



Article

# Internet Use by Secondary School Students: A Digital Divide in Sustainable Societies?

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Abstract: Although the use of the Internet is generalised, its potential as a teaching tool is rarely taken into account. At the same time, there exists a digital divide affecting vulnerable or disadvantaged groups: students of foreign origin and students with special educational needs. It is necessary to identify how inequality can be overcome to reach the objectives set by the United Nations regarding sustainable forms of development for education and to foster more inclusive and egalitarian societies. In this research with students aged 12–16, the objective was to establish profiles according to gender, social class, ethnic background and educational special needs. We used a mixed methodological design, applying a questionnaire to 2734 students from 15 centres and qualitative data collection techniques. We made a descriptive and inferential analysis (SPSS program) and a qualitative data content analysis supported by the "Maxqda" program. The results show that, although most students have Internet access, students of foreign origin and students with special educational needs use this resource less frequently. There are significant differences for gender. Likewise, social divide has an impact on the learning potential of the Internet. Some proposals for improvement are provided, from the framework of the school, with a view to improving socio-educational equity and inclusion in societies in search of a more sustainable form of development.

**Keywords:** Internet; Secondary Education; use; access; digital divide; gender; students of foreign origin; students with special educational needs

# 1. Introduction

## 1.1. Inclusion and Equity: Sustainable Development in Education

The successful resolution of interconnected challenges of financial, social, cultural and environmental sustainability are essential for the future wellbeing of humanity and the planet [1]. Therefore, education plays a key role in the achievement of the 2030 Agenda for Sustainable Development, as it appears as an individual goal broken down in 7 targets and 3 means of implementation [2]. One of the targets is to achieve a *Quality education* to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; and it is closely related to another target that considers a *renewed and wider attention to inclusion, equity and gender equality*. In short, we intend to remove gender disparities and ensure a more equitable access to all educational and professional training levels for the most vulnerable population groups, including persons with disabilities and indigenous communities.

Even if the 2030 Agenda for Sustainable Development [3], was born as a cross-governmental commitment that included 17 goals combining the three dimensions of sustainable development-financial, social and environmental-, the global degree of development of such

goals in education is still insufficient, as there is a large gap between the present situation in education and the proposals of the 2030 Agenda for a sustainable future. From this position, this research intends to assess the situation and check if there is a divide between educational reality and UNESCO's aspirations aimed at reorienting education and teaching so that all students have the chance to acquire the necessary knowledge, skills, values and attitudes to contribute to a sustainable future [1] To this end, the research we are trying to describe has gone back to the voices of students of levels 3 and 4 of Secondary Education in the Region of Murcia, who were asked about their perspective with regard to the use of Internet, and we analysed the potential digital divide according to the different students' use profiles, based on their nationality, gender, socio-economical level and specific educational support needs. All of that in order to analyse if such inclusion, equity and gender equality mentioned in the 2030 Agenda have taken place in educational praxis.

We start from an essential premise: the fact that education is the basis on which societies are constructed and that its primary purpose is to acquire an understanding and knowledge of the world, as well as education to lead an active life with no discrimination of any kind, always fostering active citizens within a social and political democracy [4]. However, it is also true that ensuring students' access to school is not enough to guarantee inclusion and the implementation of the necessary equity, as the study of school reality teaches us that there are vulnerable students in the education system who show learning difficulties and are referred to special diversity awareness programmes, where they lack certain basic learning [5–9].

Likewise, we may find other exclusion situations at school derived from the use and consumption of ICT, inasmuch as there is a digital divide mostly related to the student's lower social class [10]. We must consider that the access conditions and possibilities offered by Information and Communication Technology (ICT) have not prevented margination, poverty and inequalities [8]. Therefore, inclusivity and integration challenges are present in knowledge society [11]. Likewise, the digital divide may come from cultural diversity, ICT access and consumption differences depending on their country of origin and the family resources of many students of foreign origin [12,13]. Certainly, intercultural and inclusive education is trying to remove discriminatory barriers, which involves educating for respect, tolerance, equity and, in short, against any kind of exclusion [14], but this is complicated in daily practice. Schools play an essential role given their ability to include students of foreign origin in the reception society, providing the necessary support [15], but it is essential to analyse to which extent.

## 1.2. Internet and the Digital Divide

The progress of Information and Communication Technology (ICT) in today's society has led to the development of the scope of fixed and mobile broadband networks, as support for the use of digital services, offering a better integration of technological devices in people's lives. The increase in connection time and use diversification, together with the primacy of mobile phones, the most popular mean to access the Internet compared to other devices, is fostering a more and more communicative interaction among users [16,17].

This reality, mediated by the technological context in which new devices add immediate portability and access, turn them into increasingly important tools in education [18,19]. In this regard, there has been a constant concern on the endowment of technological resources to schools, which has become a relevant theme included in multiple institutional reports [20–25] in order to compare this reality among different European countries. One of the most recent, *The Survey of Schools: ICT in Education. Benchmarking Access, Use and Attitudes to Technology in Europe's Schools* [26], has presented the outcomes of a large-scale survey promoted by the European Union, integrated within a set of activities to collect information, taking into account the priorities formulated by the European Commission with regard to the Digital Agenda for Europe i2020 [21] to assess the progress of ICT integration and compare the evolution of each country with regard to Internet connection, broadband and number of devices per student, insisting in infrastructure issues as one of the most important barriers for ICT integration

in class, together with other aspects related to school equipment, connectivity and access, as well as the pedagogical use of ICT [27]. The results obtained confirm certain standstill faced to the following paradox: on the one hand and regarding society, teachers and students are good Internet users, with portability and access; however, schools do not develop appropriate training actions and specific plans to facilitate such integration. The description of some features of the education policies aimed at ICT integration in Europe provides evidence of the need for characterizing good practices as the axis of innovation and educational enhancement [28].

In the context of Secondary Education, the scenario where our research work is placed, we have found the first generation that has born and grown within a completely digital environment, conditioning their values and their way of connecting the world, the so-called Millennial Generation, Generation Y, Generation Ipod or Digital Natives [29–31]. Teenagers are permanently connected to the Internet through different devices, from which they can access all kids of information and get connected with others. They do not understand the division between real life and virtual life and they perceive cyberspace as a continuation of daily life reality. However, we cannot forget their heterogeneity and the differences between them. We have confirmed that minors are not much competent using ICT in learning areas, as they have not received enough training at school. The concept of being a digital native [32,33] does not involve a strategic use of technology, as it is not derived from young people's abilities. Despite of being born surrounded by digital tools, their use of technology is more linked to leisure, entertainment and social relations; for this reason, they question the relationship between training and a good use of ICT. The most characteristic trait of this interactive generation is that its affective allies are the new screens configured for two basic purposes: a ludic purpose and being in contact with their friends and peers, just like its consumption is marked by a mainly individualized use that makes them be continuously connected through the Internet with a need for participating in an active manner, generating contents and sharing experiences to create and reinforce their identity [34].

If the use of the Internet has increased notoriously, the digital divide, understood as the distance between those persons and communities who control, have access and use ICT in an effective manner and those who do not [35] evolves and increases together with the technological development. The dividing line between those who do not have the chance of benefiting from the ICT in contrast to those who still cannot do it appears in four types: intragenerational, intergenerational, geopolitical and socioeconomic. The factors related to this digital divide are the subjects' lifecycle, the home socioeconomic level and the different lifestyles [36].

In the UNESCO report [37], the digital divide was one of the five obstacles that prevent knowledge society from developing; therefore, reducing it is a critical objective if we want new technologies to contribute to development and promote the emergence of real, fairer and more equitable societies, at the same time that constitutes a challenge of such importance that governments shall not be able to deal with it on their own and shall need a close cooperation between public authorities, international organizations, the private sector, the associative sector and civil society.

Likewise, one of the political priorities of ICT education is focused on the good use and mediation in the Internet of minors and young people, because we confirmed that a large portion have not received any education at all [38].

In this regard, there is an urgent need for developing an educational dimension that ensures an enhancement of this area at home and at schools among those who lack education and need guidance in their praxis to benefit from the possibilities offered by the Internet [39]. At the same time, we need to deal with digital exclusion conditions, improve Internet literacy levels, develop critical assessment skills and develop assessment resources. Exclusion depends on the quality of use: it is opening a new gap between those for whom Internet is a more and more diverse and stimulating resource and for whom it still is an occasionally useful resource, but quite less meaningful [40–42]. We intend to deal with the potential risks with measures such as legislation adaptation, turning the Network into a safer space, creating social awareness on the importance of security in the Internet and digital literacy to look after those groups of adolescents and young people that, due to socioeconomic reasons, a restrictive

Sustainability **2018**, *10*, 3703 4 of 14

mediation or other factors, see considerably reduced the access both to digital social networks and the use of applications and web browsers, which could be reduced to a diminution of socialization capacity and information access [43]. Finally, the findings [44] show that there are certain inequalities in the use of the Internet according to gender [45,46], specific needs of learning support [47] their country of origin and their sociocultural stratum [48] especially regarding parental mediation. Those of the most disadvantaged families receive less mediation by their parents and at home and they often use less technical mediation tools both in computers and in mobile devices. Therefore, initiatives that promote minors' digital inclusion must still constitute a priority.

## 2. Materials and Methods

## 2.1. Purposes

This work has a double purpose. On the one hand, establishing which are the gender-based models of use and consumption in 12–16 years old students; on the other hand, collecting the content use and consumption profiles obtained, according to the type of students (autochthone, of foreign origin and with Specific Needs of Learning Support) and their group and social class.

# 2.2. Population and Sample

We carried out a selection of centres among all the students of Compulsory Secondary Education (ESO) of the Autonomous Community of the Region of Murcia taking into account certain criteria previously established by the research team. The selection was a two-stage stratified random sampling, in which the only criterion was the locality, trying to represent our universe proportionally to its distribution throughout the Region. After stratifying the universe by areas, we selected both localities and centres randomly. Therefore, after carrying out the sampling selection, the participants of this research work were 2734 students of 15 centres located in different areas of the Region of Murcia, with a level on confidence of 97% and a sampling error of  $\pm 2.89$ . After selecting the sampling, we carried out the following stages:

We contacted the Education Administration to ask for the collaboration of the fifteen education centres that collaborated in this research. Then, we proceeded to phone a representative of the management team and/or the adviser of each centre to explain the project and its goals. After informing them of our interest to count on their collaboration we asked them for permission, availability and interest to develop the research work in their centre.

Later we maintained communication to confirm the participation and specify the meeting date at the centre with the adviser and tutors of levels 3 and 4, to establish the collaboration and guide the application process of the information collection tool. It is worth noting that, upon the distribution of the surveys, researchers and collaborators moved to the centres, where they transmitted the purpose of the research, trying to involve participants in it. After performing a brief analysis of the sample, we shall establish its profile considering criteria such as school year, gender, place of birth, job and the level of education of the father and the mother. With regard to the year in which the research students are enrolled, they were distributed equally in percentage terms, 53% belongs to 3rd ESO year and 47% to 4th ESO year, the average age being 14.93. Regarding gender, percentages are quite similar too, even if the presence of male students is 1.4% higher in this research.

Considering the place of birth of young people and the information collected, in order to make it easier to handle, we have reduced it to two categories (students who were born in the country and those who were born outside our country) to identify, according to this classification, 80.7% as autochthone students of the and 19.3% as students of foreign origin (European and Latin-American, African or Asian).

Regarding students with Specific Needs of Learning Support (NEAE), 82.2% of the students do not present such needs, but 17.8% do present such needs. These students showed specific learning difficulties, educated in curricular diversification programs, mostly motivated by absenteeism and

Sustainability **2018**, *10*, 3703 5 of 14

repeating a year. This group also included students with other motor and psychological disorders or developmental disability.

The categories related to the family context and the socio-economical level of the sampling students were included in Table 1:

11.1% 37.2% 20.1%	6.3% 26.1% 6.9%
37.2%	26.1%
20.1%	6.9%
	0.770
3.8%	1.2%
9.5%	3.7%
5.7%	6.9%
3.7%	5.5%
7.8%	6.5%
0.10/	36.9%
	5.7% 3.7%

**Table 1.** Parents' professional categories.

In addition, the information provided by the students surveyed reveals that the levels of education reached by their parents are practically similar as we can observe in Table 2:

Categories	Fathers	Mothers
No studies	9.6%	9.5%
Basic	39.4%	39.2%
Secondary	35.1%	35.6%
University	15.8%	15.6%

**Table 2.** Parents' level of education.

Taking into account original variables such as father and mother's studies and the job of the head of the family, we established three categories of social class that we used in the analysis (lower, middle and higher). This way, the first lower class group would include students whose parents did not pass basic or compulsory studies and their job was salaried employee in manual labour classified as professional semi-qualification.

In middle class, we would have students whose parents had (at least one of them) post-basic studies (Secondary School or Vocational Training), whereas their jobs go from qualified technicians or supervisors to small entrepreneurs and freelancers.

Finally, in higher class, at least one of the parents has university studies and, the other, has completed at least a basic education, as well as their jobs are high-level, non-manual supervisory, management, administrative or technical works when they work on a paid employment basis or when they work on a self-employed basis in business with other employees, different from the primary sector.

#### 2.3. Techniques and Instruments

Regarding the techniques and tools applied, we used the survey descriptive method, using the survey as an information collection tool, with an internal reliability or consistency of 0.787. It was structured in 6 dimensions with a total of 74 items grouped in: *Identification, Internet, Social Media, Mobile Phone, Video game console and Television*. The first dimension, aimed at collecting students' ID data. The second dimension refers to the Internet, including questions on consumption, access and computer equipment that provide the necessary information on the use of this widespread tool. This dimension presented an internal consistency of 0.746.

After completing the survey, it was subjected to an expert opinion for its validation and assessment, through four experts in research methodology and design, as well as experts in the research subject that made up our research team and ICT training advisers of Teachers' Centres. The assessment of

Sustainability **2018**, *10*, 3703 6 of 14

the survey content was performed in two stages; the first one was focused on assessing the construct or object of study, and the second in assessing each item's content. To facilitate their analysis, items were grouped by dimensions and sub-dimensions, based on the research goals. Besides the survey, we determined the use of a qualitative technique: Phillip 66. This is a group dynamics technique based on group organization to prepare and exchange information through an effective management of time [49]. A large group is split in subgroups of 6 persons to discuss a subject for 6 min and reach conclusions. A general conclusion is later extracted from the report of all the subgroups. For this purpose, we selected 157 students from 2734 students of 15 centres (6% of the surveyed students) of the 5 education centres involved. The selection criterion was mainly based on the significance of the survey results, this is, a higher level in the use of ICT or, on the contrary, a lower level than the centres' average. This technique was developed with the students of the last levels of Compulsory Secondary Education (ESO), and we held one session with them in order to work in depth certain questions extracted after the quantitative analysis where we wanted to investigate the meaning of some answers obtained in the survey on the motivations, effects, problems and beliefs about the use they make of the Internet, such as: Is Internet helpful to do your homework? Is it beneficial for your education? What would happen if you could not access the Internet for two weeks?

## 2.4. Collection Procedure and Result Analysis

Regarding the information collection procedure, as stated above, we had a main contact person in every centre (usually members of the management team and advisers), who transmitted the information to the other stakeholders and distributed surveys and collected them when their colleagues had them completed. The research group shared out responsibilities and checked all the centres had a reference person to solve any enquiries arisen during the information collection process.

After collecting all the surveys, the first process addressed was data coding to proceed to prepare the matrix for statistical processing. After coding all the variables, they were transferred to the statistical package SPSS.22 for Windows, for quantitative data process.

The statistical analysis consisted of an exploratory study to refine and correct anomalous data and the use of statistical techniques for quantitative variables, both from a descriptive perspective and a two-variable and multivariable analysis.

The descriptive analysis was carried out with the appropriate frequency and percentage tables. We also used the signification tests for the two-variable analysis, with Chi-square statistical calculation. For the multivariate analysis, we used the "Homals" multi-set correlation analysis.

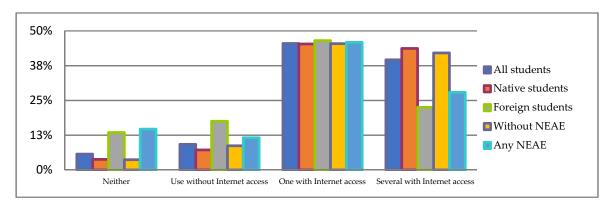
On the other hand, for the qualitative analysis, students' group sessions were transcribed and later we proceeded to a content analysis aided by the "Maxqda" programme. With this software, after transcribing all the students' answers, they were classified according to certain categories established in advance that were the object of our study, obtaining the frequency of the answers and allowing their classification. Through these variables, we wanted to know if, according to them, there were any differences in the use of ICT by students.

## 3. Results

Equipment, Access, Use and Internet Consumption

Regarding students' equipment at home for computer-mediated Internet access we can highlight that most students, 85.1%, has a computer at home with access to the Internet. 15% of the students who do not have Internet access at home, 9.2%, have a computer with no Internet connection service, and only 5.7% of the students do not have any computers at home. If we analyse these results in depth, we observe that there is a significant difference with regard to the possibilities of access to the Internet based on the students' origin ( $\chi^2 = 168.321$ ; p = 0.000) and depending on if they present Specific Needs of Learning Support (NEAE) or not ( $\chi^2 = 108.593$ ; p = 0.000). We can verify that these

access possibilities are lower in the case of students of foreign origin and if they present any NEAE, as shown in Figure 1:



**Figure 1.** Equipment of computers with Internet access.

To get to know the time dedicated to this tool, we asked students the hours devoted to this purpose in school and non-school days. Regarding school days, the highest percentage can be found in students who said that they dedicated 1–3 h in the Internet (40.7%), followed by percentage corresponding to those who use it for less than 1 h a day (32.3%); the percentages of the ends are the lowest, and 17.3% corresponds to the group that indicated that they dedicated more than three hours a day and 9.9% to the group that referred that they did not dedicated any during school days. Regarding school days, there is an increase of the time dedicated to Internet access; increasing the percentage of students who dedicated more than three hours to 30.2%. With regard to the groups established, we observed significant differences during weekends, specifically, in the case of students of foreign origin they use the Internet less hours than the rest ( $\chi^2 = 52.556$ ; p = 0.000); and during school days in students who present any NEAE, who use the Internet more hours than the students' global average ( $\chi^2 = 18.648$ ; p = 0.000).

To analyse the data in depth, we have established four groups depending on the origin of the students, the results show that European and Latin-American students, do a more intensive use of the Internet network than the remaining groups established (African or Asian).

Likewise, we need to add that, according to the results of the multivariate analysis, the students' social class is essential when it comes to explain the use and consumption of the ICT by students, so that we can talk about it as one of the key factors that keep determining a digital divide between the type of use and consumption made of technology. Depending on the students' social group, we find that the preferred tool changes, as upper class students are those who use computers more often compared to those of lower class, who often choose the mobile.

As we can see in Figure 2 in both cases, there are percentage differences in upper and lower class students of more than ten points in both cases and we find them in signification tests, which are with a signification level below p = 0.001.

With regard to students' *use of the Internet*, we can outline the visits a to web pages, blogs, digital press . . . as this option has been chosen as the most frequent use by 39.0% of students, followed by seeing, uploading, downloading videos, films, series, images (33.8%). The next most common use would be sending emails, selected by 17.2%, leaving as the least frequent option playing online with 10.0%. It is relevant to highlight that there are differences between boys and girls regarding the type of use; we observed differences regarding the use of the Internet to play online, as 17.1% of the boys prefer to access the Internet for this purpose compared to 2.8% of the girls ( $\chi^2 = 151.797$ ; p = 0.000). We also noticed a lower use of the Internet to play online in the case of students with NEAE (6.7%), as they used the Internet to watch movies, series, etc. ( $\chi^2 = 18.436$ ; p = 0.000) more often than the rest. The percentages of the group of students of foreign origin ( $\chi^2 = 17.693$ ; p = 0.001) is similar to the group of students with NEAE.

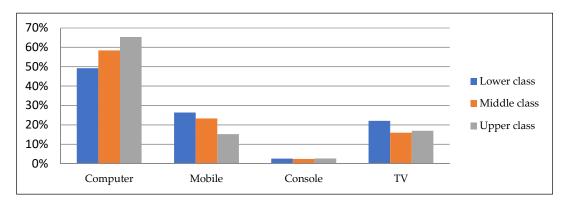


Figure 2. The most used device depending on their social class.

Models of use of Internet are based on the different groups (lower, middle, higher class). We have confirmed that the differences of use also come from equipment and access differences. This way, higher class students, with more and better resources, are those who make a better use of the Internet, using computers more often than mobile phones and devoting more time to educational than to leisure activities. On the contrary, lower class students use the Internet more often to have fun, and with less parental control.

Trying to focus on more educational uses, we asked students *how often* they looked for information in the Internet to do their homework (Figure 3). According to their answers, we distinguished two groups with opposite trends. 5.1% declared not to access the Internet for this purpose never and 40.6% almost never. On the contrary, 44.8% declared to use the Internet as a resource to do their homework almost always and even 9.5% stated that they resorted to it always. If we observe the results obtained referred to the frequency with which male and female students access the Internet to look for information for their work, we notice that, even if the results are slightly similar, there is a higher percentage of boys who do not make searches ever or hardly ever (49.0%) compared to 41.2% of girls ( $\chi^2 = 22.501$ ; p = 0.000). Likewise, there is a higher percentage of students with NEAE that ever (9.1%) or hardly ever (45.4%) uses the Internet for this purpose, compared to students without NEAE, with percentages corresponding to 4.3% and 39.6%, respectively ( $\chi^2 = 29.785$ ; p = 0.000).

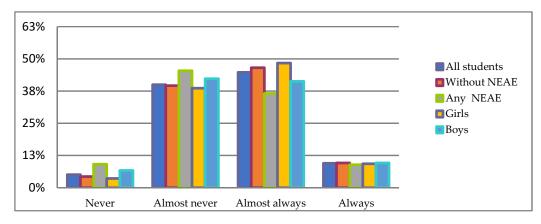


Figure 3. Frequency in the search of information for school homework.

To look into this matter, we asked the participant students of Philips 6.6 if the Internet helped them to do their homework; three fourths of the sample adolescents considered that the Internet helped them. With regard to the reasons for this, students think that it is useful because it helps them to look for information and delve into the subjects already taught in the classroom. However, none of them highlighted the need for using this tool to extend the contents developed at class. On the other hand, they also pointed out that this is a convenient, fast and simple tool to access information.

Yes, because in that tool they upload a lot of information and we use it in our homework and tasks. That is how I use it (Student 5).

Yes, because I cannot be bothered with search it in an encyclopaedia and the Internet is more convenient and faster (Student 23).

One fourth of the participants think that the Internet is helpful but is also harmful, as they agree with the aforementioned reasons but they also think that it distracts them, they waste time looking for information or leads them to forget about school homework and carry out actions more linked to leisure time (social media, games...). They also think that the information available in the Network is not always reliable and therefore they prefer the security of the contents included in textbooks as assistance when it comes to do school homework.

Yes and no, as it is more convenient, for example, if you need to search something in the dictionary, it is easier. And you can find information more easily, faster and for free. And not because the answers to the exercises are in the Internet or you ask Yahoo and this way you do not learn (Student 7).

Partially yes, because it makes my work easier and I can obtain good information very fast. But it is true that apps are sometimes distracting, like games, social media . . . In addition, not all pages have correct information (Student 20).

To have a more general view on the educational value that students grant to this resource we set out the following question: "Is the Internet beneficial for your education?". Most think that it is beneficial (50.1%) or very beneficial (17.9%), even if there is also a relatively high percentage of students in opposite positions who think that it is not beneficial (4.8%) or that it is not much beneficial (27.1%). Despite this positive perception on the benefits of the Internet, we observe that the percentage of students with NEAE who selected the "not beneficial" option doubles the percentage of students without NEAE who chose it ( $\chi^2 = 19.013$ ; p = 0.001). Considering gender-based differences, we see that male students' perspective is more positive than female students', as 20.8% selected the "very beneficial" option compared to 14.8% of female students ( $\chi^2 = 19.632$ ; p = 0.001).

We also asked about the use of the Internet by teachers in class. Regarding this question, students did not show generalized levels. Only 6.7% of students think that all or almost all their students use the Internet to develop their subject compared to 55.6%, who think that only a few do it and 37.6%, who think that teachers do not make such use.

According to the qualitative results, adolescents think that teachers should use the Internet in class more often in order to learn more. The reasons provided are different; some of the most recurrent among students are that with the Internet they have more possibilities to understand any explanation better, as the use of audio-visual contents (photos, videos, tutorials...) is part of their daily life and it helps them to improve their learning. They also mentioned financial issues, mentioning that they could cut the price of textbook expenses.

Yes, using it you can learn a lot faster. It is good for us to use a computer to explain thinks and search what we need easily (Student 39).

Yes, because they play tutorial videos that help us to understand things easily and their slides are wonderful (Student 102).

Yes, because we would not be so bored in class and it would be convenient and we could cut the price of books (Student 84).

However, not all of them agree with the use of the Internet in the classroom; there is a group of students who think that it would not be useful as the Internet is distracting, and they think that the Figure of the teacher is sufficiently important in their teaching-learning process, as they can get

Sustainability 2018, 10, 3703 10 of 14

to know and adapt the learning to the group taking into account their characteristics with no need for using the Internet; they also think that the textbook is necessary as a supportive resource for the process, as they see it as a guide where, with its help, they do not lose the information sequence compared to the Internet, which is a tool with a large amount of information, which gives rise to a sense of loss.

No, because Internet words are explained in a non-artistic, summarized manner and teachers express themselves in a simple manner and explain concepts better (Student 47).

No, because we could get away from the subject. If we use it, I would like it, but I will have the temptation of leaving the subject, I think it is not necessary, formerly there was no Internet in the class and everybody learnt what they needed for the future (Student 72).

To learn how to use the Internet and improve such handling, most students say that no one helped them, that they learn to use the Internet autonomously (67.0%). Those who received helped did it mostly through their family (17.3%), friends (12.5%) or teachers (3.1%). Those students who mentioned their family as a support to learn to use the Internet highlight mostly their brothers and sisters (54.9%), father (23.6%), cousins (8.2%), uncles/aunts (6.8%), mother (4.5%) or others (2.0%). With regard to group-based differences, we observe that students with NEAE received help more often than students with no NEAE from teachers and friends ( $\chi^2 = 22.991$ ; p = 0.000); autonomous learning was lower in students with NEAE.

To approach to the students' level of attachment or dependence to this resource, we asked students the following question: *If I was left without Internet for two weeks* . . . Most of them (68.2%) answered that "nothing would happen", compared to 17.9%, who selected "I would not know what to do", 7.6% chose "my life would be worse and 6.3% who said "my life would be better". If we focus on the existing differences among the different groups established, we observe that girls choose answers that reflect a higher dependency, as 21.9% think that they would not know what to do faced with that situation, compared to 13.5% of the boys ( $\chi^2 = 39.015$ ; p = 0.000).

We also wanted to know some of the high-inference aspects that are arousing present debates around the use of the Internet. We refer to family discussions provoked by the use of this tool and its use in order to make jokes (Figure 4).

Regarding the first one, we noticed a high percentage of students who declared that they had argued with their families sometimes about the use of Internet exceptionally (40.5%), almost always (17.9%) or always (4.8%). Only 36.7% said that they had never argued for this reason. The percentage of students with NEAE who have argued with their families due to the use of Internet is significantly lower than in students without NEAE ( $\chi^2 = 23.543$ ; p = 0.000), just like students of foreign origin ( $\chi^2 = 15.182$ ; p = 0.002) and female students ( $\chi^2 = 38.839$ ; p = 0.000).

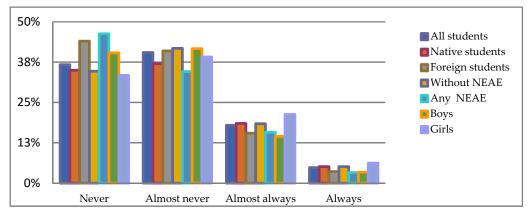


Figure 4. Family discussions for the use of the Internet.

Regarding the last subject, the use of these means to make jokes, the highest percentage is positioned in not having used it never (63.5%) or almost never (27.8%) for it; the percentages of always (3.1%) or almost always (5.6) are lower but existing. Likewise, as certain significant differences are visible regarding the gender group, Internet is used more often by male students for that purpose ( $\chi^2 = 67.818$ ; p = 0.000).

#### 4. Discussion and Conclusions

Most students have computers with Internet access at home, even if a very small percentage lacks this technological tool. The highest use of Internet takes place during weekends, and therefore there is a close relationship between this tool and leisure time, but its use as a training tool is not so widespread [16,17]. We can see the digital divide in the equipment according to the nationality; we noticed that students of foreign origin have less computer equipment at home, as almost twice autochthonous students have several computers with Internet access, whereas students of foreign origin have much less computers and plenty of them have a computer at home with no Internet access. The time spent using computers and the Internet is lower too. We have also confirmed this gap according to the Specific Needs of Learning Support (NEAE) [47]. Students with such needs have less computer equipment available as, unlike their classmates, they have less computers at home and more students who belong to this group do not have any computers or have one but with no Internet access. In addition, these students spend less time using the Internet, and there is a lower use of this tool as a training resource to do their homework, even if they receive more help from teachers and friends to learn to use them. From these results, it can be deduced that the most socially disadvantaged families (those of students from immigrant origin) have less mediation at home and often use less technical mediation tools both in computers and in mobile devices; therefore, promoting digital inclusion has become a priority [38,44].

We find significant differences in the use of the Internet between girls and boys, as boys use this tool to play online, a use barely highlighted by girls. In addition, they spend more time in the Internet during school days. Despite that, girls have more discussions at home derived from this use [46]. In this regard, it is essential a good use and mediation in Internet of minors and young people at home [38].

Regarding the educational use of the Internet, one of the most important conclusions is the most frequent use of the Internet by female students to do their homework. Students are aware both of the potential of the Internet to improve their academic performance and of the risks related to its use regarding distractions and the veracity of the sources consulted. From the analysis of the data we can deduct that there is no unanimity when it comes to qualify Internet with regard to the educational benefits that it provides and its use is not generalized; basically, half of the sample looks for information in the Internet to do their homework and the other half does not do it. As a result, and in accordance with [40] and [41,42], if the exclusion depends on the use quality: it is opening a new gap between those for whom Internet is a more and more diverse and stimulating resource and for whom it still is an occasionally useful resource, but quite less meaningful.

This suggests that we need to increase training in the use of Internet for the students as, even if they are able to detect the information weaknesses contained in the Network, showing a basic critical attitude, later they are not able to redirect their searches towards reliable and verified details existing in the Internet. Therefore, we will have to ensure at home and at schools an improvement of this area among those who lack training and are in need for guidance in their praxis to make use of the possibilities offered by the Internet [39] and turn the Network into an increasingly safe space and create social awareness on the importance of Internet security [43].

With the sample subject to study, we appreciate that there is a digital divide based on students' profiles (foreign-autochthonous, with or without special educational needs; gender-based or based on the socioeconomic level) and therefore, we are still far from the provisions of the United Nations Agenda 2030 in its two educational goals "Quality education for all" and "Inclusion, equity

and gender-equality". Without a doubt, education is the foundation on which societies are based [4], and its primary goal is to acquire a knowledge and understanding of the world in order to qualify to live in an active, undiscriminatory manner. However, we have noticed, through the results obtained in this research work, that there are still differences based on the profiles previously described. We consider that schools must take a turn to fight for equity, and that this change comes along with the training of teachers [25,27] who, from a collaborative work [48], close to social reality, have to use ICT at schools [10], to develop their subjects, facilitating times and instructions at school, in order to achieve a balance, as far as possible, between the different socioeconomic levels of the students' families of origin, the supportive educational needs and gender-based differences [13,45]. Education starts at families, but inclusion [5,6] starts showing at school and society, which must tend to be more equitable and sustainable.

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