionary perspective to understand their relationships, processes and transformations and proposes a model of technological change that dialogues amicably with the models of biological change but that, at the same time, can be applied to other spheres.

Diagram N° 1 School-Network (created by the author)
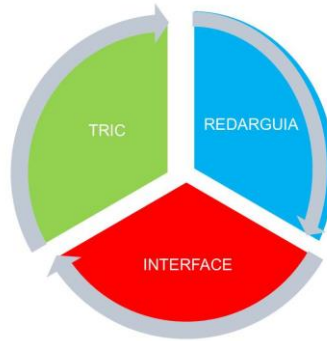
The school organization is a space where tensions and conflicts present in society, technologies, struggles for power come together and trying to conceive and understand a school as an interface is a suggestive idea. The school conceived in this way is made up of a network of human and technological actors that interact and maintain different types of relationships with each other. The human actors can be individual or institutional, but the interfaces do not live in isolation since they maintain a permanent exchange between them (Scolari, 2008).

3.- The intertextual school

With the advent of the digital revolution, teaching that was based on the use of pencil, paper, blackboard and books quickly became obsolete. In the 21st century, with the expansion of the digital revolution to all areas of daily life, education is significantly undergoing a progressive transformation towards processes that abandon traditional paper and pencil in favor of the touch screen, collaboration and the keyboard. .

Rueda Ortiz (2010) states that from the field of information technology, hypertext appears as a technological device, a software, that allows interaction between information nodes of different kinds: text, graphics, videos, sounds.

The first manifestations of transmedia were registered in 1991 when Marsha Kinder published her research on transmedia intertextuality and began to use the term to characterize entertainment formats, such as Nintendo products and the Teenage Mutant Ninja Turtles. Kinder used expressions such as transmedia intertextuality or transmedia supersystem to describe a network that brought together and related different modes of image production, different generations of audiences, and subcultures. In 2003, an article by Henry Jenkins would pave the way for the popularization of the term transmedia as a technique for explaining stories from multiple angles, in multiple ways and through different media.

Jenking (2008) described transmedia as the coordinated use of storytelling across multiple platforms in such a way that they offer users a new, more compelling perspective on characters. Transmedia can be defined as "a narrative story -narrative world-, so large that it does not fit on a single platform and expands, needs to expand, through different platforms and formats -both self-referential-, building an enveloping, immersive, integrating and participatory" (Jenkings, 2008:33). In his book "Convergence Culture" Jenkins names and spreads the term "transmedia storytelling".

The transmedia forced an approach and analysis not only narrative, but also anthropological (Scolari, 2008) since in this phenomenon the users (previously audiences) assume a fundamental role for the transmedia expansion, updating the proposal made by Kinder (1991) that he spoke of commercial supersystems of transmedia intertextuality.

Galán Ugartemendía, (2012) describes the characteristics of transmedia narrative or transmediality as a complex, dynamic and open, multifactorial and multivariable narrative system, a narrative formula of the different revisions of modernity, a

connected, collaborative and immersive narrative that redefines the subject-object relationship and a narrative that emerged at the beginning of the 21st century as a result of the media convergence that entails the modification of the productive and organizational formulas of society.

In *Networked: The New Social Operating System,* authors Lee Rainie and Barry Wellman (2012) examined the application of network theories to different levels of social experience, concluding that the digital network is the operating system of contemporary society. The text points out that human beings organized by networks make up a new social operating system. The authors affirm that there have been three revolutions: the rise of social networks, the consolidation of the Internet, the always-on connectivity of mobile devices (increasingly smaller) that have contributed to shaping a new social order "a system operative" that combines technical possibilities and daily practices. Social networks have always existed but they increased exponentially from the development of transport and communication technologies such as the Internet, a disruptive social technology (Rainie and Wellman, 2012, p. 59).
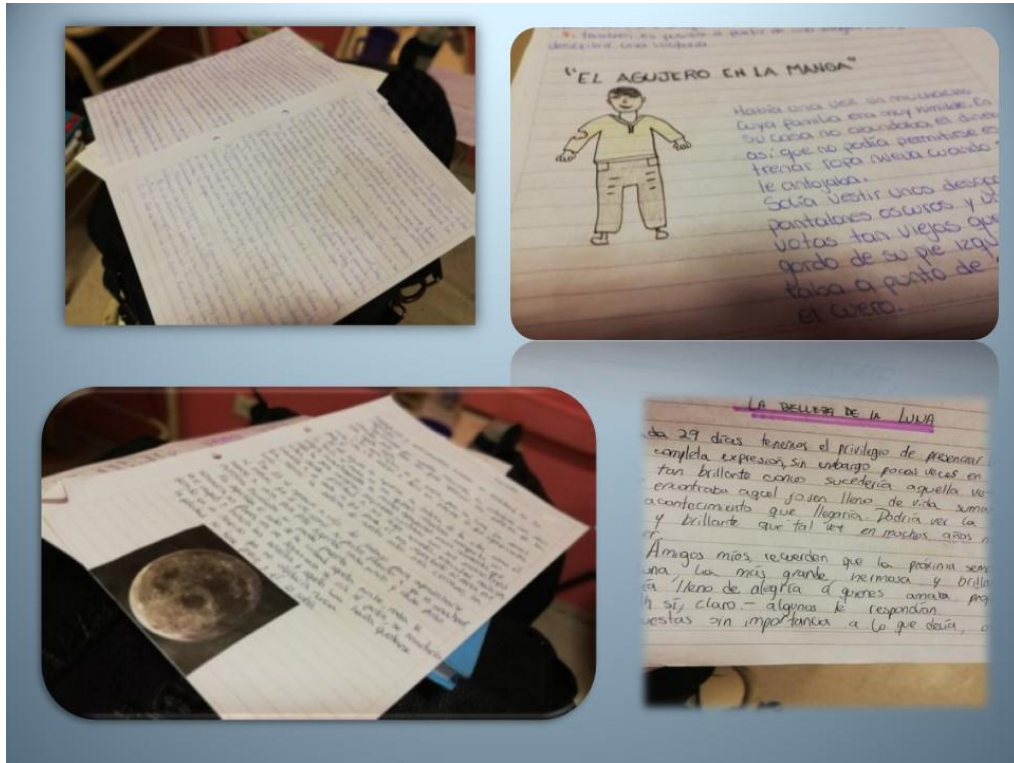
If society before was organized from small groups to complex administrative hierarchies, now we live in the era of interconnected individuals. Although traditionally people have thought that they are organized in groups, in reality people organize themselves in networks. We are networked individuals. We live segmented into different social networks that overlap and provide us with a base to give meaning to our lives. This "operating system" offers new ways to solve problems s and satisfy social needs (Rainie and Wellman, 2012), since the Internet is a disruptive social technology (Rainie and Wellman, 2012, p. 59) that accelerated the interconnection between individuals. Mobile communication added the missing component: the ubiquity of network access and the spread of mobile devices is helping to close a portion of the digital divide (Rainie and Wellman, 2012, p. 87).

4.- TRIC

The "Relational Factor" contained in the TRIC (Relationship, Information and Communication Technologies) in Gabelas, Marta-Lazo and Aranda (2012) symbolizes the interaction, co-creation, reflection and, ultimately, the digital humanism that it should impregnate the online edu-communicative process. Faced with new perspectives that deepen the understanding of the TRIC, in the field of education we live with ambiguous (Quiroga, Baldi, 2016) and bureaucratic schools, characterized as those that coexist between the traditional structure, enclosed within walls and those that try to penetrate in the new paradigm of networks, they promote openness and innovation but need to be redesigned towards a new school-interface (Scolari, 2018).

The process that linked the personal computer to the digital network was historically fast and global in territorial terms (Rainie and Wellman, 2012, p.59). Although the different subcultures that converged at the origin of the Internet prevented the fragmentation of the network, accelerating the digitization processes.

5.- Digitization

Digitization can be characterized as "a process through which electrical signals pass from an analog domain to a binary one" (Scolari, 2008, p. 80). Without digitalization there would be no hypertext, no interaction, Scolari (2018) points out and describes that the new forms of communication differ from the traditional ones in terms of:

- Technological transformation (digitalization)
- Many-to-many configuration (reticularity)
- Non-sequential textual structures (hypertextuality)
- Convergence of media and languages (multimediality)
- Active participation of users (interactivity) (Scolari, 2008, p. 78).

Digitization, reticularity, hypertextuality, multimediality, interactivity and collaborative culture, and networked individualism are today characteristic of our societies.

6.- TRIC

The persistent development of Relationship, Information and Communication Technologies (TRIC) and the new characteristics of our societies have made it possible to create new learning scenarios, where it is possible to quickly obtain information, transform it into knowledge and make it available for be shared. The TRICs serve as means for citizen empowerment, through personal appropriation, the exchange of messages and collective strengthening, with a community dimension, sensitive to the development of life skills (Marta-Lazo and Gabelas, 2016), despite the figure of "networked individualism" a central concept proposed by Wellman in recent years.

The progressive and slow introduction of technologies in the educational context in Argentina has been faced with a scarce and poor use, the little use of computers and the Internet to support learning, on the one hand, and a redefinition of teaching functions and of the teaching-learning process on the other. These phenomena affect the organization of the school and its resources, the dynamics of the classroom, the role of students in class, innovation in teaching methodologies, etc. Innovation in schools, as in other areas, will only be possible if knowledge is first produced through research, which is necessary to face innovation processes.

The teacher has been and is an irreplaceable actor in the development of a quality education that has as horizons a better life and the training of a few thousand teachers per year in new technologies, has not been able to generate in the Argentine context, a mass criticism that provokes a true educational transformation, which was promoted with government initiatives (Quiroga, 2014). In Argentine schools, the Connect Equality Program implemented between 2010-2015, different actions such as the distribution of

thousands of computers in secondary schools, teacher training (Specialization in Education and ICT) and some of the Argentine provinces accompanied this effort with the delivery of computers in primary school (Quiroga, 2014). On the other hand, the difficulties of integrating new technologies in education were limiting for their use in educational settings. The schools and those who led them were not up to the ambitious commitment of the provincial and national states and, like most proposals for educational innovation, they usually die in the classroom. On the other hand, teacher salaries in Argentina depend on each province and there is too much disparity between them.

As Spiegel (2013), a scholar of Information and Communication Technologies and the school, points out, mass physical access to keyboards and screens at school was, first of all, a priority concern of the market for computer products. Argentine teachers with different salary levels in Argentina and ambiguous, disjointed, and outdated training received a fragmented, opaque, and contradictory discourse from ICTs (Spiegel, 2013) that generated feelings of discomfort, bewilderment, and weakness. On the one hand, the national and provincial education laws highlight the importance and compulsory nature of ICT in teaching, and on the other hand, there were no curricular designs for this area.

The radical transformations that the Argentine school must generate should happen with the practice of a renewed social conversation through democratic processes among all the actors and where consensus arises that point to conceptions of expanded education, quality of dialogues and communication, promotion of a higher quality education and generation of opportunities for change to improve people's lives. The changes that must be generated respecting the different views, reflections and proposals must focus on improving teacher salaries, permanent training, and the progressive use of exponential and disruptive technologies. For this, it is necessary to have management leadership that opts for flexibility, transversality and the school redarchy (Cabrera).

7.- The Relational Factor

The "Relational Factor" concept of Marta-Lazo and Gabelas (2016) have created, constitutes a transversal axis that connects the uses, consumption and interactions of the participants in the Network Society. Technology in itself is nothing, since it has that being at the service of men and women must be used and that idea is called "digital humanism".

Marta Lazo points out that educommunication has made it possible to create bridges to take advantage of the potential of the Relational Factor of communication in education and the possibilities and educational resources in the field of communication, since it allows the development of digital skills by expanding the interactions between the subject and screen. The "Relational Factor" contained in the TRIC (Relationship, Information and Communication Technologies) (Gabelas, Marta-Lazo and Aranda, 2012) symbolizes the interaction, (co) creation, reflection and, ultimately, digital humanism that must impregnate the educommunicative process in Network.

The netarchy appears as an emerging organizational model characteristic of the new open collaboration networks and is based on the interactions that various agents (actors?) maintain with each other when they share their creativity, talent and knowledge openly and transparently, in equal relationships. to the same

On the other hand, the redarchy is a superior and transformative organizational model opposed to the traditional hierarchical and vertical organizational model where decisions flow from the top down. The idea of redarchy was defined for the first time by José Cabrera (blog) and constitutes a new order that works from the bottom up and where analyses, decisions, proposals and solutions emerge as a powerful construction of collective intelligence. In Latin America, the concept of leadership was introduced and developed by Marcelo Márquez in his works: Leadership, team management and leadership (2011) and Talent Management, the challenge of managing the essence

(2009). The network appears as a natural structure of new network organizations, understanding and facilitating innovation.

The integration of digital technologies in different spheres of social life through access to increasingly smaller devices with great connectivity together with the expansion of digital content and electronic learning and Carlos Scolari's broad idea of interface makes us consider the idea of a school-network. A school away from bureaucratic canons and confinement. It is an open organization, a school-network conceived as an interface.

Scolari has highlighted that a means of communication results in an interface between the citizen and the news, it was an informative interface of the Industrial Revolution and industrial society. Today we are heading towards a post-industrial society where all the interfaces designed during industrial society, political parties, unions, schools, are all institutions that are creaking today, and that need to be redesigned (Scolari, 2008).

The methodology to analyze interfaces proposed by Scolari (2018), understands the "interface" as a network of human and technological actors that maintain relationships and evolve. In the path of analysis of an interface, Scolari suggests starting with the different elements that make up a set. If the interface is a network of human and technological actors that interact and maintain different types of relationships, it is necessary to start with those actors.

The plan proposed by Scolari (2019) for the analysis of an organization as an interface is as follows:

1) the identification in technological and human, individual or institutional actors of an interface,

2) identification of the relationships that unite them and subsequently the processes, those sequences of operations or events that unfold over time (Scolari, 2019).

8.- Connections

Is it also possible to connect the ideas of what is called "Relational Factor" by Marta-Lazo contained in the TRIC (Relationship, Information and Communication Technologies), interface Scolari (2018) with the concept of redarchy of Cabrera?

The interface has always been with us, Scolari points out, it is a network of humans that interact with each other, and that can range from a social organization (the school, for example) to a simple tool. Scolari (2008) has led to a broad conception of the concept of interface thought of as a small network of technological human actors that interact, and from this perspective we can think: the school as an interface, and education is an interface.

Redarchic schools, schools considered as an interface, those that deploy their organizational resources can advance in the inclusion of new learning, the use of new technologies and pay progressive attention to topics on drones, robotics, virtual reality, blockchain, neuroscience, big data, urban planning and in the experiences and knowledge of the entrepreneurial world.

Creative managers and transformative teachers should think of a school-interface, an organization that is rich in interactions and interconnections between the different actors (individual, institutional and technological humans) and more networked. Information and relationship technologies (TRIC), Cabrera's idea of netarchy and the interface conception make it possible to think of the existence of a school-network.

The value of technology is understood from the use that students give to it and every project based on the integration of ICT in the school must resolve how new technologies are applied in the classroom (planning) and how there is a change in the teaching methodology. The introduction of ICT in the school begins with planning and implies changes in the organization. These transformations can be profound and range

from the organization to the grouping of students. A strategic issue to establish and formulate is the present questions: does the layout of the classrooms facilitate learning through ICT? Are the teachers prepared? Is the organization of the students the most appropriate? Are the available resources the most appropriate?

On the one hand, teachers must be able to handle ICT adequately and pedagogically and combine traditional methodologies with innovative forms of teaching. It often happens that initiatives to implement technologies in the classroom fail, in part, due to four possible difficulties: 1) the lack of conversation and dialogue between school actors, 2) the use of different languages between teachers and students, 3) the lack technological culture of directors and teachers and 4) the lack of adaptation of digital content to the needs of the teacher. Training in ICT and in other aspects of teachers must enable educators to acquire the skills and competencies that are needed today to achieve a transformative education, to make the most of the possibilities of technology in the educational context, to promote the need to create or learn new teaching methodologies and introduce and test them in the teaching-learning process

Innovating with ICT means adopting new teaching methodologies that promote and encourage collaborative learning and a student-centered way of teaching. ICT and social networks offer various collaborative tools that facilitate educational interaction for teachers and students. It is about solving how new technologies are applied in the classroom (planning), how it is directed towards the training and updating of teachers and how the change in teaching methodology occurs. The integration of new technologies is becoming more visible every day, not only through the use of new devices but also through the proliferation of content that is accessible through computers, mobile phones, etc.

Diagram N° 3 Interface-TRIC-Redarchy (created by the author)
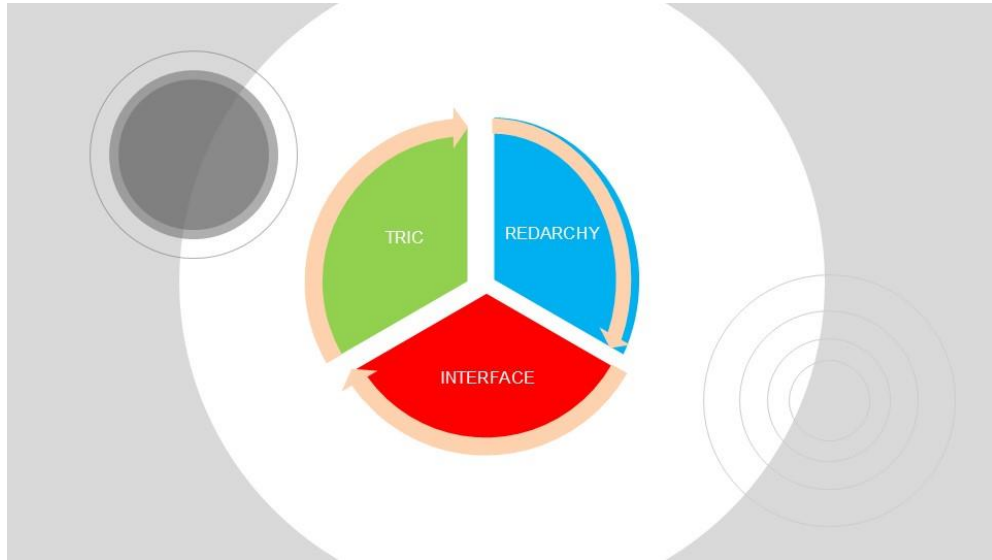
It is possible to propose a connection between the concepts of "Relational Factor" of Marta-Lazo contained in the TRIC (Relationship, Information and Communication Technologies), the concept of redarchy of Cabrera developed by Márquez (2009-2011). Precisely, the expansion of Carlos Scolari's interface idea converses with biological transformation schemes and can be used in other spheres. As Marta-Lazo points out, the hybridization of roles has turned the Internet into a multidialogical source, in which the messages constitute a great flow from one to another and from others to some. The "Relational Factor" (Marta-Lazo and Gabelas, 2016) becomes the transversal axis that connects the uses, consumption and interactions of the participants in the Network Society. The school needs to be redesigned and, in this way, the analysis from Scolari's broad conception of interfaces provides an eco-evolutionary perspective that allows us to understand their relationships, processes and transformations. A school-network is sensitive to the transformations and interconnections between diverse actors, people who organize themselves in a network in the terms of Rainie and Wellman (2012). A school capable of being conceived and studied as an intelligent organization, as an interface, as a model of technological change that dialogues with models of biological change. A school that is a network in a network society. In this way, the idea of redarguía, the

contribution of the TRIC and the conception of interface facilitate the understanding of a school-network, an organization-network.

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