

# Surfing the Web: the role of Social-Support in the adolescents' Internet use

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**Abstract:** This research analyzes what predictors determine either a problematic internet use (PIU) or a functional Internet use (FIU) in 574 adolescents (303 females and 271 males). A cross-sectional study was proposed based on the compilation of an online questionnaire. It was hypothesized that Online Social-Support positively predicts PIU only when Offline Social-Support is low and Online Social-Support positively predicts FIU only when Offline Social-Support is high. Results show that Online Social-Support doesn't predict PIU, while, Offline Social-Support negatively affects it. FIU isn't affected by Offline Social-Support, while Online Social-Support predicts it. Gender differences occurs in PIU, Offline Social-Support and number of acquaintances in favor of males.

**Keywords:** Online Social-Support; Offline Social-Support; Functional Internet Use; Problematic Internet Use; Adolescence

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## 1. Introduction

Thanks to the rapid diffusion of Information and Communication Technologies (ICTs), the Internet has rapidly evolved into a tool for ordinary use which has permitted the development of new applications that facilitate and enable not only communication but also many and varied activities [26,39]. The possibility of being continuously connected dramatically increases the amount of the time spent Online, and the Internet has become a notably pervading part of adolescents' lives. A current European research presented that older adolescents use the Internet more and as a multipurpose context compared to children and younger adolescents [30,54]. Moreover, the study of Lorenzo, Oblinger, and Dziuban [32] showed that adolescents have an active Online presence by enthraling more in creative and involved activities. Scholars have wondered how their Online life shapes their Offline life, mostly by attempting to answer the question: "is Internet usage good or bad for adolescents and young people?". Findings are inconsistent and go in two opposite directions.

On the one hand, researchers have shown the problematic side of the Internet use. For instance, Valkenburg, Peter and Schouten [56] have highlighted how the frequency of use of Social Networking Sites (SNSs) indirectly affected self-esteem and psychological well-being in a sample of adolescents. This frequency of use is affected by the frequency of positive feedback (e.g. "Likes" on Facebook or "Re-tweets" on Twitter) that they received on their SNSs profiles. Moreover, in another study, analyzing the relationship between social capital (i.e. the potential benefits of creating and maintaining interpersonal relationships), self-esteem and the use of SNSs in American college students, it turned out that those who had low self-esteem are more driven to use Facebook to maintain social capital than those who had higher self-esteem [50]. Individuals preferred Online Social-Support (e.g. chatting, vocal messaging) to Offline Social-Support (face-to-face interactions), because Online Social-Support is characterized by less harsh and more focused responses and less negative judgment, anonymity, and more expressive and uninterrupted communication [60].

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This means that the Internet as seen as a dangerous tool capable of reducing adolescents' resources rather than boosting them.

On the other hand, other researchers have found evidence of the empowering nature of the Internet. Studies of Frozzi and Mazzoni <sup>[16]</sup> and Mazzoni and Iannone <sup>[34]</sup>, have shown that the same results found in the American college students are visible in Italian students. Regarding this point, according to Benvenuti, Mazzoni and Piobbico <sup>[5]</sup>, using the Internet during the transition is fundamental for sharing information or, for the adolescents, communicating with peer groups. These relationships greatly influence the dynamics governing the use of the Internet and its applications (both in problematic and functional ways) between males and females' adolescents. In this regard, some studies in literature have highlighted gender differences in favor of males compared to females, in the use of the Internet <sup>[19]</sup>. Despite technologies having spread very rapidly in recent years, with the mass diffusion of smartphones and tablets, a digital divide in the use of ICTs between females and males still exists <sup>[59]</sup>. Cultural characteristics that drive males to use the ICTs and the Internet more than females <sup>[37,52]</sup> is one of the most important factors for this digital divide. In his study Griffiths <sup>[18]</sup> revealed that, although the males use the Internet longer than females, they use it mainly to play video games, look for pornographic material and keep in touch with people (friends, acquaintances and unknown people). On the other hand, females tend to use it to keep in touch only with friends and for Online shopping. In addition, researchers found that females use the Internet for socializing and chatting to maintain the relationships that they have in their Offline lives <sup>[24,48,51,63]</sup>.

Social relations are fundamental during adolescence <sup>[20,40]</sup>. Friends (people with whom a person has a relationship that goes beyond mere knowledge) and acquaintances (people that a person knows but do not meet regularly) with whom adolescents are in contact are particularly relevant to build their Social-Support (both in their Offline life and in their Online one).

## 2. Offline Social-Support and Online Social-Support

Social-Support is defined as [...] the assistance and protection that one receives from others, and a social network is the group of people who provide this help and protection [...] <sup>[22,42]</sup>. While, the perceived Social-Support is a person's particular evaluation that could assess how their social relations (both Online and Offline) could be real and supportive when they needed <sup>[28]</sup>. During adolescence the perception of Social-Support and the social connectedness will be fundamental within the peer group, and could predict psychological wellbeing over time <sup>[25]</sup>. Seeing the widely diffusion of SNSs and the Internet communication in the last decades, the concept of Social-Support and its perception is changed: a different conception is needed that considers both aspects of Social-Support in Offline life and those concerning the Online life. In this regard, Wang and Wang <sup>[61]</sup> proposed the distinction between Offline and Online Social-Support. They revealed that having closer relationships and greater support Online increase the risk to use the Internet in a dysfunctional way, while having more support in the Offline life is negatively correlated with this problematic use. The explanation given by the authors is that the construction of predominantly Online bonds means that a person relies mainly on people in the Online world, and this implies a growing need to stay connected. Thus, if individuals feel less confident in face-to-face social interactions they tend to compensate their social needs and get support by frequently interacting with other individuals Online <sup>[35]</sup>. Therefore, Social-Support could be a factor that plays an important role in regulating the use of the Internet (both in problematic and functional way), particularly during adolescence. This phase of life is characterized by the transition between childhood and adulthood and it is distinguished by biological and psychological changes <sup>[4]</sup>. For adolescents building social bonds with peers <sup>[17]</sup> both in Online and Offline life is fundamental to increase Social-Support and consequently self-esteem <sup>[1,33,41]</sup>. In this regard, Żywica and Danowski <sup>[64]</sup> have found that persons characterized by greater extroversion and higher self-esteem perceive themselves as more popular both in Online and Offline life (hypothesis of social enhancement). On the other hand, individuals with less self-esteem are perceived as less popular both on the Web and in Offline life (hypothesis of social compensation). Persons who do not receive adequate Social-Support in the Offline life, they tend to create a parallel life to activate

contacts and build relationships Online to compensate for this shortage.

Adolescents present their increased Online involvement as normative and peer-driven [12]. Different studies have linked the Internet use (hereafter use) to group norms [3,21] and to characteristic adolescent requirements like identity exploration [23], self-affirmation [21,31], and belonging [6]. Literature underlining the positive impact of high Online involvement showed that frequent Online interactions is positively related with greater familiarity when involving self-disclosure [57], and predicts future friendship quality [11,58]. In this regard, a growing stream of researchers have investigated the relationship between Internet usage and Social-Support during adolescence [54]. Particularly, some scholars tried to verify whether making use of the Web affects how much supported adolescents' feel and habits [23,54]. Adolescents have an active Online presence by engaging more in creative and sharing activities [32]. For example, social networking is a key Online activity, with 92% of adolescents 14-17 years reporting being a member of at least one SNS, and 40% spending two or more hours daily on their preferred SNS [53]. Moreover, Eastin and LaRose [13] found that the size of one's Online Social Network has a positive relation with the perception of Social-Support. A recent study of Rowsell *et al.* [42] investigated the perceived support Internet users feel from close and no close ties, respectively. Their findings showed that both type of Online social connections provides equitable support. Taken together these studies give a positive answer: the usage of Internet does have the potential of enhancing perceived Social-Support.

### 3. Research Hypotheses

The theoretical perspective of this research assumes that the Internet is neither good nor bad, but that it can become either a problematic device or a functional tool during adolescence, depending on how it is used and the reasons behind such use, like any other cultural artifact created by humans [35,36]. Thus, drawing on the previous literature description, the current study considering social-support (both Online and Offline) as main factor that could lead to either a problematic or a functional use of the Internet during adolescence, including gender differences. Particularly, it was hypothesizing that (see figure 1):

H1. Online Social-Support positively predicts PIU only when Offline Social-Support is low.

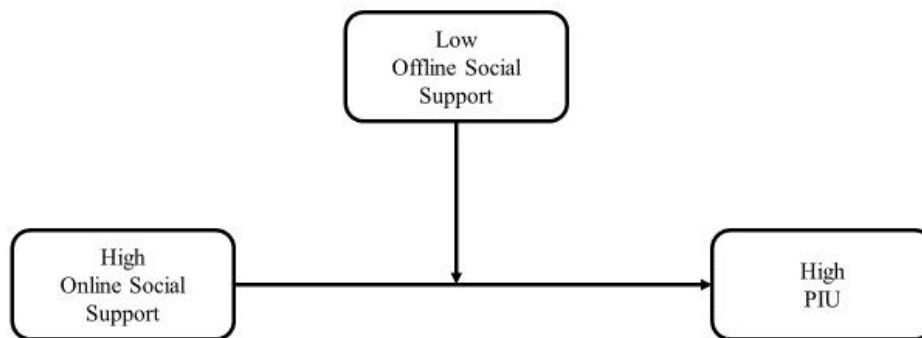
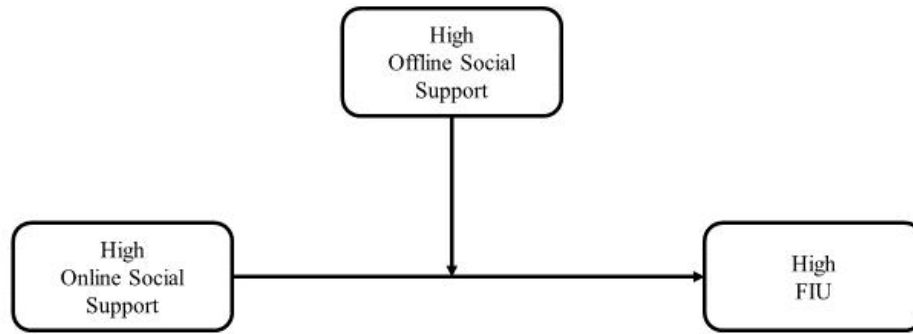


Figure 1. Graphical representation of H1.

It is expected that the outcomes of Online Social-Support on the recipients are either positive or negative depending on how strong his/her perception of support in the offline life is. This is the “social compensation hypothesis”, as already defined by Zywicki and Danowski [64], i.e. if seeking Online Social-Support is meant to compensate for weak offline social networks, the user will tend to develop a Problematic Internet Use.

By contrast, those who are strong in their perception of Offline Social-Support are hypothesized to have benefit from receiving Online Social-Support (Figure 2).

H2. Online Social-Support positively predicts FIU only when Offline Social-Support is high.



**Figure 2.** Graphical representation of H2.

Since the Social-Support represent the whole set of information that comes to a person through social interactions, and it transmits to the individual the feeling of being loved, esteemed, capable and part of a network characterized by reciprocal obligations <sup>[9]</sup>. It is expected that if an individual has strong social bonds in the Offline life, these bonds are for the most part the same (friends and acquaintances) that a person re-create in the Online life <sup>[50]</sup>, and this could predict a perception of Functional Internet Use.

### 3.1 Gender Differences

Based on the previous literature assumptions, it was hypothesized that males have high levels of PIU and high Online Social-Support compared to females. While, it was expected that females have high levels of FIU and high Offline Social-Support than males. Moreover, there were consider as part of social-support both Online and Offline the total number of friends and acquaintances that an adolescent has. Particularly, it was expected that males have high number of friends and acquaintances compared to females.

## 4. Materials and Method

### 4.1 Data collection

The purpose of this research is to investigate the impact of the role of Online and Offline social-support in the Internet use in adolescents' lives. The study investigates whether, when and under which conditions, Offline and Online Social-Support lead to a problematic or a functional use of the Internet. To achieve this aim, a cross-sectional study was proposed <sup>[50]</sup> based on the compilation of an anonymous Online questionnaire after the approval of the local University bioethics committee. A website was constructed for the research where anyone wishing to fill in the questionnaire was able to read the informed consent and then proceed to completing the questionnaire.

The questionnaire's distribution was based on the penetration of SNSs' monthly use in Italy . First, some Italian secondary schools have been directly contacted to participate to the research, and after the consent of the School Principal, the anonymous link has been sent to all the school students and also to their parents for their consent to the participation and to the data treatment. Moreover, campaigns were broadcast on SNSs targeting: gender and using Web pages created specifically for this research on the main SNSs: Facebook, YouTube, Google+. These pages eased the data collection of homogeneous samples, while those with other purposes (such as sharing photos, like Instagram or Pinterest) were excluded. Finally, to increase the sample, the questionnaire was also distributed in three high schools in Italy.

### 4.2 Sample description

Adolescence is the transition between childhood and adulthood and it is characterized by biological and psychological changes <sup>[4]</sup>. It is important to underline that the duration of adolescence, its demands and pressures vary substantially between cultures <sup>[4]</sup>. Most tribal and village societies have only a brief intervening phase between childhood and the full assumption of an adult role <sup>[62]</sup>. On the other hand, young people in industrialized countries face a

prolonged dependence on their parents and the postponement of sexual gratification while they prepare for a productive working life. As a result, adolescence is greatly extended. In this regard, according to [4], it is possible to divide this phase in three different stages:

Early Adolescence (11-12 to 14 years): this is a period of rapid pubertal change;

Middle Adolescence (14 to 16 years): pubertal changes are now almost complete;

Late Adolescence (16 to 18 years): the young person achieves their full adult appearance and begins to take on more adult roles.

Considering this perspective and previous considerations, despite this division, this study examines a unique group of adolescents from 13 -14 to 17 years of age, placing more importance on social and psychological changes for two reasons. Firstly, in Italy at 13-14 years, adolescents start high school and begin to have close relationships with their peer groups. These relationships greatly influence the dynamics governing the use of the Internet and its applications (both in problematic and functional ways) between males and females' adolescents. Secondly, 17 years old is the year before adolescents become legal adults according to Italian law and, especially within the peer group, adolescents consider reaching 18 years as a kind of rite of passage and a milestone towards adulthood. Following these assumptions and considering only the respondents who fully answered the questionnaire, the sample consist of 574 adolescents (Mean= 15.74, SD= 1.15), of which 303 are females (52.8%) and 271 are males (47.2%).

### 4.3 Measures

This study aims to investigate the relationship between constructs referred to offline life and some dimensions related to adolescents' Online activity (Table 1).

Offline life	Online life
Offline Social-Support	Online Social-Support
Number of Friends (people with whom you have a relationship that goes beyond mere knowledge)	Number of Friends (people with whom you have a relationship that goes beyond mere knowledge)
Number of Acquaintances (people you know but do not meet regularly)	Number of Acquaintances (people you know but do not meet regularly)
	Functional Internet Use
	Problematic Internet Use

Table 1. Dimensions considered for Offline life and Online life.

The analyses are run considering gender as control variables, as suggested by previous studies inquiring Online activity [27,38,55]. Offline and Online Social-Support have been assessed by translating in Italian the Wang and Wang's Offline and Online Social-Support Scales [61]. For this purpose, a forward-backward translation procedure has been adopted. The two scales consist of 11 items addressing the question "How often is each of the following kinds of support available to you if you need it?" (either offline or in Internet land), the answer is given by selecting one among four points. Although Wang and Wang [61] treated the scales as unidimensional, to create the instrument they adopted Leung and Lee's inventory (2005), which distinguishes three factors Emotional and Informational (EI), Positive Social Interaction (PSI), Affectionate (AF), both for Online and Offline life. Both the scales and all their factors are reliable for the adolescents' sample (Table 2).

PIU was assessed by the Generalized Problematic Internet Use Scale 2 (GPIU2) [7], adapted in Italian by Fioravanti, Primi and Casale [14] which consists of 15 items measured on an 8-point Likert scale (1= definitely disagree and 8= definitely agree) was used, answering the question: "Indicate your agreement-disagreement with the following statements".

Items	a
Offline Social-Support	.92
Emotional and Informational	.90
Someone whose advice you really want	
Someone who can give you good advice about a crisis	
Someone who can give you information to help you understand a situation	
Someone you can turn to for suggestions about how to deal with a personal problem	
Positive Social Interaction	.90
Someone you can get together with for relaxation	
Someone you can do something enjoyable with	
Someone you can do things with to help you get your mind off things	
Affectionate	.89
Someone who shows you love and affection	
Someone who wants you and makes you feel wanted	
Someone who comforts sincerely	
Someone you can count on to listen to you when you need to talk	
Online Social-Support	.96
Emotional and Informational	.94
Someone whose advice you really want	
Someone who can give you good advice about a crisis	
Someone who can give you information to help you understand a situation	
Someone you can turn to for suggestions about how to deal with a personal problem	
Positive Social Interaction	.93
Someone you can get together with for relaxation	
Someone you can do something enjoyable with	
Someone you can do things with to help you get your mind off things	
Affectionate	.92
Someone who shows you love and affection	
Someone who wants you and makes you feel wanted	
Someone who comforts sincerely	
Someone you can count on to listen to you when you need to talk	

Table 2. Cronbach's Alfa of Offline and Online Social-Support.

A brief scale, named Web Useful, specifically created for this study measured FIU. The scale measures the perception that the use of the Internet helps in better carrying on some activities. The scale is composed of 4 items: (1) “being connected increases my ability to reach certain goals”, (2) “being connected improves my productivity”, (3) “being connected is useful for carrying out my activities”, (4) “being connected improves my performances”. It is measured on a 7-point Likert scale from 1= strongly disagree to 7= strongly agree, answering the question: “Indicate your agreement-disagreement with the following statements”.

To estimate the number of friends it was asked to answer to a specific question: “if you had to quantify your friends (people with whom you have a relationship that goes beyond mere knowledge), how many friends have you?”. The same question was made also for the number of acquaintances: “if you had to quantify your acquaintances (people you know but do not meet regularly), how many acquaintances have you?”.

## 5. Results

As shown in Table 3 a Spearman's rank-order correlation to evaluate the relationships between variables, and scales' reliability of PIU (.92) and FIU (.90) were calculated.

Measure	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Offline EI	3.71	0.96	1									
2. Offline PSI	4.00	0.89	0.53**	1								
3. Offline AF	3.87	1.00	0.67**	0.62**	1							
4. Online EI	3.32	1.10	0.36**	0.29**	0.32**	1						
5. Online PSI	3.57	1.07	0.22**	0.31**	0.22**	0.71**	1					
6. Online AF	3.28	1.14	0.35**	0.34**	0.45**	0.79**	0.72**	1				
7. Functional Internet Use	14.2	6.18	0.02	0.01	0.03	0.22**	0.27**	0.21**	1			
8. Problematic Internet Use	3.19	1.43	-0.12**	-0.11*	-0.16**	0.19**	0.22**	0.16**	0.25**	1		
9. Number of Friends (people with whom you have a relationship that goes beyond mere knowledge)	3.03	1.40	0.11**	0.19*	0.14**	0.14**	0.11**	0.15**	0.21**	0.02	1	
10. Number of Acquaintances (people you know but do not meet regularly)	4.14	1.38	0.05	0.16**	0.14**	0.10*	0.05	0.10*	0.15**	0.05	0.42**	1

Note \*p < .05 \*\*p < .01.

Table 3. Correlations of the measured dimensions.

All factors of Offline Social-Support and Online Social-Support are each other correlated. Further, while factors characterizing Offline Social-Support are negatively related to PIU, those characterizing Online Social-Support correlated positively with it. Regarding FIU, it is not correlated with Offline Social-Support factors, while it is positive related with those of Online Social-Support. Furthermore, the total number of friends is positive correlated with all Online Social-Support and Offline Social-Support's factors, FIU and PIU. Finally, the number of acquaintances is positively correlated with Offline Social-Support PSI and AF, Online Social-Support EI and AF, FIU and the number of friends; while is not correlated with Offline Social-Support EI.

## 5.1 Hypotheses Testing

Because of the correlation among the predictors, H1 is tested using hierarchical multiple regression having PIU as dependent variable (Table 4).

H1 is partially confirmed: Online Social-Support doesn't predict PIU, while Offline Social-Support, in its Affectionate dimension, negatively affects it.

H2 is tested using hierarchical multiple regression having FIU as dependent variable (Table 5).

	Model 1		Model 2	
	b	t	b	t
Gender	.12*	2.85	.06	1.40
Offline EI			-.05	-.90
Offline PSI			-.06	-1.08
Offline AF			-.19*	-2.97

Online EI		.11	1.55
Online PSI		.09	1.33
Online AF		.11	1.43
Number of Friends (people with whom you have a relationship that goes beyond mere knowledge)		-.06	-1.26
Number of Acquaintances (people you know but do not meet regularly)		.05	1.04
R <sup>2</sup>	.01	.16	
F for change in R <sup>2</sup>	8.09	10.2	

Note \*p < .05 \*\*p < .01

Table 4. Hierarchical multiple regression, dependent variable: Problematic Internet Use.

	model 1		model 2	
	b	t	b	t
Gender	.18**	4.20	.11*	2.64
Offline EI			-.01	-.09
Offline PSI			-.07	-1.36
Offline AF			.07	1.12
Online EI			.06	.80
Online PSI			.21**	3.32
Online AF			-.04	-.57
Number of Friends (people with whom you have a relationship that goes beyond mere knowledge)			.14*	2.94
Number of Acquaintances (people you know but do not meet regularly)			.07	1.64
R <sup>2</sup>	.03		.17	
F for change in R <sup>2</sup>	17.7		10.1	

Note \*p < .05 \*\*p < .01

Table 5. Hierarchical multiple regression, dependent variable: Functional Internet Use

Also, in this case H2 is partially confirmed: Online Social-Support predicts FIU and the dimension that impact on the dependent variable is Online Positive Social Interaction, while Offline Social-Support doesn't affect it. Moreover, the number of friends is a good predictor of FIU as well as the gender.

Results show that males have higher levels of PIU and FIU, higher total number of friends and acquaintances than females. The latter have the highest scores in all dimensions of Offline Social-Support and Online Social-Support, except for the Online PSI, that is not significant.

Gender differences were tested using ANOVA test (Table 6).



Measures	Mean	SD	F
Offline EI			25.4
Female	3.90**	0.94	
Male	3.51**	0.94	
Offline PSI			11.08
Female	4.11*	0.84	
Male	3.87*	0.92	
Offline AF			29.3
Female	4.07**	0.93	
Male	3.63**	1.02	
Online EI			6.03
Female	3.43*	1.12	
Male	3.20*	1.06	
Online PSI			0.03
Female	3.58	1.13	
Male	3.56	1.01	
Online AF			4.74
Female	3.38**	1.19	
Male	3.17**	1.07	
Functional Internet Use			19.2
Female	13.1**	5.92	
Male	15.4**	6.25	
Problematic Internet Use			7.99
Female	3.02*	1.36	
Male	3.36*	1.48	
Number of Friends (people with whom you have a relationship that goes beyond mere knowledge)			45.6
Female	2.67**	1.25	
Male	3.44**	1.46	
Number of Acquaintances (people you know but do not meet regularly)			5.85
Female	4.01*	1.33	
Male	4.29*	1.42	

Note \*p < .05 \*\*p < .01

Table 6. ANOVA test of measured dimensions between females and males.

## 6. Discussion

The goal of this research goes beyond the dualism which considers the Internet either good or bad since existing literature presents an excessive imbalance towards the problematic/addiction side. Thus, the research tries to answer the question: “when Social-Support lead to a problematic or functional Internet use for adolescents?”. Following the hypotheses made, the results verified these aspects in a wide sample of Italian adolescents’ females and males. The correlations analysis and the ANOVA allowed us to gain a deeper understanding of the results obtained.

Considering the first hypothesis (H1), the results show that Offline Social-Support (Affectionate, i.e. the dimension most related to “feeling loved”) negatively affects PIU, while Online Social-Support doesn’t predict it. Thus, starting

from the compensation theory [35,64], it's possible to say that having the feeling to be loved in the Offline life preserve adolescents from the risk of a problematic use of the Internet, probably connected to the search of this feeling in Online contexts. Those who seek in Internet the affection that they lack in the Offline life are those most at risk of developing a problematic use of the Internet. Furthermore, significant gender differences occur both in PIU scores and in the Offline Social-Support affectionate: males present higher levels of PIU compared to females, while females have higher scores in Offline Social-Support affectionate. This means that since males have lower Offline social bonds that show them affection, feel wanted or comforts, they tend to spend so much time on the Web, not necessary to search Online social interaction as resulted in the study of Griffiths (2015), but simply to carry out various activities that can compensate for this lack of social ties in the Offline life.

Turning on H2, Online Social-Support (Positive Social Interaction, i.e. the factor related to the enjoyment) predicts FIU, while Offline Social-Support doesn't affect it. Those who have Online positive social relations that make them feel relaxation, allowing them to get enjoy and do things together, and finding a help in case of need, they perceive to use the Internet in a functional way. As in the previous hypothesis also in this circumstance males have a higher score in the dependent variable than females. Spending a lot of time Online makes them feel that they are using the Internet more effectively. This does not mean that males use it to perform activities better than females and that are functional to a specific goal (e.g. doing homework). It is simply their perception that using the Internet is useful for carrying out their activities or improves their performances. Despite gender is a significant predictor of FIU, there are not gender differences in the Online Social-Support positive social interactions. This means that both females and males have the same perception of the positive use of the Internet which is not related to the social relations that adolescents have in the Offline life. They should not compensate for the deficiencies in the Offline social ties, but just search for Online enjoyment. Enjoyment that, especially for males, derives from the number of friends that are part of their Online social ties.

## 7. Conclusion

This research aimed to address a gap in literature by providing an understanding of relationships between the Online and Offline life, trying to balance the excessive disparity in the literature on the dysfunctional use of the Internet. In this regard, the main goal was to focus attention on the role of Offline and Online Social-Support to understand which of their factors determine PIU, but also on those factors that allow adolescents to integrate it into FIU to achieve the goals that characterize their daily activities. Findings highlight how strong affective relationship in the Offline life are important to prevent a problematic use of the Internet (particularly for males). Having a high positive social interaction in the Online life promote the perception both in females and males of using the Internet in a functional way, particularly if the interactions are with friends. These results could infer some practical implication. The possibility given by new technologies (smartphones, tablets, etc.) to access the Internet wherever, whenever, have led to an increasing concern about the effects of such massive usage. These findings show that the Web is not addictive or risky per-se. By contrast, its effects are strongly related to the adolescents' offline social bonds. Interventions aimed to reduce dysfunctional outcomes of Internet should work on fostering aspects of the offline life social ties during adolescents rather than focus on the usage of devices to access the Web. Despite these assumptions are important to consider the Internet as a huge thing, it has entered the lives of most people pervasively and in many different aspects and It changes extremely rapidly. In these recent years Internet has passed from Web 1.0 to 2.0 to 3.0 and it is now in its 4.0 phase [8] which means that the applications on the Web have the goal of connecting adolescents automatically, based on the activities they are doing. The Web 4.0 would therefore help adolescents to collaborate and reach shared goals by pooling their resources and skills (e.g. for school activities). Therefore, it would be a Web which is fully integrated with physical reality, at the service of relationships to multiply and enhance them.

## 8. Limitations and Future Directions

This research aimed to address a gap in literature by providing an understanding of relationships between the

Online and Offline life with a special focus on social-support. This perspective, which was born in the wider field of positive psychology [15,47,49], could have significant implications for the improving the effectiveness of adolescent's functions in everyday contexts, thanks to the attention placed on the awareness of the problematic and functional aspects of the Internet. Nonetheless, this study presents three kinds of limitation: (1) sample limitations, (2) structural limitations and (3) methodological limitations. The sample limitations are a direct consequence of the data collection method. Although the number of participants it is not representative of the large and diverse population to which it refers. Future research could test the role of social-support Online and Offline in different cultural and social context during adolescence.

The structural limitations are due to the nature of the phenomenon studied. The Internet is a huge thing; it has entered the lives of most people pervasively and in many different aspects. In the future, it may be possible to ask for better collaboration between different disciplines which complement each other (e.g. software engineers, Web sociologists, cyber-psychologists, educational psychologists, etc.) in order to study the new changes that will occur in the Web before they become obsolete, with particular focus on the adolescents' social interaction with peers by using digital devices and their applications.

The final limitation concerns the research method. A cross-sectional study was proposed based on the compilation of an anonymous self-report Web questionnaire. However, data collection based on a longitudinal study would have provided more complete data for understanding how and under which conditions the Online and Offline social-support could lead to a problematic or a functional Internet use. However, the sudden changes in the Web, its applications (e.g. Instagram, Facebook, Twitter, LinkedIn, etc.) and the devices used (e.g. Smartphone, Tablet) to connect to the Internet, would not have allowed continuity and availability of data collection in a potential longitudinal study. Indeed, if a longitudinal study were hypothesized (e.g. over a period of 5 years) with a group of adolescents, in the meantime their habits regarding the use of the Web and its applications may change and there would consequently be difficulties in measuring congruent changes based on the factors considered at the beginning of the study. Furthermore, it is important to underline that a self-report questionnaire has been used in this research and this type of questionnaire can easily involve the phenomenon of answer falsification by the participants.

## 9. Conflict of Interest

No conflict of interest was reported by all authors.

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