

Juveniles and the new information technologies (IT). Use or abuse?

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ABSTRACT

The very frequent use of the new information technologies (IT) by juveniles generates some degree of social alarm. However, there is little data regarding the issue and this is the aim of this research, that is, to gather more data on the frequency of IT use by young people. The study sample consists of 1,710 12-17 year old juveniles. The data points to a very frequent use of the new information technologies by this age group (6.41 hours per day). The TV is the most frequently used technological device (97.23%) and the one used for the longest time (1.96 hours). Videogames, on the other hand, have the smallest frequency of use (55.26%) and are the devices used for the shortest time (0.70 hours). Gender related differences are found. Females use the mobile phone and the Internet more often than males, who make a more frequent use of videogames than females. There are also differences related to age. The older the person, the more frequent and longer use of the Internet and the mobile phone and the less frequent and shorter use of videogames. This data is discussed below.

Key words: minors, the new information technologies, abuse, addiction.

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INTRODUCTION

The new information technologies (IT) of information and communication are a relatively recent phenomenon which has generated important changes in our society and whose effects are far from being clear. Even though IT has undoubtedly contributed to improving people's quality of life, it does not seem to be without problems or risks. This situation has generated a situation in which there is no consensus and disparate opinions and very frequent alarmist attitudes can be seen, which is often common in these cases.

Certainly, there is an increasing concern in this regard, not only about the value of these Information Technologies, but also about the use that young people make of them. It is not uncommon to hear that young people often make an uncontrolled, inadequate or even addictive use of IT; however, there are no references as to what is meant by a controlled or adequate use of them. As a matter of fact, there is hardly any information about the use of these devices by juveniles. In short, there are many opinions but little data, so it is an imbalance to overcome.

First of all, we should specify what is understood by IT. IT is a wide and varied range of devices, instruments, tools, channels and supports

dedicated to the use, management, presentation, communication, storing and recovery of both analogic and digital information. It is easy to associate IT with the computer, the mobile phone or videogames, but not so much with television, which was one of the pioneers, the most often and longest used and probably the most powerful of all IT in our society. The common everyday use of television has made it become regarded as something 'habitual' for many years now. Due to this fact, its capacity to generate addiction is seldom taken into consideration. Actually, the fact that everybody spends some hours per day every day watching TV is accepted as something 'normal'.

IT has brought about a very important change in people's lives and in the functioning of society, since its use affects a great variety of areas. It is easy to appreciate many positive aspects in its use, among them: the fact that it facilitates immediate access to up-to-date information, its importance at work, in communication with other people, in getting to better know our own environment and other far-away or even remote ones, inaccessible for the majority and, especially, in entertainment and enjoyment of our free time. On the other hand, its use has special characteristics that cannot go unnoticed, namely it is omnipresent in practically all homes and work places; in some cases, it keeps some people company for the whole day. In addition to this, some IT demands attention and almost exclusive dedication for a long time every day.

This remarkable dedication of time and attention is also a fact in the use that juveniles make of IT, which has generated great alarm, especially among parents and educators, as it has been verified that a great number of young people have reduced attention to other activities traditionally acknowledged as being very positive, such as studying, reading, going out with friends or practising sport etc., in order to dedicate more time to different IT. Lack of reference criteria about the adequate use of IT makes it difficult to know to what extent young people's dedication to this type of activity can be considered normal or abnormal.

Certainly, there is already some data referring to Spain and although it is rather sparse and not always reliable, it can be used as a reference on the issue. Some of which are considered below.

The Internet

In 2002 the *Protégeles* (Protect them) Association conducted a study for the *Defensor del Menor* (Commissioner for Juveniles) entitled "Seguridad infantil y costumbres de los menores en Internet" (Child safety and juveniles' habits on the Internet). This research pointed out that 48% surfed the net every day but 65.5% of them did for less than five hours a week. It is worth pointing out, however, that 11% of those young people who admit using the Internet habitually manifest the following characteristics: a) the need to be often connected (37% of those surveyed); b) are frequently connected. In fact, 91% are connected for more than 10 hours a week; c) the search for sensation, not only for information, (among those who need to be frequently connected, 33% visit pornographic pages and 40% to pages related to violence.....).

The study "Jóvenes, sociedad de la información y relaciones familiares" (Youngsters, information society and family relationships), carried out by the *Centro de Investigaciones Sociológicas* (CIS) (The Spanish Centre for Sociological Research) in the year 2002, points out that there is at least one personal computer in 56.8% of Spanish homes. As for the behaviour of children younger than 18, it was verified that 59.9% of males and 45.4% of females used the Internet. It was admitted by 71.8% of parents that there were no norms regarding the use of Internet in their homes. Forty point four percent admitted that although they would really like to know what their children did on the Internet, they found it impossible to do so.

But data changes quickly due to the

progressive introduction of these devices. According to the report "Penetración Regional de la Nueva Economía" (Regional Penetration of the New Economy) carried out by CEPREDE (The Centre of Economic Prediction) for the Community of Madrid in 2007, 72.3% of 10 to 14 year old children use the net and 47.95% start to use it from age 16. There are important differences among autonomous regions, ranging from 88.5% in Catalonia to 68.6% in Cantabria.

The survey on Spanish youth conducted by the CIS in 2007 stated that 70.1% of 15 to 29 year olds used the Internet.

Mobile Phone

According to the report by the Commissioner for Juveniles "Seguridad infantil y costumbres de los menores en la telefonía móvil" (Child safety and juveniles' habits on the mobile phone, 2005) having a mobile phone does not entail using it mainly for making phone calls. Only 24% use it to make calls on a daily basis. The mobile is mainly used for sending an SMS, which 50% do on a daily basis.

This report also points to behaviour that may indicate problems associated with the use of the mobile phone: a) feeling badly when they are made to do without one (38%), b) admitting they have even lied, cheated and stolen from their parents to recharge their account (11%), and c) admitting having excessive mobile phone costs (25%).

According to the 2007 "Penetración Regional de la Nueva Economía" report, 94.7% of Spanish homes had a mobile phone and 58.3% of the 10 to 14 year old youngsters had one too, although with big differences among the autonomous regions, ranging from 67.9% in Extremadura to 50.7% in Catalonia.

A survey on Spanish youth (CIS, 2007) proved that 96.1% of 15 to 29 year olds had a mobile phone, 18.9% more than in the year 2002 (CIS, 2002). The most frequent use of it was to send an SMS (32.6%) and to call friends (28.1%). It is worth pointing out that 82.5% of the people with a mobile phone state having it on permanently, and 57.8% state that, in case of robbery or loss, they would immediately get a new one.

Videogames

The data available indicates an important penetration of the use of videogames in 11 to 19 year old juveniles. (see Table 1)).

Penetration of games by age in 2006	Total population n= 44,108,53	Total players n= 8,821,706	PC players	Videogame console players	Mobile phone players
11-13 year olds	1,303,283	77.0%	53.7%	60.3%	31.0%
14-16 year olds	1,358,606	79.4%	59.3%	58.8%	37.1%
17-19 year olds	1,458,122	54.9%	37.9%	37.4%	26.6%

Table 1: Players by age, according to the *Estudio de Hábitos y Usos de los Videojuegos* (Study on habits and uses of videogames) (ADESE, 2006).

The 2006 annual report by Adese (Asociación española de distribuidores y editores de software de entretenimiento) (The Spanish association of distributors and editors of entertainment software), points out that videogames take up 54% of the total audiovisual leisure time in young people and teenagers, ahead of the cinema,

music and video films. It also states that these types of games are a more frequent activity for males than for females (85% versus 52%).

The data available from the 2005 *Protégeles* (Protect them) study for the *Defensor del Menor* (The Commissioner for Juveniles) about the young (10-17 year olds) and videogames points out

the following:

- a) Even though the use of videogames decreases with age, 69% of young people habitually play with them, ranging from 78% in primary education (grades 1 to 6), to 73% in the first cycle of compulsory secondary education (grades 7 and 8), 65% in the second cycle of compulsory secondary education (grades 9 and 10) and 52% in post-obligatory secondary education (grades 11 and 12).
- b) The young people admit that this type of leisure takes time away from other activities. Thus, 28% admit to a decrease in the time to study, 21% to be with the family, and 15% to be with friends.
- c) 14% of those surveyed admitted to being 'hooked' on some videogame but with important gender differences: 7% of girls versus 21% of boys.

Television

There is no doubt that the deep rootedness of TV in the lives of juveniles is very important. Audience surveys (Sofres, Estudio General de Medios) point out that Spanish young people watch TV an average of 218 minutes a day, only exceeded in Europe by British youth with 228 minutes.

But not only is the very frequent viewing of TV high, but also the conditions in which the youth watch it are striking. The 2004 *Sondeo sobre los hábitos de consumo de televisión y de nuevas tecnologías de la infancia y juventud* (a survey on television and the new information technologies user habits in childhood and youth), which was conducted by the *Confederación española de organizaciones de amas de casa, consumidores y usuarios (CEACCU)* (The Spanish Confederation of organisations of housewives, consumers and users) with a sample population of 900 Spanish families, found that 4 to 12 year old children spend 960 hours at school, practically the same number of hours that they spend in front of the TV; that 32.3% of them have a TV in their bedrooms; and that 750,000 children watch TV after ten o'clock in the evening and 20,000 after midnight. Out of the total time that children spend in front of the TV set, only 25% corresponds to child programmes. According to the study *La televisión y los niños. Hábitos y comportamientos* (Television and children. Habits and behaviour) (CIS, 2000), two out of three Spanish parents openly admit that they do not control what their children watch. Only 30% of Spanish parents always or almost always watch TV with their children.

The use of TV increases with age. It is used daily by 79% of children younger than twelve, by 86% of those between 7 and 11, and by 92% of children aged twelve or older. The data by CIS (The Spanish Centre of Sociological Research) set out the number of hours that juveniles spend in front of the TV set. On working days, 44.7% watch TV between 1 and 2 hours and 24.1% between 2 and 3 hours. Only 1.2% never watch TV Monday to Friday and only 4% do so for more than four hours.

With reference to possible problems with TV, it is worth pointing out that, in this survey, 53% of the parents of children younger than 6, 63% of those with children between 7 and 11, and 67% of parents whose children are older than 12 think that

their children watch too much TV or watch it a lot. According to CIS (2007), 49.3% of the surveyed families think that their children watch TV between a lot and quite a lot.

As emerges from this report, the available data is scarce; however, it all coincides in pointing out that the use of IT is high among juveniles and that associated with its use, problems have been detected, even by the users themselves. Also, in some of these studies important differences in the use of IT, which are associated to age and gender, have been found. Finally, it is important to highlight that data changes quickly with the passage of time, owing no doubt, to the progressive and quick introduction of IT. All in all, often even aside from the data available, there is already some alarm about the problems derived from the use of these devices, especially when used by the very youngest. For example, in the national health survey carried out in Mexico in 2004, it was shown that Mexican juveniles spent an average of 4 hours in front of the television, which is, after sleeping, the activity they spent the longest time on. However, in spite of the important differences in the available data, it is not recommendable to extrapolate from them.

According to the state of the issue in question, it seems important to accurately identify how young people use IT and what behaviour can be regarded as 'normal', or, at least, as habitual. Furthermore, it seems important to establish differences in the use of these devices in function of age and gender. This is the objective of this study, namely analyse the behaviour of young people in relation to IT.

OBJECTIVES AND HYPOTHESES

On the basis of the above, we decided to conduct a study with the aim of analysing the frequency of use by juveniles of the new technologies of information and communication by focusing on Internet, the mobile phone, videogames and television. These four devices were selected because they are the ones most frequently used by young people and the ones that have created most impact on them.

The initial hypothesis is that juveniles often use these devices, but in a different way, depending on age, gender and the type of school they go to.

METHOD

Participants

The study was carried out with a sample of 1,710 juveniles going to school in the Community of Madrid, 40,88% of them females and 59,12% males. The age of the participants ranged between 12 and 17 years, with a mean of 14.03 (see Table 2).

By means of the *Protégeles* Association six schools of different types, namely state run, private and state assisted private schools and from various areas of the Community. One of the schools was public (11.7% of the total sample), 2 were private (37.1%) and the 3 remaining were state assisted private schools.

Age	Number	Percentage
12 years	290	16,9
13 years	350	20,5
14 years	370	21,6
15 years	471	27,5
16 years	169	9,9
17 years	60	3,5
Total	1710	100

Table 2: Percentage of juveniles in the sample by age.

The sample selection was carried out by expediency. The *Protégeles* Association asked some schools in the Community of Madrid to participate in the study. The Association contacted some schools in which they were going to lecture in January and February 2008, the time when the researchers had decided to carry out the test. In addition to asking for their collaboration, the school's headmaster/mistress had the objectives of the study explained to him/her.

Assessment instruments

A specific assessment instrument was designed, the *Cuestionario de Detección de Nuevas Adicciones (DNA)* (The new addiction detection questionnaire) (NADQ) (Labrador, Becoña and Villadangos, 2008). After having collected data on age, gender and school, the questionnaire was divided into 6 sections. The first two sections provide information about frequency of use of IT and about the subjective perception of the problems likely to follow their use. The four following sections refer, specifically, to each one of the technological devices under study, namely the Internet, the mobile phone, videogames and the television.

Appendix I includes a copy of the questionnaire.

Procedure

First of all, after the questionnaire had been devised by a group of experts, a pilot test was made. The questionnaire was given to a population sample of 140 male and female subjects of different ages. The analysis of results did not make it necessary to modify the items, but it did necessitate the inclusion of a series of guidelines that facilitated the administration of the test.

The questionnaire was later administered in the schools selected by three psychologists who had previously been trained to do this. The administration was collective, but each of the students responded individually to their questionnaire.

FINDINGS

The data was analysed by means of the *Statistics Package for Social Sciences (SPSS-15)*. Firstly, a descriptive analysis of the sociodemographic variables was carried out to identify the general characteristics of the sample studied. Later, the questionnaire scores were analysed, which led to the following conclusions:

Frequency of use of IT. All the IT observed show a highly frequent use by juveniles, surpassing 55% when the 'often' and 'always' categories are studied together. Out of all the devices, the one most frequently used is the TV, as 97.23% report 'often' or 'always' using it. Next follow the Internet (87.43%) and the mobile phone (80.81%). Much farther behind them is the use of videogames (55.26%). These differences increase if only the maximum score in the maximum category ('always') is observed (see Table 3).

	Never		Sometimes		Often		Always	
	N	%	N	%	N	%	N	%
Internet	51	2,98	164	9,59	779	45,56	716	41,87
Videogames	271	15,85	494	28,89	774	45,26	171	10,00
Mobile phone	162	9,47	166	9,71	446	26,08	936	54,73
Television	10	0,58	37	2,16	311	18,19	1352	79,06

Table 3: Frequency of use of the Information Technologies

When the **gender** variable is considered, the following significant differences appear: Females show significantly higher rates than males in Internet

and the mobile phone, but lower in the use of videogames. No differences are found in the frequency of use of television (see Table 4).

	Never		Sometimes		Often		Always	
	N	%	N	%	N	%	N	%
Internet								
Females	9	1,29	53	7,58	322	46,06	315	45,06
Males	42	4,15	111	10,98	458	45,30	400	39,56
Videogames								
Females	220	31,47	294	42,06	169	24,18	16	2,29
Males	51	5,04	201	19,88	604	59,74	155	15,33
Mobile phone								
Females	44	6,29	46	6,58	160	22,89	449	64,23
Males	118	11,67	120	11,87	286	28,29	487	48,17
Television								
Females	3	0,43	9	1,29	140	20,02	547	78,25
Males	7	0,69	28	2,77	171	16,91	805	79,62

Table 4: Frequency of use of the IT by gender

	χ^2 value	Degrees of Freedom	Level of Significance (bilateral)
Internet	19.40	3	0.001*
Videogames	436.89	3	0.001*
Mobile phone	48.62	3	0.001*
Television	6.99	3	0.072

Differences also appear when the frequency of use is studied in relation to **age**. There is a positive correlation between age and the uses of the Internet

and the mobile phone, and a negative one between age and videogames. No differences are found in the use of the TV (see Table 5).

	Never		Sometimes		Often		Always	
	N	%	N	%	N	%	N	%
Internet								
12 years	12	4,13	43	14,83	173	59,65	62	21,38
13 years	15	4,28	39	11,14	171	48,86	125	35,71
14 years	14	3,78	35	9,46	166	44,86	155	41,89
15 years	7	1,47	34	7,22	180	38,22	250	53,08
16 years	2	1,18	10	5,92	68	40,24	89	52,66
17 years	1	1,67	3	5,00	22	36,67	34	56,67
Videojuegos								
12 years	19	6,55	92	31,72	152	52,41	27	9,31
13 years	32	9,14	89	25,43	192	54,86	36	10,28
14 years	76	20,54	118	31,89	143	38,65	33	8,92
15 years	98	20,81	120	25,48	196	41,61	57	12,10
16 years	34	20,12	56	33,14	69	40,83	10	5,92
17 years	12	20	20	33,33	21	35,00	7	11,67
T. móvil								
12 years	60	20,69	48	16,55	96	33,10	86	29,65
13 years	46	13,14	35	10,00	107	30,57	162	46,28
14 years	29	7,84	29	7,84	83	22,43	229	61,89
15 years	21	4,46	40	8,49	117	24,84	293	62,21
16 years	6	3,55	11	6,51	33	19,53	119	70,41
17 years	0	---	3	5,00	10	16,67	47	78,33
Televisión								
12 years	1	0,34	11	3,79	59	20,34	219	75,52
13 years	2	0,57	5	1,43	74	21,14	269	76,86
14 years	2	0,54	3	0,81	67	18,11	298	80,54
15 years	1	0,21	11	2,33	74	15,71	385	81,74
16 years	2	1,18	6	3,55	27	15,98	134	79,29
17 years	2	3,33	1	1,67	10	16,67	47	78,33

Table 5: Frequency of use of the New Technologies by age

	Correlation	T value	Level of Significance
Internet	0,23	9,77	0,001*
Videogames	-0,11	-4,79	0,001*
Mobile phone	0,28	12,13	0,001*
Television	0,04	1,75	0,081

Length of time of use of IT. The average number of hours spent on IT is high (see Table 6). In total, 12 to 17 year old juveniles spend an average of 6.51 hours daily on them with little gender related differences (6.40 hours the females and 6.52 hours the males). If the time spent on Internet is excepted, which may at times be dedicated to school work, the number of hours continues been high (4.91 total, 4.78 females

and 4.94 males). In all the cases, the television is the device that is used for the longest time per day.

There are significant differences in function of gender, the same as in the case of frequency, females use Internet and the mobile phone more than males, but less in the case of videogames. No differences are found in the use of the television..

	Internet		Internet		Videogames		Mobile phone		Television
	Media	Ds	Media	Ds	Media	Ds	Media	Ds	Media
Total	1,60	0,95	1,30	0,70	1,65	1,27	1,96	1,08	6,51
Females	1,62	0,91	1,09	0,33	1,79	1,37	1,90	1,06	6,40
Males	1,58	0,97	1,41	0,80	1,54	1,17	1,99	1,08	6,52

Table 6: Average number of hours daily spent on IT

	χ^2 value	Degrees of Freedom	Level of Significance (bilateral)
Internet	12,65	5	0,03*
Videogames	75,63	5	0,001*
Mobile phone	34,79	5	0,001*
Television	4,73	5	0,45

Significant differences also appear when IT is studied in relation to age. In general, the use of IT

increases with the age of the juveniles, except in the case of videogames (see Table 7).

	Internet		Videojuegos		T. móvil		Televisión	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
12 years	1,31	0,66	1,31	0,71	1,26	0,81	1,88	1,12
13 years	1,44	0,78	1,28	0,64	1,65	1,32	1,90	1,06
14 years	1,62	0,91	1,24	0,56	1,67	1,24	1,90	1,05
15 years	1,75	1,10	1,35	0,79	1,57	1,17	1,97	1,01
16 years	1,78	1,03	1,31	0,77	2,05	1,54	2,11	1,14
17 years	2,03	1,13	1,28	0,67	2,49	1,72	2,47	1,27

Table 7: Average number of hours daily spent on IT by age

	Sum of squares	Degrees of Freedom	F	Level of significance
Internet	59,62	5	13,78	0,001*
Videojuegos	2,16	5	0,89	0,49
Teléfono móvil	108,53	5	14,10	0,001*
Televisión	23,27	5	4,05	0,001*

Most frequent place of use of IT. The home is the most frequent place of use of these devices. In all cases, the mean is higher than 90%: 92.38% for Internet, 95.93% for videogames, 98.28% for the mobile phone and 97.24 for television. If these high rates are taken into consideration, it is not really

worthwhile contrasting them with other places in which IT is used, other than pointing out the little relevance of places alternative to homes. Nevertheless, it is worth highlighting that the greater the age the more frequent the use of Internet out of home (see Table 8).

	Home		Cybercentres		Other	
	N	%	N	%	N	%
12 years	270	96,08	4	1,42	7	2,49
13 years	304	89,94	19	5,62	15	4,44
14 years	335	93,84	8	2,24	14	3,92
15 years	438	94,19	18	3,87	9	1,93
16 years	146	86,90	11	6,55	11	6,55
17 years	48	81,36	10	16,95	1	1,69

Table 8: Most frequent Internet connection place by age

DISCUSSION

Even though the data is taken from a wide sample, its selection limits the generalisation of the findings. Nevertheless, they permit a relatively complete view of the use of IT by 12 to 17 year old juveniles going to school in the Community of Madrid.

The first fact to stand out is that *the use of IT is very high*. Over 80% report ‘often’ or ‘always’ using the Internet and the mobile phone and to a lesser degree videogames. However, the most often used IT is the television, as 97.25% report ‘often’ or ‘always’ watching it. Almost 80% (79.06%) report ‘always’ watching TV, a figure that almost doubles, in this category, the use of the telephone mobile and Internet. On the contrary are videogames, the least frequently used IT, in spite of the fact that 55.26% report their use in these two maximum categories. The percentage of participants who never use IT is really low, especially in relation to the Internet (3%) and television (0.5%).

In comparison to data previous to this research, the percentage of IT users is especially high. This can be due, first, to the fact that the data in

this study is more recent and, therefore, reflects the current trend of a higher use of these devices in general terms. The second reason for the high number of IT users in this study may be their social status, as the level of these participants is somehow higher than the average.

Differences are found in relation to gender (more use of the Internet and the mobile phone and less use of videogames by females), but they are not especially significant. The data from previous studies (Protégeles, 2002, 2005; Aftab, 2005), although similar, pointed to greater gender differences. The fact might be that, as the rates of use of the IT increase, these differences are decreasing due to the ceiling effect.

There are also age related differences. The use of the Internet and the mobile phone increases at least 2.5 times in proportion to increase in age. The most important change in the use of these two technological devices happens around age 14-15.

The frequency of use of television does not show any differences in relation to gender or age. This may be due to the everyday use of this device at all ages and, as a consequence, to the presence of important ceiling effects. In all the cases the rates are

almost the maximum, so there is little margin for the differences, which coincides with the idea stated in the Introduction of this study that the television has become something so common that it is taken for granted that it will be used for several hours every day.

The average time spent on using IT is high too, on average 6.51 hours a day, so more than one fourth of a day. Even though television is what people spend the longest time on (1.96 hours daily), the times spent on the mobile phone (1.65 hours), on the Internet (1.60 hours) and on videogames (1.30 hours) are important too. The data obtained is similar to that from recent studies carried out elsewhere in Spain (ADESE, 2006; Nueva Economía, 2007), which may indicate that the growth-rate is decreasing and the figures on use are approaching the maximum rates expected.

Young people use IT in their own homes, even in the case of mobile phones, which seems like a contradiction in terms. This means that they are going to spend more time at home and, for example, reduce their social and interpersonal activities. When IT is used at home, it is taking up periods time dedicated to social interaction outside it. In fact, the data seems to point in that direction. In the study by the *Protégeles* Association (2002), 84% of the young people who surfed the net did so at home. The percentage in this study has increased to 92.3%.

It is expected that, as the number of homes with connection to Internet increases, these figures will also keep increasing. In addition to this, an important part of the time used on IT is spent on contacting other people. This indicates that 'virtual' interpersonal connection, that is, the one mediated by IT, will be more frequent than the real face to face one, given that the distance between interlocutors is no longer a barrier to communication.

The fact that the mobile phone is used mainly at home may mean that either it is fundamentally used for activities other than communication, such as listening to music, playing games and having access to a diary, or that, as pointed out above, it is changing personal communication through the mediation of IT.

One more twist in this direction of individual isolation can be reflected in the fact that TV is losing strength as a way of the family being together. Having more than one TV set at home is something common, as is watching different programmes at the same time and so the members of the family divide up instead of staying together. The increasingly common fact that there is a TV in juveniles' bedrooms seems to verify this idea. In fact, the data points in that direction. In the year 2004 12% of juveniles watched TV in their rooms (CEACCU, 2004). The figure has increased to 21.67% in this study. In short, IT does seem to contribute to higher social isolation or to greater personal independence. The data confirms that the alarm generated in this respect is well founded, but the question is far from being answered. Is this positive or negative?

CONCLUSIONS

1. Young people frequently and regularly use the new information technologies. They connect to

Internet for an average of 1.60 hours a day, play videogames for 1.30 hours a day and watch television on average 1.96 hours a day. This makes an average of 1.63 hours daily spent on the use of the new technologies.

2. Television is the device most frequently used by young people, followed by Internet, the mobile phone and, finally, videogames.
3. Youngsters use the New Technologies mainly in their own homes, as 92.38% get connected to Internet from their homes and only 4.20% use cybercentres to do so.
4. The trend to make use of these devices at home increases with time, which shows that the New Technologies are increasingly present in households.
5. The use of the new technologies varies in relation to gender. Female youngsters use Internet and the mobile phone more than males, who spend the longest time on videogames.
6. Significant differences have also been found in relation to the frequency of use of the New Technologies in relation to age. Videogames are more often used by the youngest, whereas the time spent on Internet and the mobile phone increases with age.
7. Young people studying at state schools use the mobile phone with greater frequency. Videogames are used especially by youngsters from state assisted private schools, who make less use of Internet in comparison to other groups.

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Appendix 1

QUESTIONNAIRE FOR DETECTION OF NEW ADDICTIONS (DENA), Labrador, Becoña and Villadangos

GUIDELINES FOR COMPLETING THE QUESTIONNAIRE

1. Read each question carefully and answer each of them by ticking the box that best defines your behaviour.
2. This questionnaire is anonymous. In the personal information data only put your age and gender (*m* for male and *f* for female)
3. Questions 1 and 2 require responses to each one of the sections.
4. Questions 3, 4, 5 and 6 are to be answered only if they are applicable, that is to say, if the technological devices are used. (For example, if someone never plays videogames, all the sections in Question 4 should be left black.)
5. The first section of questions 3, 4, 5 and 6, referring to the place where these devices are used, require only one answer—the place where they are most frequently used. (For example, if someone watches TV in different rooms at home, only tick the place where you spend the longest time watching it.)
6. It should be borne in mind that in the third section of questions 3, 4, 5 and 6, referring to time spent, number 1 encompasses time between nothing and 1 hour; number 2, time between 1 and 2 hours, and so on.
7. The questions referring to time mean ticking the normal time. Please ignore exceptional situations or some given days.
8. The time of use of the mobile phone refers not only to the time during which you are speaking but also to the time used for sending SMS messages, the time while you are attentive to receiving SMS responses, while you are playing games or the time spent on connecting to the Internet.
9. The time spent is asking for the total time, including even the time that passes while you are using the device and doing another activity; for example, if you are having dinner while you are watching TV, the dinner time needs to be included in the time spent on using this device.
10. Question 5.2., referring to the person in charge the costs of the mobile, refers to the person who usually pays for the bills and pays the largest amount of money irrespective of exceptional surcharges.

Gender: M..... F:.....

Age:

1. Tick the box that best shows how frequently you do these activities:

	Never	Sometimes per month	Sometimes per week	Every day
Use the Internet				
Play videogames				
Go to a cybercafé				
Use the mobile phone				
Watch television				

2. Tick the box that best shows if any of these activities gives you problems because you spend too much time on it, because you argue with your parents about it, because you spend too much money on it, or because you feel you are hooked on it.

	Never	Sometimes	Often	Always
Using the Internet				
Playing videogames				
Going to a cybercafé				
Using your mobile phone				
Watching television				

3. USING THE INTERNET

3.1. Where do you use the Internet? Home..... Cybercafé..... Other.....

3.2. How many hours per week do you spend on the Internet?

Between 1-2... Between 2-5... Between 5-10... More than 10...

3.3. How many hours do you spend on the Internet every day? 1..... 2..... 3..... 4..... 5..... 6.....

	Never	Sometimes	Often	Always
3.4. Do you think you spend more time than necessary on the Internet?				
3.5. Do you feel badly when, for any reason, you cannot use the Internet although you want to?				
3.6. Do you think of the Internet for hours before getting connected to it?				
3.7. Do you ever argue with your friends because of the Internet?				
3.8. Do you ever lie to your family or friends about the hours you spend on using the Internet?				
3.9. Have you ever stopped doing an activity—going to the cinema, going out with friends—for the sake of the Internet?				
3.10. Have you ever tried to distance yourself from the Internet but you have not been able to?				
3.11. Does surfing the net relax you?				
3.12. Do you ever feel anxious if you have not been connected to the Internet for a long time?				

4. PLAYING VIDEOGAMES

4.1. Where do you use play videogames? Home..... Cybercafé..... Other.....

4.2. How many hours per week do you play videogames?

Between 1-2... Between 2-5... Between 5-10... More than 10...

4.3. How many hours do you play videogames every day? 1..... 2..... 3.....4..... 5..... 6.....

	Never	Sometimes	Often	Always
4.4. Do you think you spend more time than necessary on videogames?				
4.5. Do you feel badly when, for any reason, you cannot play videogames although you want to?				
4.6. Do you think of videogames for hours before playing them?				
4.7. Do you ever argue with your friends because of videogames?				
4.8. Do you ever lie to your family or friends about the hours you spend on playing videogames?				
4.9. Have you ever stopped doing an activity—going to the cinema, going out with friends—for the sake of the videogames?				
4.10. Have you ever tried to distance yourself from videogames but you have not been able to?				
4.11. Does playing videogames relax you?				
4.12. Do you ever feel anxious if you have not been played videogames for a long time?				

5. USING YOUR MOBILE PHONE

5.1. Where do you use your mobile phone? Home..... Cybercafé..... Other.....

5.2. How many hours per week do you use your mobile phone?

Between 1-2... Between 2-5... Between 5-10... More than 10...

5.3. How many hours do you use your mobile phone every day? 1..... 2..... 3.....4..... 5..... 6.....

	Never	Sometimes	Often	Always
5.4. Do you think you spend more time than necessary on your mobile phone?				
5.5. Do you feel badly when, for any reason, you cannot use your mobile phone although you want to?				
5.6. Do you think of your mobile phone for hours before getting connected to it?				
5.7. Do you ever argue with your friends because of your mobile phone?				
5.8. Do you ever lie to your family or friends about the hours you spend on using your mobile phone?				
5.9. Have you ever stopped doing an activity—going to the cinema, going out with friends—for the sake of your mobile phone?				
5.10. Have you ever tried to distance yourself from your mobile phone but you have not been able to?				
5.11. Does using your mobile phone relax you?				
5.12. Do you ever feel anxious if you have not been used your mobile phone for a long time?				

6. WATCHING TV

7.1. Where do you use watch TV? Home..... Cybercafé..... Other.....

7.2. How many hours per week do you watch TV?

Between 1-2... Between 2-5... Between 5-10... More than 10...

7.3. How many hours do you watch TV every day? 1..... 2..... 3.....7.....
5..... 6.....

	Never	Sometimes	Often	Always
7.4. Do you think you spend more time than necessary watching TV?				
7.5. Do you feel badly when, for any reason, you cannot watch TV although you want to?				
7.6. Do you think of the TV for hours before watching it				
7.7. Do you ever argue with your friends because of TV?				
7.8. Do you ever lie to your family or friends about the hours you spend watching TV?				
7.9. Have you ever stopped doing an activity—going to the cinema, going out with friends—for the sake of the TV?				
7.10. Have you ever tried to distance yourself from the TV but you have not been able to?				
7.11. Does watching TV relax you?				
7.12. Do you ever feel anxious if you have not been watched TV for a long time?				