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The Relationship of Adolescents with the Internet and the Void in Educational Practice

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ABSTRACT

This research paper immerses itself in the study of the relationship that is formed between adolescent high school students and the internet, carefully examining its effects on both their school passage and family life. It was based on a quantitative analysis of data obtained by a group of thirty students from rural communities, and focused on three main points: first, how the students themselves perceive that the internet contributes to learning and expanding their knowledge; second, whether their teachers actually incorporate its use into everyday school practice; and third, the effects that its excessive use brings to relationships within the home. The results paint a reality full of contradictions. On the one hand, it is evident that young people recognize the value of the internet as an aid to their studies and are fully familiar with technology. On the other hand, however, this constant connection often seems to lead to friction and conflicts with the family. At the same time, the research reveals some notable differences between boys and girls, and especially a significant gap: although students see the enormous potential of the digital world, in the real school context its use often remains limited and superficial. The conclusion that emerges is clear: a collaborative approach between school and family is urgently needed, in order to cultivate a more balanced and beneficial relationship between adolescents and screens.

INTRODUCTION

The way the internet has permeated teens' daily lives hasn't just changed the way they relax or make friends. It also profoundly influenced the way they learn and perceive knowledge (Haythornthwaite & Wellman, 2002; Ito *et al.,* 2008). In school, we often hear that it is a great tool for searching for information, collaborating and enriching what is being taught (Pew Internet & American Life Project, 2002; Shields & Behrman, 2000). In practice, however, even though everyone talks about its opportunities, its use in the classroom often seems limited or results in an easy way of entertainment (Subrahmanyam, Greenfield, Kraut, & Gross, 2001; Valkenburg & Soeters, 2001).

At the same time, this constant connection of children with the digital world has become a source of new problems at home. The long hours in front of the screen is often a cause for disagreements between parents and adolescents, as the former are anxious about whether their lessons, social life and emotional stability are affected (Kraut *et al.,* 1996; Turow & Nir, 2000). This dual side of the internet – on the one hand a dynamic learning tool, on the other a cause of tension at home – is exactly what we look at in this study.

More specifically, we are interested in the views and experiences of teenagers from rural areas. There, things like limited technological equipment or different economic conditions can make internet use look a little different than in cities (Clotfelter, Ladd, & Vigdor, 2008). Based on the data from a questionnaire, we want to look at the following: How do students themselves think the internet affects their performance and knowledge? How do they see computers and the internet actually being used in their school? What impact does its use have on relationships with their family, and especially on any conflicts? And finally, are there significant differences between boys and girls in all of this?

Our goal is to make a complete picture. To understand how teenagers view the internet, how school and home shape this view, and what the consequences can be for both learning and calming at home.

LITERATURE REVIEW

Internet and the Educational Process: Possibilities and Challenges.

The topic of integrating Information and Communication Technologies (ICT) and the internet itself into education has piqued the interest of researchers and professors for years. In theory, the internet seems to be able to change learning: from something that the teacher leads, to something more open, interactive and focused on the student himself (Roschelle *et al.,* 2000). It immediately opens doors to information, helps you collaborate with your classmates even from your home, and perhaps adapts better to the pace and needs of each child (Harrison *et al.,* 2002; Moseley *et al.,* 1999).

Research shows that when the internet is used for schoolwork – such as searching for an assignment or communicating for a group exercise – it can actually help with lessons (Angrist & Lavy, 2002; Jackson *et al.,* 2006). Collaboration through digital tools seems particularly beneficial, helping students better understand and

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remember the material (Davis & Graf, 2005). However, all this is not self-evident. Without proper guidance and without learning to think critically, the risk is that students will copy texts without editing them or rely on sources that are not reliable (Griffin & Symington, 1997; Rickert, 2001). A big factor here is, of course, the teachers. If an educator is not comfortable or confident with technology, it is very likely that they will avoid it, or use it in ways that do not really benefit the learning process (Moseley *et al.,* 1999). Conversely, when educators confidently encourage and point the way to a creative use, then students follow along and benefit fully (Passey & Higgins, 2011).

The Digital Life of Adolescents and Family Relationships

Along with school, the internet is the main place for many teenagers to relax and socialize. Hours spent playing online games, social networks or other online activities can easily cause tensions and cause conflicts with parents (Brenner, 1997; Turow, 1999).

These disagreements often start with seeing things differently. Parents may feel that they are "wasting" their screen time, time that they could read, or worry about the dangers hidden in the online world (Turow & Nir, 2000). The teenager, for his part, may see the internet as a key part of his life, his way of being with his friends and having fun. If a common language is lacking and there are no clear, logical rules, these frictions can become worse (Lee & Chae, 2007).

It has also been observed that the way and time of use often differs between boys and girls. Boys tend to engage more with video games, while girls may prefer the communication and social functions offered by platforms (Lenhart, Madden, & Hitlin, 2005). These differences can also lead to different "scenarios" of conflict at home, with parents worrying differently about each of their children (Subrahmanyam, Kraut, Greenfield, & Gross, 2000).

The Digital Divide in Rural Areas

When we talk about how connected teenagers are, we cannot forget the issue of equality. In rural or more isolated areas, situations such as economic hardship, a slower internet connection, or fewer opportunities for technology education can create a gap with urban children (Clotfelter, Ladd, & Vigdor, 2008; Malamud & Pop-Eleches, 2008). This "digital divide" affects both students' ability to find and use school information, and teachers' ability to make truly interactive lessons.

This study, focusing on students from rural communities, aims to contribute to the understanding of these conditions. To show how they make up the digital experience of adolescents, both in the classroom and in their most personal environment, the home.

The Digital Everyday Life of Teenagers: Connection, Entertainment and Challenges

The digital world has become their physical space for an entire generation. Adolescents today are growing up in a technology-permeable environment, where devices such as smartphones and tablets are both familiar and integral to the way they communicate, entertain, and learn (Chan & Rabinowitz, 2006; Dunleavy *et al.,* 2007). These devices are not just windows into information, but powerful social tools, nuclei of their identity and interaction (Liu & Kuo, 2007). Of course, this constant "connected" regime has piqued the interest of researchers. What exactly do teenagers do online, and why? Our research shows that the answer is not simple and that activities vary dramatically depending on gender, cultural context, and age (Malamud & Pop-Eleches, 2008). In general, while young children may use it more for recreational content, adolescents use it as a place for social networking, communication, and the fulfillment of their school obligations (Turow & Nir, 2000; Kraut *et al.,* 1996). This dual – and often competitive – nature of the internet, as a place of entertainment and educational resource at the same time, is perhaps the most critical feature of their digital experience. While platforms like social networks can actually support collaborative learning and creative exchange of ideas (Rowlands *et al.,* 2011; Bukvova *et al.,* 2010), the reduction in study time due to excessive entertainment remains a strong concern with potential impacts on academic performance (Rowlands *et al.,* 2011).

Technology in School: Promise, Reality and The Critical Role of The Teacher

With the logic that we need to prepare children for the world of tomorrow, the school has tried to integrate computers and the internet into teaching. The goal is noble: to break down the walls of the traditional classroom and allow for more active, constructive learning that connects with the real world (Hill & Peters, 1998). The theory is engaging – access to simulations, data libraries, and norms from around the world can really deepen understanding (Hill & Peters, 1996). However, the reality on the ground is murkier. Empirical evidence for the effectiveness of this integration is mixed and often conflicting (Shields & Behrman, 2000). Some studies find a positive effect on subjects such as mathematics (Harrison *et al.,* 2002), while others report negligible or even negative results, especially when technology is used primarily for entertainment rather than learning (Clotfelter, Ladd, & Vigdor, 2008; Angrist & Lavy, 2002).

The key to unraveling this confusion seems to lie not in the equipment itself, but in the human factor: the educational and pedagogical approach. Effective utilization requires much more than just putting computers in a classroom; it requires redefining the curriculum, assessment and, above all, continuous and meaningful training of teachers (Hill & Peters, 1998). This is where the chain often breaks down. Many educators, without adequate support and training, feel unable or unwilling to creatively integrate technology into their teaching (McKenna & Bargh, 1998). So the real question stops being whether we should use technology, but how can we make it a truly integrated tool that enhances, not replaces, good teaching.

How Do We Measure The Effect? Validity Issues In Research

To understand this complex relationship between the internet and learning, we need reliable research tools. In a quantitative study like ours, the structured questionnaire is the main instrument. The reliability of our conclusions, however, depends on the quality of its construction and implementation. We must take into account how the data collection process affects the participants themselves. For example, ensuring complete anonymity and lack of time pressures are critical to reducing students' anxiety and allowing them to respond honestly (Griffin & Symington, 1997; Fancovicova & Prokop, 2010). Validity – that is, the ability of the questionnaire to truly measure what it claims to count – is the cornerstone (Ouzouni & Nakakis, 2011). Questions should be clear, fit the language level of teenagers, and relate to things they can perceive and appreciate. Only through such a careful process can we hope to reliably capture the multidimensional reality of their digital experience.

Objectives and Questions of the Survey

Within this complex context, the present study sets a central goal: to investigate how the internet simultaneously shapes the educational and family lives of adolescents in rural communities. We are not only interested in whether it helps with studies, but also how it affects relationships within the home. In order to be guided, we formulated specific questions:

First, we want to understand how and to what extent teachers really integrate and encourage the use of the internet into the learning process.

Secondly, we are concerned with finding out how the students themselves perceive the impact that this use has on their school performance and their general knowledge.

Third, we examine whether there is a correlation between excessive internet use and the occurrence of conflicts with the family. And fourth, we investigate whether there are significant differences in all these perceptions and practices between boys and girls.

MATERIALS AND METHODS

Sample Participants.

To answer the above questions, we turned to a group of 30 high school students from rural areas of Pieria. The sample consisted of 20 boys and 10 girls. An important feature is that most of them come from families with an agricultural profession, which gives our research a specific socio-economic and cultural profile. Their selection was made randomly, by lot, trying to include students with different levels of school performance to have a more complete picture. Our main concern was their willingness to participate and ensuring that our sample can tell us something useful for other teenagers in similar areas.

Data Selection

We chose the quantitative method, using a structured questionnaire with closed questions as the main tool. This option allowed us to collect data systematically from all participants and then look for statistical relationships and trends, e.g. whether boys experience more conflict than girls. The questionnaire was designed specifically for this research, with questions that progressed from general to special and in a language accessible to high school students. It covered a wide range of topics: from basic internet usage habits and comfort with technology, to how they view their teachers' involvement, what educational activities they do online, and, of course, how their relationships at home are affected. Given the agricultural origin of the sample, we also took into account the possible limitation on access to technology, adjusting the scope of the questions accordingly.

The Data Collection Process

It all started with careful briefing of the students. We explained to them in detail the purpose of the survey, assured them of the absolute anonymity of their answers and asked for their consent to participate. They completed the questionnaire in a calm environment, with no time limit, so that they felt comfortable and not pressured. We believe that this process, which was carried out with respect and creating a climate of trust, was decisive in obtaining honest answers. After collecting, the data were organized and analyzed using simple statistical methods (calculation of frequencies and percentages). Our analysis focused on describing the general trends that emerged, comparing the two sexes, and ultimately linking these findings to our research questions and the broader theoretical framework we described earlier.

Research Process

The research process was carried out based on a quantitative, research approach with the aim of systematically collecting and analyzing data on students' perceptions and experiences. The main research question that guided the process was: How do adolescent students in rural areas perceive the role of the internet in learning and the effects of its use on their family life?

To answer this broad question, the following, more specifically, research sub-questions were formulated to guide the design of the questionnaire and the analysis of the data:

1. Educational Dimension: Do teachers encourage the use of the internet for educational purposes and how do students perceive teacher training in ICT issues? With which subjects do students associate with the use of computers in school and do they believe that it contributes to the enrichment of knowledge?
2. Cognitive and Collaborative Dimension: Do students believe that the use of the internet has a positive impact on their school performance? To what extent do they use tools such as educational sites for review and email communication to collaborate with classmates?
3. Family and Social Dimension: Does excessive internet use correlate with conflicts between teens and parents? Are there differences in these experiences

between boys and girls?

The process started with the assurance of ethical principles. Before completing the questionnaire, the purpose of the survey was clearly explained to the students, the complete anonymity and confidentiality of their answers were ensured, and their voluntary consent to participate was confirmed. Anonymity was considered crucial to reduce social discrimination in the responses and ensure greater honesty (Fancovicova & Prokop, 2010).

The questionnaire was distributed and completed under appropriate conditions, with no time limit, in order not to cause stress to the participants (Griffin & Symington, 1997). During this phase, special attention was paid to creating a climate of trust and collaboration, recognizing that the quality of the interaction between researcher and participant can positively impact the reliability of the data. After collecting, the data were subjected to a descriptive statistical analysis. For each of the research sub-questions, frequencies and percentages of responses were calculated for the whole sample and separately for the two sexes (20 boys, 10 girls). This comparative analysis was fundamental to identify possible differences in the perceptions and experiences of the students. The presentation of the results was carried out in the form of diagrams and tables, while their interpretation was done by combining the empirical data with the theoretical framework presented earlier. The following section of results systematically answers the above research questions, revealing the trends and correlations that emerged from this organized research process.

RESULTS AND DISCUSSION

The results of the survey, as they emerge from the analysis of the answers to questions 10 to 25 of the questionnaire, reveal a multifaceted landscape of students' perceptions and experiences. The findings are organized around the three main research sub-questions concerning the family, educational and cognitive-cooperative dimensions of internet use.

Family Relationships and Conflicts

One of the most striking findings concerns the relationship between excessive use of the internet and family harmony. According to the students' responses, almost half of the sample (46.7%, 14/30 students) state that their long hours of computer and internet involvement leads to conflicts with their parents. The gender analysis reveals a decisive and statistically striking difference. All 14 students who reported such conflicts are boys; in contrast, none of the 10 girls reported a similar experience. This finding is a direct answer to the third research sub-question, strongly confirming that excessive use is associated with family conflicts, but in a modified way: the association is strongly gender dependent. The absolute correlation with the male gender suggests that differences in nature (e.g., emphasis on online gaming versus social networking or educational search), duration or even in the different social expectations of parents towards boys, as has been reported in the literature (Subrahmanyam *et al.,* 2001; Lei & Wu, 2007), translate into a much more intense experience of conflict for adolescent students.

The Role of the School and Teachers

The findings regarding the educational sector present a more diverse picture, which answers the first research sub-question. Despite the well-known issue of inadequate ICT teacher training in ICT (McKenna & Bargh, 1998), the majority of students in this research seem to have a positive perception of the technological training of their teachers. 22 out of 30 students (73.3%) state that their teachers have the necessary training, with girls being slightly more positive (80%) than boys (70%). This can be interpreted either as a sign of satisfactory basic training for the needs perceived by students, or as a reflection of limited expectations in an environment where technology integration may be at an early stage.

This positive general perception is further reinforced by the responses on encouragement and practical integration. More precisely, all students (100%) confirm that teachers encourage them to use the internet to search for materials and that they have been assigned at least once homework that requires the use of a computer. However, integration within the school setting appears to be more limited and special. Through the students' answers, it appears that the use of computers at school is mainly concentrated in the subjects of Technology (26 reports) and Home Economics (17 reports), while other subjects such as Physics, Geography and History are mentioned to a much lesser extent. This suggests a "sink" logic the integration of technology, where it is absorbed by one or two subjects that are considered "natural" carriers, instead of holistically permeating the educational curriculum. It is a finding that hints at a gap between positive attitude and widespread application.

Students' Perceptions, Skills and Collaborative Practices

The analysis of the cognitive and collaborative dimension, which responds to the second research sub-question, reveals trends in high technological familiarity but also interesting differences in exploitation practices. Specifically, 28 out of 30 students (93.3%) state familiarity with the use of search engines, confirming the characteristic of adolescents as "digital natives".

In terms of perceptions of the value of the internet, the findings are conditionally positive but not uniform. 66.7% (20/30) of students believe that internet use has a positive impact on school performance and an even larger majority, 83.3% (25/30), agree that the internet helps to enrich knowledge for school subjects. However, only half of the students in the sample (14/30) believe that teaching using computers facilitates the assimilation of the material, revealing a significant disagreement that may be related to their limited or non-transformative experience of school. In addition, 60% (18/30) consider

that information from the internet is often more relevant and valid than the textbook, which emphasizes the need for students to develop critical thinking for the evaluation of online sources.

Gender differences reappear with a focus on constructive practices. Girls systematically report higher participation in activities that support learning. While only 6 out of 20 boys (30%) say they do repetitive exercises on educational sites, this figure rises to 6 out of 10 girls (60%). Similarly, 8 out of 10 girls (80%) exchange educational materials via email with classmates, as opposed to only 5 out of 20 boys (25%). This difference is also reflected in perceptions of collaborative learning: while all girls (10/10) consider the internet to be conducive to collaboration, 2 out of 20 boys (10%) disagree. These findings record a clear difference in learning strategies and how digital resources are used between the two genders in this group, with girls appearing more actively in constructive and collaborative digital practices, which may also affect their more positive perception of the impact of the internet on performance.

Discussion

The results of this research present us with a world with a double bottom. For teenagers in rural communities, the internet is not just a window to knowledge or a mere entertainment space. It is a field of confrontation, where the great promises of education (Roschelle *et al.,* 2000; Shields & Behrman, 2000) encounter real, acute challenges in the family and at school (Turow & Nir, 2000; Lee & Chae, 2007). This study, observing through the eyes of the students themselves, agrees in many respects with what we already know from global research (Subrahmanyam *et al.,* 2000; Ito *et al.,* 2008), but at the same time it brings to light a special reality, carved by life in the Greek countryside, which forces us to rethink exactly how we apply what we think is right.

A Place of Conflict, With A Clear Gender

The most obvious conclusion is how intensely excessive use of the internet can cause a rift in family peace (Kraut *et al.,* 1996; Lei & Wu, 2007). However, this conflict is not universal. It occurs almost exclusively in boys. In our sample, there were 14 boys who confessed that long-term internet browsing leads to disagreements and confrontations with their parents, while no girls reported this. This is not just a statistical difference; it's a shouting gap. It shows that parents, perhaps without even fully realizing it, treat their boys and girls differently when they are connected (Lenhart *et al.,* 2005). Boys' focus on online gaming, a space that many adults view with suspicion as a "waste of time," clashes with traditional perceptions of productivity and reading (Chan & Rabinowitz, 2006; Subrahmanyam *et al.,* 2001). A "digital gender conflict" is created, where adolescents live in a digital world that their parents find difficult to understand or control (Wellman *et al.,* 2002), and friction is inevitable. For girls who seem to use the internet more for communication or information search (Rickert, 2001; Valkenburg & Soeters, 2001), this space is more transparent and more acceptable in the eyes of parents, so it does not become a cause of controversy as often.

School: Good Intentions, Half Solutions

While at home there is often conflict, at school the image is more amiable, although not entirely satisfactory. It is very positive that all students recognize that their teachers encourage them to use the Internet for their assignments (Pew Internet & American Life Project, 2002). It seems that the education system has abandoned the absolute negative attitude and has accepted the role of the internet. However, its actual integration into everyday teaching seems to be still in its infancy (Moseley *et al.,* 1999; Harrison *et al.,* 2002). The use of computers is mainly concentrated in one or two subjects, such as Technology and Home Economics. It's like saying, "let's leave technology to the subject that concerns it," instead of seeing it as a tool that can transform the course of History, Mathematics, or Physics. This "sink logic" leaves a huge potential untapped (Roschelle *et al.,* 2000). And perhaps this is exactly why students are divided: half believe that the computer helps to understand the material, the other half do not (Clotfelter *et al.,* 2008; Angrist & Lavy, 2002). When technology is cut off from the heart of teaching, when it is only used to print out a task or do a simple search, it makes sense that not everyone sees its benefit (Passey & Higgins, 2011).

Two Different Digital Worlds: Boys And Girls

The study reveals that boys and girls not only spend their time differently online (Bayraktar & Gün, 2007), but have developed almost two distinct digital approaches to learning. Girls seem to be more strategic and practical. They actively use the internet to support their learning: they visit educational sites for practice, exchange notes and materials with classmates via email (Davis & Graf, 2005). For these girls, the internet is a natural extension of the textbook, a tool they control to improve their performance. And indeed, all without exception believe that the internet helps them at school.

Boys, on the other hand, although they are equally experienced users, do not show the same systematization (Malamud & Pop-Eleches, 2008). They are less involved in such educational activities online. For many of them, the internet seems to be primarily a place of recreation and socialization through games. This difference in approach is not insignificant. It explains why boys have more divided views on the benefits of the internet and, most importantly, why they are in the fireline of family conflicts. When one's main digital activity has no obvious educational goal, it is much harder to defend it in the face of parents who are anxious about their future (Attewell & Battle, 1999; Jackson *et al.,* 2006).

Where Does All This Lead?

What do these findings mean for teachers and parents? First of all, that "digital literacy" is not just about

knowing how to use a program. It is knowing how and why to use it (Haythornthwaite & Wellman, 2002). The school needs to stop treating technology as a separate subject and start bringing it into all lessons, in ways that really enrich teaching. Second, we need to look at boys and girls differently. In boys, we need strategies that will "bridge" their interest in the digital world (e.g., games) with cognitive skills – to learn programming through game creation, to analyze data from an e-sport. In girls, who are already making a more constructive use, we can further strengthen their skills and encourage them to take on leadership roles in the digital space.

Finally, there is a great obligation for cooperation between school and family (Borzekowski & Robinson, 2005). The school can become the neutral mediator that will help parents understand their children's digital world, set healthy boundaries without creating unnecessary conflicts, and learn how to identify and encourage the constructive aspects of online life.

Overall, this research shows us that teens' relationship with the internet is not a simple story of good or bad choices. It is a mirror that reflects deeper social dynamics: different expectations for the two sexes, the gap between generations and the difficulties of school to change radically. To finally transform the internet from an object of tension to a true tool for development, we need to embrace this complexity and act sensitively and purposefully on both of these fronts: home and school.

CONCLUSIONS

Summarizing the findings of this study, we find that the digital experience of adolescents in rural areas cannot be described in simple terms. On the contrary, it is a highly complex fabric, where educational possibilities coexist, and sometimes clash with significant socio-family challenges. Central to all this dynamic is gender, which seems to determine not only how the internet is used, but also its consequences on young people's lives.

The most discernible conclusion is the clear correlation of excessive use of the internet with family conflicts, a correlation that "belongs" mainly to boys. This difference is not accidental. It reflects deep social perceptions: the tendency to treat boys' entertainment (often identified with gaming) differently from that of girls, and the conflict between the digital world that teenagers live in and the traditional priorities that many parents have. For boys, the internet often becomes the field of a "gender conflict." For girls who use the internet in ways that parents perceive as more productive (communication, research), digital life is more smoothly integrated into the family routine.

At the same time, the school presents a picture of positive intention but partial implementation. The decision to encourage all teachers to use the internet is important. However, in practice, the integration of technology often remains limited, "trapped" in specific courses, rather than permeating the entire educational environment. This gap between intention and action may explain why many students doubt whether the computer really helps them understand the lesson better.

Perhaps the most important conclusion concerns the students themselves. The research reveals two distinct models of digital behavior. Girls emerge as more active and strategic individuals in the digital space, using the internet systematically to support and enhance their own learning. This practice seems to lead them to greater certainty about the benefits of the internet. Boys, although technologically competent, show a more entertaining approach and less participation in such self-organized learning activities, which may also be associated with their less positive perception and the more friction they experience.

In closing, the conclusions of this research lead us to a clear message: In order to truly utilize the internet as a tool for learning and development, we must stop treating it as a homogeneous phenomenon. A differentiated approach is needed that recognises and supports the different digital pathways of boys and girls. A complete and not partial integration of technology into the school is required, transforming it from a subject of study into a basic teaching tool in all subjects. In addition, it is necessary to create a bridge of trust and cooperation between school and family, to jointly manage the challenges and enhance the potential of this new digital field. Only in this way can the digital world stop being a battlefield and become a real ally in the search for knowledge and maturity for every teenager, wherever they live.

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