

Network Life: The Identity of Adolescent High School Students

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Abstract: The following document presents the results of a study on high school students and how they incorporate the new information technologies into their daily life. The subject is approached from the line of research of Technological Innovation led by the members of the research group: Educational Innovation in Teaching and Learning Processes. This study shows evidence of how the use of devices such as video games, cell phones and internet has influenced students' behavior patterns both at school and at home. The empirical study was based on an intentional or convenience of 220 from a total of 350 students. The Results indicate the need to incorporate curriculum planning to the subjectivation processes that students develop from these practices.

Key words: information technologies, identity, adolescents, high school students

1. Introduction

Considering that we live in the information and communication society and the changes occurred in the various fields as a starting point, it is necessary to consider and reconsider how they affect the educational environment; the rise and proliferation of Information and Communication Technology (ICT) and its inclusion in the classroom, makes a change in the teaching and learning processes necessary.

Research on students usually recognize categories such as economic status, levels of performance and educational trajectories. There are still few research that take into account the socio-cultural practices developed by students immersed in a generation where ICTs, specifically social networks work as centerpiece of their daily lives.

Most of the literature of the practices of young internet users is made up of studies carried out in Spain which prolife rate since the beginning of this century (Tapscott, 2001; Cendros-Urdaneta, 2006; Rubio, 2010; Garmendia, Garitaonandia, 2007).

One of the most relevant studies both for its originality and for its relevance of data to this research, is the publication of Eduardo Weiss called "The students as young, the process of subjectivation" published in the magazine Perfiles in 2012. It addresses the situation that higher education students live and it discusses how they socialize through identifying tastes, interests and abilities. It provides a number of essential elements to know and/or recognize the new identities associated with rules, norms and understood values and concludes the need to recognize the new social patterns closely linked to the use of time.

Other studies referenced by Weiss (2012) and consulted for analysis are those of Feixa (1999) and Reguillo

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(2000) on youth cultures. The authors analyze the role of young people in times of social immediacy, young respondents to emerging situations internalize new rules on rigid boundaries that deny the need for change.

In this regard, Dubet and Martucelli (1998) analyze the behavior of young people in schools and argue that most of the experiences that are lived, depend on three types of logical interaction which they call: interaction rules; development of subjectivity and instrumental action. The authors encrypted their analysis in a calculation of profits earned by the investment of school work. These results become interesting when they show how young high school students manage their school obligations as strategists (Weiss, 2012).

The studies reviewed have as a common denominator, the recognition in the young people of the subjectivation processes that emerge from the interaction with others. The results presented show that this interaction is currently mediated by technological devices such as cell phones and/or high-level computers.

Information and Communication Technologies have been increasing during the last year, their rapid progress and social diffusion indicate that it is a steadily growing process. Castells (1996) believes that nowadays no one doubts that the use of these technologies is producing a deep and ongoing technological revolution, is transforming the different social and personal domains and causes the information and knowledge to be applied to creation, prosecution and dissemination processes and thereby the innovation and practical use are being fed and reinforced.

The global model among his most evocative mechanisms brought the so called Information and Communication Technology (ICT), which have the peculiarity that once incorporated into the subject's daily life they are indispensable and in some cases they create reliance among its users.

Unlike authors who have cataloged these new ways of being and acting of young high school students as a fashion or who have minimized their impact by stating that this is only a manifestation of freedom of young people, a boost of the inner self of the younger generation or even believing that they are only an instrument of self-assertion and youthful rebellion, we adhere to the remark made by Bauman (2008). In his book *Consuming Life*, he argues that this fondness for networks cannot be explained as a proper factor of age, but rather it is a growing need of the consumer's liquid world.

Our students have suffered a transformation, difficult to explain but easy to verify. The problems that overwhelm the generation older than 40 years are not concerning to them, hence the concept of immediacy refers to the unpredictable, precarious, immediate or temporary that tends to be the point of interest of new generations into something that obstructs and/or bothers them in their daily development.

That is why currently the Educational Institutions must develop ways of incorporating the use and appropriation of ICTs as a support in the teaching and learning processes, this implies teacher's information not only in humanistic, pedagogical-didactic fields, but also in technology and research field, allowing them be at the level of the demands of today's world.

2. Methodological Proposal

The research in question was conducted in the Instituto Tabasco, one of the top private schools in the south-southeast of Mexico. The empirical study was based on an intentional or convenience sample of 220 students from a total of 350, who at the time of administering the questionnaires, were studying high school.

The questionnaires were filled out by the students themselves and the open questions were the result of an in-depth interview with the most significant cases, which served to give sense to closed questions and build the

facts analytically.

It is therefore a quantitative study aided by qualitative tools so it could be classified as mixed. It presents results of the frequency, skill, purpose and type of use that middle school students make of the information and communication technologies and how they have mediated in shaping their identities.

2.1 Sample

The criteria for determining the sample was based on the choice of 220 regular students, with average ages in the range of 15 to 18 years regardless of gender and with the understanding that all come from middle class families whose parents are professionals or entrepreneurs of small and medium business. All study participants with overall grade point average of eight.

2.2 Data Collection Instruments

The instruments used for the measurement were two semi-structured questionnaires and applied at different times during the months of May to December 2013. The initial questionnaire consisted of 25 multiple choice questions and was used to detect the population with the characteristics required: students enrolled in a semester of high school and frequent users of the network. In the second stage a second questionnaire with ten semi-structured questions was applied to students who responded positively to 70% of the questions in the initial survey. The study reports aspects of the following categories: digital skills for school use, change in family dynamics and patterns of leisure and consumption, which together contributed to the creation of the so called new youth identities.

3. Data Analysis and Results

Knowing how high school young use technology, becomes the main tool to determine their membership in social groups, how it organizes their everyday life and thereby knows some features of their identity.

The data obtained from the last questionnaire were the basis for the preparation of the written work presented. To systematize them, the SPSS program was used to cast the tables necessary for subsequent theorizing. The open questions were reviewed through analysis of narrative, identifying and linking the central categories with hard data. It is therefore a quantitative study aided by qualitative tools, so it could be classified as mixed. It presents results of the frequency, skill, purpose and type of use that high school students give to the information and communication technologies and how they have mediated the shaping of identities. The data discussed below recognizes the use that young people give to new technologies in relation to school, leisure and consumption, three factors are closely interrelated. All of those who participated in the study claim to be familiar with computer equipment and likewise agree to be users of video games.

Their habits are mediated by the coexistence with technology; 95% have a computer at home, 98% of them performed at least three tasks simultaneously: chatting with friends (several at once), watching TV series and performing tasks related to school work. Which implies a symbolic and physical transformation of the reality as we conceived it until very recently,

[...] social relations are different and [there is an ever-accelerating] adaptation of people to machines, its time, immediacy, versatility, tasks arrangements, etc. but especially all digital systems contribute since the beginning of modernity to redefining the notions of public and private (Rubio, 2010, p. 210).

Table 1 Counts with A Computer at Home

Answer	Frequency	Percentage
Yes	209	95
No	11	5
Total	220	100

Source: Own compilation

The Net generation experiences the company or the feeling of being accompanied of a sui generis form. They connect with each other in the solitude of their private spaces that are at the same time public, since they observe and are being observed. The paradox, therefore, is that young people are connected to computers, but disconnected from physical contact with those around them.

The forms of communication among young people generate a series of patterns, logic and codes so it is conceivable that we are facing a meta language consisting of symbols and signs loaded with intentionality:

Some examples that illustrate the latter are pointed out by young at the in-depth interviews.

“...we typically use symbols because messages only allow a certain amount of characters, so we have to say more with less.” (Tania, 17 years).

“...long messages are generally used by adults and we tend to answer briefly because we are bored of reading too much. When I have my mom or my dad online I rather not answer” (Rodrigo, 18 years).

“Oh, it’s better to use symbols or codes between us... if your mom checks you cell she will hardly understand, so you’re out of danger.” (Margaret, 16).

“...it’s better to use images, sometimes you just take a picture and there you go, with that you explain more, it’s very boring to be writing.” (Carlos, 18 years).

The new generations undergo life experiences that have shaped the habits and customs which had been traditional, it’s enough to remember that two generations ago, the time to do homework involved both the parent and the teacher and the student left all sorts of distractions aside in order to achieve the concentration needed.

80% of participants expressed having their own computer or having a computer available with internet connection; this coincides with the socio-economic level of the surveyed students who attend a private school; 15% have a PC but no internet connection or in the process of hiring the service; 5% report not having a PC but often go the so-called internet cafe in search of service. This means that all of the students are network users.

Table 2 Has Its Own Computer

Answer	Frequency	Percentage
Pc with internet connection	176	80
Pc without internet connection	33	15
Does not have Pc and goes to internet-café	11	5
Total	220	100

Source: Own compilation

Most of them have internet service (176) and the few ones who do not have internet connection, use alternatives such as the ones called internet-café or their relatives’ home equipment who have internet connection. In any case neither the intervention of parents is indicated in the regulation of internet neither the services it provides.

Arturo García and Laura Hernández (2012) in their publication in the *Jornada* journal say that according to the AMPICI (Mexican Internet Association), the number of internet users in Mexico were 40.6 millions in 2011, which represents an increase of 14% over 2010. Most connections between 2010 and 2011 were made from mobile devices such as cell phones, music players, portable video games console and tablets.

Table 3 Copies and Pastes Information without Receiving Any Warning or Remarks

Answer	Frequency	Percentage
Yes	150	68
No	70	32
Total	220	100.0

Source: Own compilation

68% of those interviewed admitted that most of their academic work that involves doing research to present in front of the class, is the result of the widespread practice of “copy and paste”, integrating intact paragraphs, without receiving any warning or remarks from their teachers.

This shows what is widely known and documented in our country (Gutierrez, 2005; Velenti, 2002), that citizens have serious deficiencies in their reading skills, which becomes a constraint to face the ever-increasing information provided by network.

The process of unlearning is increasingly widespread and its dynamic ever faster. One example is enough: a high percentage of contemporary teenagers, no longer write according to the accepted canons of Spanish grammar, instead, they do it the same way they do it on Facebook on the Internet: without syntactic rules, mixing jargon with common words and performing a mass of signs, numbers and single syllables between expressive faces and profanity. The problem is not that such *sui generis* cyber code exists and that the young people master it, the problem is that they increasingly use it as a substitute to their native language. A person who has entered such type of dynamic, in the short term will tend not to make sense neither in the traditional reading nor in the narrative contents.

Instead of reading skills, students will have developed skills in interpreting visual images, user-friendly information and simultaneous attention.

For today’s students “doing homework” may lengthen the time necessary without causing them any concern, since the activity is interleaved with other tasks, so the space for homework and recreation is the same, potentiated with electronic equipment required for establishing ongoing communication. Beck (2006) finds that the school is no longer a mediating entity that prepares youth for social life by transmitting knowledge. Tapscoot (2007) identifies the internet as a place where youngsters can learn, experience and grow and therefore need the freedom to navigate the digital world and not otherwise.

The empirical study confirms this; 89% of those interviewed agreed to perform simultaneous activities such as watching videos, downloading movies, sending messages by phone, or purchasing applications or items online, accessing their blog or entering forums, without affecting their academic performance. Of the 220 participants only 11%, which translates into 24 students, claims not to perform other activities simultaneously to the completion of their academic tasks.

Table 4 Performs Simultaneous Activities Without Affecting Their Performance

Answer	Frequency	Percentage
Yes	196	89
No	24	11
Total	220	100.0

Source: Own compilation

For young people, homework has turned into a challenge towards the development of strategies that allow them to save time and motion, in a similar manner to the old Taylorist model. Young people, therefore, have become true strategists who copy, paste, transform, paraphrase, main or break down what's done in order to comply in the shortest time and with the minimal effort.

Lipovetsky and Juvin (2011) clearly summarize this time-space relationship in this new reality, when they point out that the space has somewhat shrunk and the time has accelerated. The young along with the adults have entered the era of space-time worldwide, the global cyberspace, which does not mean in any case, the disappearance of cultural distances. They dedicate a range that goes from 20 minutes up to two hours or even all day to school work.

Table 5 Time Dedicated to School Work

Answer	Frequency	Percentage
10 to 20 minutes	0	0
20 to 40 minutes	88	40
40 minutes to 1 hour	66	30
More than an hour	22	10
All day	44	20
Total	220	100.0

Source: Own compilation

In relation to school, another interesting fact is the opinion held by students about educational spaces or virtual online training. Usually, we tend to attribute to adolescents preference for online learning spaces, however, to the specific question of their preference for receiving this modality, 96% expressed a preference for maintaining face interaction, face to face with their peers and teachers although they do not deny the importance of maintaining an extracurricular online support, i.e., they exhibit a strong preference for blended learning (b-learning).

In this regard, Georgina Diaz (2006) notes that the appropriate use of information technology can facilitate participation productively and responsibly at all times of the learning activity and stimulate the development of their cognitive independence and creativity, having to face in different ways, the search for the necessary information that allows them to guide their own learning in accordance with their individual characteristics, limitations and potential.

This optimistic view, however, does not always proceed in an environment where users of information technologies have other priorities, not necessarily related to the use of the devices in the discrimination of valuable information.

The speed of the network connectivity, the communication style and the consumption patterns foster a

dynamic and fragmented thinking, taking into account that the notion of time only implies here and now. Due to these, the topics of interests that typically occupy the young are related to issues that concern their daily lives. For example, knowing what their friends are doing right when they login, monitoring the lives of their artists, music groups and in a much lower degree, political or economic issues that affect their environment.

Table 6 Preference for Online Education

Answer	Frequency	Percentage
Yes	9	4
No	211	96
Total	220	100.0

Source: Own compilation

58% frequently use the educational platform of the institution to perform their school activities. The Internet facilitates the creation of a social reality based on simulation, which is powerfully signified and represented in an environment of risk and uncertainty regarding the information found in it. Anyone with a computer and a modem can be presented as a researcher or electronic publisher with the ability to disseminate information to a global audience.

Table 7 Use of School Platform

Answer	Frequency	Percentage
Yes	128	58
No	92	42
Total	220	100.0

Source: Own compilation

The Internet as a powerful vehicle for publication expands and exploits the information. The question that every internet user makes himself is: How to evaluate the quality and accuracy of this information? Just because a document appears online on the internet does not mean it contains valuable information, and that is precisely what young people responded when they were asked how many hours they spend in front of computer, they invest doing their homework: 15% use one hour, in contrast with 13% which employ three to four hours a day chatting, in addition 89% of those surveyed said they are unable to discriminate dubious information and locate reliable sources.

Lets recall that the global model, among his most evocative mechanisms brought along the so called Information and Communication Technologies, which have the peculiarity that once incorporated into the daily life of the subject, they are indispensable and in some cases create dependence among its users.

Table 8 Importance of the Physical Presence of the Teacher to Acquire Knowledge

Answer	Frequency	Percentage
Yes	187	85
No	11	5
Sometimes	22	10
Total	220	100.0

Source: Own compilation

85% of participants believe that their teachers are important in order for them to be able to obtain the proper knowledge. While the remaining 15% felt different, this is due to the fact that the abundance of information available to them online deprives the teacher from their task of transmitting knowledge.

Majó and Marqués (2002) consider it necessary to make a change in the education system and therefore the main actors, students and teachers, as a reflection of society and of the generations that live in it, as well as progress in Pedagogy and Psychology science (learning styles, constructivism among others), which go towards a student-centered learning; what becomes clear is that the roles of the participants must be modified, some of the professors who teach at this institution are not entirely familiar with the use of technology when delivering their classes.

Let us remember that some of the characteristics of information and communication technologies, according to Orlando Arratia (2006), is the interactivity, defined as the responsiveness of the user through an interface that mediates between him and the computer, since one of the most important changes in the new information society is a break from the space-time coordinates as single framework from human activity. Computer networks eliminate the need that existed for many years to coincide in space and time for participation in activities.

4. Conclusions

Today young people under 19 make up more than 40% of all internet users in the country, which is why, studies aimed toward understanding the behavior, attitudes and uses given to the network become research lines necessary for decision-making at all levels.

The data provided in the study confirm that the young high school students, population under study, have incorporated the internet to most of their daily activities thereby changing behaviors, attitudes and values towards the family and school, institutions that had been socially considered as symbols of tradition and identity.

Identity understood as the sense of belonging and identification with interests and motivations in an individual and collective level have been diversifying and instead new forms of collaboration, transference and identification with different groups, subjects and circumstances have appear. What compels us to think about the creation of new identities mediated by situations that respond to the immediacy that individuals face day to day.

The habits of the vast majority of young people are mediated by coexistence with technology. Some features attributed to those participating in this study are: all respondents possess digital skills and almost all have their own computer equipment; activities related to school tasks are performed simultaneously with actions such as talking with friends on facebook (several at once), following the TV shows, listening to music and attending competitive games online. This translates into a new way of looking at reality and therefore, in the formation of new paradigms of explanation of their social existence.

In the world of the young, where everything is new, computers do not seem, as in the case of adults, extraordinary events. The attitudes of students toward the information and communication technologies, are generally positive when they have had a rewarding experience; while the attitudes of adults seem less positive, both before and after the experience.

This situation represents a challenge for all Educational Institutions, especially for the Instituto Tabasco which, as private school is committed to parents and school authorities to submit updated curriculum maps and that are related to the reality that each of its students has to live; if we assume that the information is the raw material for the generation of knowledge and the internet puts it within reach of our young high school students,

and in a new format that is digital, which can be accessed easily, quickly and comfortably it is obvious that the capabilities they must develop and the skills that they must acquire will have to be related to the selection, search, evaluation, storage and handling processes of that information.

With the arrival of technology in the daily lives of the participants in this study, new lifestyles and ways of perceiving the world are incorporated. Technology and digitalization make up much of their social life.

It is undeniable that this institution is facing an urgent need to update and redesign their plans and curricula in order to train its students for the challenges that life might present them. It is a fact that all participants in this study belong to the Net Generation.

The blackboard and chalk should no longer occupy the central place, they must be replaced by electronic whiteboards, to thereby achieve more dynamic classes, always ensuring that the technology is at the service of the teaching and learning processes, preventing the teacher and the students from being preoccupied with the technology and thus causing these processes to be distorted.

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