

## **Social relationships in an electronic environment. Cultural factors and variables**

Carmine CLEMENTE

**Abstract:** *Within certain cultural and social limits, some behaviours linked to the use of new technology, gaming, physical exercise or work are useful practices with a positive social value for both individuals and society. As these practices are commonly and socially accepted, the trend is to underestimate the risks and not to perceive them as deviances even when they start to be compulsive. This paper focuses on the concept of new non-substance addictions and on how some social factors influence, on the one side, this new interaction between man and technology and, on the other side, social relationships in the electronic environment.*

**Keywords:** *behaviors, electronic environment, man, non-substances addictions, technology.*

### **Introduction**

Within certain cultural and social limits, some behaviours linked to the use of new technology, gaming, physical exercise or work are useful practices with a positive social value for both individuals and society. As these practices are commonly and socially accepted, the trend is to underestimate the risks and not to perceive them as deviances even when they start to be compulsive. These can be defined as behavioural addictions or non-substance addictions which derive from some behaviors or activities in daily life.

The main feature of these addictions is the absence of toxic

substances, but with the same effects of substance addictions, such as the prioritization of the activity or behavior with a negative impact on social life; mood disorders; higher levels of tolerance demanding to increase the number of activities necessary to gain the same level of satisfaction; abstinence symptoms; tendency to relapse when trying to give up.

That is precisely the problem arising from those social practices which first take on a negative value and in a second moment become a real disorder when the typical signs of addiction start to appear. In the following chapters, after discussing the nature of new addictions, we will

focus on the new ways of interacting on the web with regard to gender and socio-cultural variables.

### **Behavioural addictions**

Addictions have extended considerably to new activities or substances that could be defined as dematerialized or virtual. These activities are very common in the daily life of a large number of people. In other words, these addictions derive from legal activities<sup>1</sup> or from behaviours<sup>2</sup>. The main feature is that they do not derive from abusing a chemical substance, but from a particular activity or behaviour. This is what is now called “new addiction”<sup>3</sup>.

The concepts of dependence and addiction are different and distinct. The former points at a physical or chemical dependence, whereas the latter indicates any aspect of life which can be considered as addictive<sup>4</sup>. According to Shaffer<sup>5</sup>, an addiction can develop without dependence when it is linked to social practices and relations with certain objects which do not act chemically on individuals. Similarly, dependence can develop without addiction, as in the case of tobacco or legal drugs, when it does not entail antisocial behaviours or illegal actions.

Francisco Alonso-Fernandez<sup>6</sup> categorizes addictions in:

1. Social or legal addictions;
2. Antisocial or illegal addictions.

Social or legal addictions are engendered by legal drugs such as

tobacco, alcohol, drugs or by activities socially accepted such as eating, working, shopping, playing, watching television. Antisocial or illegal addictions are triggered by drugs such as cocaine or opium or by illegal activities such as stealing and raping. According to the author, these new non-substance addictions are eased by technology innovation and a new way of living permeated by stress, boredom and void where the immediate gratification is constantly sought through appropriate instruments.

Pani and Biolcati define the addiction as a general condition of psychological dependence which urges the individual to seek constantly the object or activity without which existence would seem to lose importance<sup>7</sup>. This psychological aspect is fundamental to distinguish the two concepts; the addiction is a form of dependence exercised in the interaction between subject, object and context<sup>8</sup>. Indeed, it is precisely the interaction between these three elements that causes dependence and not just the kind of drug or activity repeated compulsively. For example, it would be simplistic to state that games and technology create dependence, but at the same time it would be short-sighted to maintain that behaviours and the interaction between individuals and games cannot be defined as addictive.

Among new addictions, the most important ones are related to:

1. **Food.** Food addiction generates a vicious circle of craving, pleasure

and abstinence. This interaction with food can translate into an excessive attention to regimes stemming from the fear to put on weight or not to feel fit. Poor outcomes in a diet affect the nervous system and have a negative impact on social and private relations with a general feeling of dissatisfaction which fuels the problem itself;

2. **Love or sex.** Love addiction is characterized by the need to establish an emotional bond based on one's dependence on the other partner who protects and takes care of him or her. Sex addiction triggers an uncontrolled need to have sexual encounters with different people without being emotionally involved;

3. **Shopping.** Compulsive shopping is included in the DSM-IV and has been firstly described by Kraepelin in 1883 as a pathological impulse to buy, also known as *oniomania*<sup>9</sup>. Installments, an increase in consumption, the enormous variety of choice and a society which is more and more based upon appearance have had an impact on the rise of this kind of addiction. This addiction translates into an uncontrolled need to buy and an increasing tension alleviated only after purchasing something in order to get pleasure and gratification. Some of the side effects include higher stress levels, worse personal and social relationships, working life, married and family life, severe economic problems<sup>10</sup>.

4. **Work.** Work addiction or workaholism is the obsessive or

compulsive behaviour linked to self-imposed requests. This addiction is characterized by the individual's inability to manage working attitudes ending up in absorbing all other life activities.

Moreover, among new addictions, we can add addictions related to extreme risk, sports, mobile phones, videogames and television.

A particular attention should be attached to pathological gaming (GAP) which constitutes the first case of non-substance addiction in the DSM-IV<sup>11</sup>. The Internet addiction deserves further discussion and the following paragraphs will be dedicated to it.

### **Internet addiction**

In Italy, the Internet addiction disorder (IAD) started to draw researchers' attention ten years ago. However, it should be noted that the interaction between man and computers had already been studied in the late 80s<sup>12</sup> when the defending lawyers of two American hackers obtained a reduction in punishment by demonstrating that they were affected by this disorder. They compared the IAD to substance addictions by listing some shared elements. The attempt to crack a password seemed to generate a conditioning similar to the one engendered by chemical substances.

Psychologists have labeled this phenomenon as *disorder*, the term being used for the first time by Ivan Goldberg in 1996<sup>13</sup> to refer to

situations in which the dependence compromises individual's life under one or more aspects regarding relations, family, work and finance as well as psychological and physiological aspects.

Griffiths<sup>14</sup> speaks more generally of technological addiction to highlight the interaction between man and machine. This interaction can be active, such as in videogames, or passive, such as with television. Technological addictions share at least six features with other addictive pathologies: predominance of the object over other thoughts and people; mood alterations; higher tolerance threshold; abstinence; relapses; interpersonal and intrapsychic conflicts.

Instead, according to Young<sup>15</sup>, the Internet addiction is a disorder in controlling impulses generated by a non-toxic substance with negative side effects in daily life. In 1998, the psychologist presents the first experimental data on this addiction collected through an on-line questionnaire administered to the users of some websites and self-administered; questions have been drawn following the criteria established for the DSM-IV as for substance dependence and pathological gaming. 80% of the 500 interviewed were found to be addicted. They showed the same level of tolerance and abstinence and Young defined it a form of drug addiction just like other pathological behaviours. Young defined three stages in the development of this addiction: the first stage is character-

ized by curiosity; the second stage is characterized by a process of replacing other activities in order to immerse fully in the new dimension; the third stage is characterized by the attempt to seek refuge in the virtual world to escape from stress, unhappiness and discomfort.

Davis<sup>16</sup> prefers to speak about *Pathological Internet Use (PIU)* to describe the excessive use of certain activities and functions of the web rather than using the term addiction.

Cantelmi and Talli<sup>17</sup> have proposed a new explicative model of the Internet Addiction Disorder on the mechanism triggering the dependence on the web. The individual starts with paying greater and greater attention to his or her mailbox and forums; then, he or she enters a stage defined as *toxicophiliac* when the time spent on the web is longer than the time spent in real life with a general sense of discomfort during offline moments. In the end, when there are also psychopathological symptoms, he or she enters a stage defined as *toxicomaniac* with prolonged online moments that compromise daily life.

Nardone and Cagnoni<sup>18</sup> are more cautious in defining diagnostically the Internet addiction as it would imply the three mechanisms of craving, tolerance and abstinence. According to them, it is not the web abstinence to urge a person to use the Internet, but the search for pleasure and gratification. Understandably, the definition is still blurred. Some academics put it among the non-

classified impulse control disorders whereas others prefer to describe it as a new addiction given the presence of tolerance, abstinence, craving just like as in the case of drugs, alcohol or pathological gaming. At the same time, the number of people on the web, and more specifically the time spent on it, has considerably increased.

Kuss and Griffiths<sup>19</sup> maintain that the addiction to social networks stands as a social theme concerning physical and psychic wellbeing, thus considering it as a clinical disorder to be treated with a neuropsychiatric approach and pharmacological treatments.

All aspects and features – the positive ones too – of social networks left aside, individuals are changing their way of life – in job, consumption, personal skills, family and married life - and spending more and more time on the web to the detriment of real life and daily activities such as meeting people, going out or playing. Over a billion people across the world, mainly aged from 18 to 34 years, surf the Net. In some cases, they present mood alterations, higher tolerance and conflictual attitudes that are so considerable that their life is severely affected<sup>20, 21</sup>. The age threshold of new web users lowers to 11 years old<sup>22</sup> and this exacerbates the question of protecting children who are the most vulnerable subjects in society.

In China, the number of Internauts is the highest in the world with some

650 million users and 10% of under-18 is web-addicted<sup>23</sup>. Sometimes the addiction turns into tragedy. It is not the first time that the news announces that a teenager has died after spending days and days at the computer without eating and sleeping. The number of similar cases is so high that many Chinese analysts have coined the new term of *electronic heroin* and many are suggesting treating these effects as the Third Opium War. The Chinese psychiatrist Tao – who has opened a treatment center for Internet addiction – estimates that in China there are some 24 million people addicted to the Internet and that this particular kind of addiction damages severely the brain in a way similar to heroin. What is more, it can destroy social relationships at any level and deteriorates progressively the body without the individual even noticing it. Patients treated in Tao's center have all back-related and sight-related problems. Their cerebral activity registers a decrease by 8% and psychological disorders are worrying.

Tao specialised in 1991 in treating addictions and would like to export his model to the rest of the world. According to him, 90% of patients treated in his center show a deep depression, 58% show aggressive behaviours towards parents, most of them are not able to have friendships out of the cyberspace and have sexual deviances deriving from an excessive use of pornography.

Furthermore, many of them risk turning to illegal activities. Based on the official statistics, 67% of juvenile crimes are perpetrated by Internet-addicted people who idolise the mafia and have difficulties to distinguish reality from fiction. Li Huaibing is 17 years old and admits to be addicted. He was expected to complete his A levels, the Gaokao, but he did not achieve this result because of his addiction. He gave up school because he had no friends and was in conflict with his professors. He did nothing but surfing the Internet and the Internet let him escape from himself.

China is the first country affected deeply by this phenomenon and, given its population, it should be rightly considered as a social concern. Facebook is undoubtedly the most used site with its 1,4 billion people using it monthly, followed by QZone for Chinese users with its 629 million users. Instant messaging is also praised for. QQ International and WeChat have respectively around 829 million and 468 million users every month.

In Asia, Facebook users passed from 39 million to 449 million users within a few months, from August 2014 to December 2014<sup>24</sup>, whereas in Italy there are 25 million users, a third of which are under 24. An interesting study on Facebook addiction has been carried out in India on a group of university students (average age 19; 77% boys, 23% girls)<sup>25</sup>. Results show that the population with a high level of

addiction is greater than the one with a low level of addiction. 4% of them show an alarming level of addiction. Other studies<sup>26</sup> on the relation between the use of social networking and academic performances show that students with high levels of addiction obtain worse results and lower participation in real social life<sup>27</sup>.

Some figures on university students' levels of addiction to social networks: 0,8% in Italy; 2,8% in Iran; 5,6% in China; 9,8% in the United States; 15,1% in Taiwan; 16,2% in Poland; 3,2% in the United Kingdom<sup>28</sup>.

### **The interaction through the Internet: addiction or a new form of social organization?**

In psychological terms, the use of the Internet is nowadays a new way for creating and establishing immediate social relations<sup>29</sup>. The web plays an essential role in meeting people, mediating, creating and re-creating social meanings<sup>30</sup>. Electronic interaction and related addictions are characterized by new features concerning the interaction between man and technology. These features are considerable in a society where communication technology has cancelled the ideas of time and space and has changed relation models between individuals.

Some studies have dealt with this phenomenon and showed a strong bond between social factors, cultural elements (gender) and web use. In

the late 90s, some studies have produced interesting results showing that some social factors contribute to the Internet Addiction Disorder<sup>31, 32</sup>. For example, among these factors, it should be taken into account the individual's ability to take on different roles, the anonymous nature of communication and the desire to develop important interpersonal relationships. Side effects concern performances at work and school and sleep deprivation which are the same effects produced by alcohol and drugs.

In other studies, researchers have tried to verify the following hypotheses:

- whether and how the Internet Addiction Disorder is influenced by social interactions;

- whether and how the Internet Addiction Disorder is related to social factors;

For example, some authors maintain that in the before-Facebook era in the 90<sup>s</sup>, it is the social interaction organization itself in chat rooms<sup>33</sup> to lay the foundations for addictions. Bellamy and Hanewicz<sup>34</sup> underline how chat rooms have shifted social interaction to electronic communication. Electronic communication is characterized by the fact that relations can be altruist and friendly as well, but there is a greater simplicity in managing the intensity of the relationship itself<sup>35</sup>. In this view, communication on the Internet presents some interesting features:

1. Individuals have easy and flexible access to people all day round;

2. The Internet differentiates social networks, thus making them more captivating<sup>36</sup> and eliminates the restraints of space and time;

3. Individuals can better control their representation of self<sup>37</sup> and some barriers such as anonymity in gender and age – which are impossible in face-to-face communication because of physical presence and space-time simultaneity – can be used<sup>38</sup>.

An interesting and original research has been conducted on significant correlations between Internet predisposition and some cultural and gender variables which influence the cultural definition that individuals give to the electronic environment with a consequent different interpretation of the Internet Addiction Disorder<sup>39</sup>.

The results show that, in comparison to face-to-face interactions, chatrooms allow individuals to create relationships in which levels of acceptance, empathy and involvement are higher. According to the interviewed, this element is more important than the quantity of time spent on chatrooms that does not influence negatively their social and private life. The quantity of time spent on the Internet in chatrooms – *nethour* or *chathour* – is statistically significant, but it does not explain the variables of self-esteem, trust and self-control. In fact, when comparing the Internet Addiction to substance

addictions, it should be linked to these variables quantitatively and negatively.

The worsening of the addiction is supposed to engender a decrease in self-esteem; instead, none of the data collected on this addiction are significantly linked to these social variables which had been replaced in the research by the parameter of Locus of Control.

Ultimately, what is named Internet Addiction could prove not to be an addiction at all. As for the gender variable, it could be seen as the different cultural orientations which influence the way men and women build up their representation of self, interpret culturally their social identity and organize their private and social life<sup>40</sup>. The term *gender* refers to what is historically and socially recognized when being born male or female, especially for women<sup>41</sup>.

Electronic communication – considered as a new form of interpersonal communication – is a new field where individuals decide their role and their representation of self in terms of sociability. Bellamy and Hanewicz's study<sup>42</sup> shows interesting results. Women consider the web as a good way of creating social

relationships similar to face-to-face interactions; men tend to prefer it because of its simplicity and immediacy. In this sense, the quantity of time spent on the Internet is correlated to Internet addiction negatively for women and positively for men. Moreover, women spend more time on electronic communication than men in terms of *chathour* and *nethour*, are more attracted for its sociability and participate less in real group activities.

To conclude, the debate on whether and how we should talk about Internet Addiction and which psychological, sociological, clinical or academic approaches should be recommended should be shifted to the acknowledgement that it is a global trend concerning a large part of the population. The Internet era has already modified many social, economic and political aspects with concrete and direct effects on individuals' daily life. If we consider the use of the Internet and electronic communication only in terms of quantity or as a dichotomy, a risk appears, *i.e.* considering as a deviance a cross-cutting process which involves culturally the largest part of world population.

## Notes

<sup>1</sup> Mark Griffiths, "Technological Addictions", in *Clinical Psychology Forum*, nr. 76, 1995, pp. 14-19.

<sup>2</sup> Paolo Rigliano, *In-Dipendenze*, Gruppo Abele, Torino, 1998.

<sup>3</sup> Grazia Caforio, *New Addiction*, 1999, <http://www.psichiatria.it/emepug> (accessed on 25 February 2015).

<sup>4</sup> James Maddux, David Desmond, "Addiction or dependence?", in *Addiction*, vol. 95, nr. 5, 2000, pp. 661-665.

- <sup>5</sup> Howard Shaffer, "Understanding the means and objects of addiction: technology, the Internet, and gambling", *Journal of Gambling Studies*, Vol. 12, No. 4, 1996, pp. 461-469.
- <sup>6</sup> Francisco Alonso Fernández, "La dipendenza dal gioco", *Le altre droghe*, EUR, Roma, 1999.
- <sup>7</sup> Roberto Pani, Roberta Biolcati, *Le dipendenze senza droga*, UTET, Torino, 2006, p. 4.
- <sup>8</sup> Paolo Rigliano, *op. cit.*, p. 2; Howard Shaffer, *op. cit.*, p. 2.
- <sup>9</sup> Monica Pascoli, "Shopping addiction e questioni di genere", in *Sociologia della salute e web society*, Costantino Cipolla, Antonio Maturo (eds), FrancoAngeli, Milano, 2014.
- <sup>10</sup> Steve Sussman, Alan Sussman, "Considering the definition of addiction", *International Journal of Environmental Research and Public Health*, No. 8, 2011, pp. 4025-4038.
- <sup>11</sup> Bernardo Cattarinussi, "Il gioco d'azzardo patologico" in *Non posso farne a meno. Aspetti sociali delle dipendenze*, Bernardo Cattarinussi (ed), FrancoAngeli, Milano, 2013, pp. 107-206.
- <sup>12</sup> Ivan Goldberg, "Internet addiction", 1996, <http://www.cmhc.com/mlists/research> (accessed on 3 March 2015)
- <sup>13</sup> *Idem*.
- <sup>14</sup> Mark Griffiths, *op. cit.*, p. 2; Mark Griffiths, "Internet Addiction – Time to be taken seriously?", *Addiction Research*, Vol. 8, No. 5, 2000, pp. 413-418.
- <sup>15</sup> Kimberly Young, "Internet Addiction. The emergence of a new clinical disorder." *Center for on-line addictions*, 1996, <http://www.netaddiction.com> (accessed on 23 February 2015); Kimberly Young, *Caught in the net*, John Wiley and Sons Inc., New York, 1998.
- <sup>16</sup> Robert Davis, "A cognitive-behavioural model of pathological Internet use (PIU)", *Computer in Human Behaviour*, No. 17, 2001, pp. 187-195.
- <sup>17</sup> Tonino Cantelmi, Massimo Talli, "Internet Addiction Disorder", *Psicologia contemporanea*, No. 150, 1998, pp. 4-11.
- <sup>18</sup> Giorgio Nardone, Federica Cagnoni, *Perversioni in rete. Le psicopatologie da Internet e il loro trattamento*, Editore Ponte alle Grazie, Milano, 2002.
- <sup>19</sup> Daria Kuss, Mark Griffiths, "Online social networking and addiction – A review of the psychological literature", *International Journal of Environmental Research and Public Health*, Vol. 8, No. 9, 2011, pp. 3528-3552.
- <sup>20</sup> Kimberly Young, "Internet Addiction – A new clinical phenomenon and its consequences", *American Behavioural Scientist*, Vol. 48, No. 4, 2004, pp. 402-415.
- <sup>21</sup> Kimberly Young, "Facebook Addiction Disorder?", *Center for online Addiction*, 2009, [http://www.netaddiction.com/index.php?option=com\\_blog&view=comments&pid=5&Itemid=0](http://www.netaddiction.com/index.php?option=com_blog&view=comments&pid=5&Itemid=0) (accessed on 8 March 2015).
- <sup>22</sup> Andrea Cagioni, Giulio Vidotto Fonda, "Usi di Facebook e vulnerabilità online. Una ricerca tra gli studenti di Firenze e Pistoia" in *Sociologia della salute e web society*, Costantino Cipolla, Antonio Maturo (eds), FrancoAngeli, Milano, 2014.
- <sup>23</sup> <http://www.cinaforum.net/un-esercito-di-internet-dipendenti-che-spaventa-il-partito> (accessed on 25 March 2015).

- <sup>24</sup> <http://vincos.it/world-map-of-social-networks> (accessed on 10 April 2015).
- <sup>25</sup> L.S. Gandhi, Y.A. Modi, "Internet Sociology: Impact of Facebook addiction on lifestyle and other recreational activities of the Indian youth", 2104. DOI 10.1051/shsconf/20140500001 (accessed on 28 February 2015).
- <sup>26</sup> Paul Kirschner, Aryn Karpinski, "Facebook and academic performance", *Computers in Human Behaviours*, No. 26, 2012, pp. 1237-1245.
- <sup>27</sup> Rob Nyland, Raquel Marvez, Jason Beck, "MySpace: Social networking or social isolation?", 2007, In *Proceedings of the Midwinter Conference of the Association for Education in Journalism and Mass Communication*, Midwinter Conference of the Association for Education in Journalism and Mass Communication, Reno, NV, USA, 23-24 February 2007.
- <sup>28</sup> Daria Kuss, Mark Griffiths, Jens Binder, "Internet addiction in students: prevalence and risk factors", *Computers in human behaviours*, Vol. 29, No. 3, 2013, pp. 959-966, DOI 10.1016/j.chn.2012.12.024.
- <sup>29</sup> Marino Cavallo, Federico Spadoni, *I social network: come Internet cambia la comunicazione*, FrancoAngeli, Milano, 2010.
- <sup>30</sup> Costantino Cipolla, *Perché non possiamo non essere eclettici. Il sapere sociale nella web society*, FrancoAngeli, Milano, 2013.
- <sup>31</sup> Viktor Brenner, "Psychology of computer use: XLVII. Parameters of Internet use, abuse and addiction : the first 90 days of the Internet usage survey", *Psychological Reports*, No. 80, 1997, pp. 879-882.
- <sup>32</sup> Kimberly Young, *op. cit.*, p. 5.
- <sup>33</sup> Kimberly Young, *op. cit.*, p. 5.
- <sup>34</sup> Al Bellamy, Cheryl Hanewicz, "Social psychological Dimensions of Electronic Communication", *Electronic Journal of Communication*, Vol. IV, 1999, <http://www.sociology.org/content/vol004.001/bellamy.html> (accessed on 15 March 2015).
- <sup>35</sup> Malcolm Parks, "Making Friends in Cyberspace", *Journal of Communication*, Vol. 46, No.1, 1996, pp. 80-97.
- <sup>36</sup> Barry Wellman, "An electronic group is virtually a social network" in *Research milestones on the information highway*, Sara Kiesler (ed), Lawrence Erlbaum, Hillsdale - NJ, 1996.
- <sup>37</sup> Erving Goffman, *The Presentation of Self in Everyday life*, translated by Margherita Ciacci, Il Mulino, Bologna, 1997.
- <sup>38</sup> John Thompson, *The Media and Modernity*, translated by Paola Palminiello, Il Mulino, Bologna, 1998.
- <sup>39</sup> Al Bellamy, Cheryl Hanewicz, "An Exploratory Analyses Of The Social Nature Of Internet Addiction", *Journal of Sociology*, 2001, <http://www.sociology.org/content/vol005.003/ia.html> (accessed on 15 March 2015).
- <sup>40</sup> Jodi O'Brien, "Writing in the body: Gender (re)production in online interaction" in *Communities in Cyberspace*, M. Smith, P. Kollock (eds), Routledge, London, 1999.
- <sup>41</sup> Saraceno Chiara, Naldini Manuela., *Sociologia della famiglia*, Il Mulino, Bologna, 2001.
- <sup>42</sup> Al Bellamy, Cheryl Hanewicz, *op.cit.*, p. 10.

## Bibliography

- Alonso Fernandez, Francisco, "La dipendenza dal gioco", *Le altre droghe*, EUR, Roma, 1999.
- Bellamy Al., Hanewicz Cheryl, "Social psychological Dimensions of Electronic Communication", *Electronic Journal of Communication*, Vol. IV, 1998, <http://www.sociology.org/content/vol004.001/bellamy.html>
- Bellamy Al, Hanewicz, Cheryl, "An Exploratory Analyses Of The Social Nature Of Internet Addiction", *Journal of Sociology*, 2001, <http://www.sociology.org/content/vol005.003/ia.html>.
- Brenner, Viktor, "Psychology of computer use: XLVII. Parameters of Internet use, abuse and addiction: the first 90 days of the Internet usage survey", *Psychological Reports*, No. 80, 1997, pp. 879-882
- Caforio, Grazia, *New Addiction*, 1999, <http://www.psichiatria.it/emepug>.
- Cagioni, Andrea, Fonda, Giulio Vidotto,"Usi di Facebook e vulnerabilità online. Una ricerca tra gli studenti di Firenze e Pistoia" in *Sociologia della salute e web society*, Costantino Cipolla, Antonio Maturo (eds), FrancoAngeli, Milano, 2014.
- Cantelmi, Tonino, Talli, Massimo, "Internet Addiction Disorder", *Psicologia contemporanea*, No. 150, 1998, pp. 4-11.
- Cattarinussi, Bernardo, "Il gioco d'azzardo patologico" in *Non posso farne a meno. Aspetti sociali delle dipendenze*, Bernardo Cattarinussi (ed), FrancoAngeli, Milano, 2013, pp. 107-206.
- Cavallo, Marino, SPADONI, Federico, *I social network: come Internet cambia la comunicazione*, FrancoAngeli, Milano, 2010.
- Cipolla, Costantino, *Perché non possiamo non essere eclettici. Il sapere sociale nella web society*, FrancoAngeli, Milano, 2013.
- Davis, Robert, "A cognitive-behavioural model of pathological Internet use (PIU)", *Computer in Human Behaviour*, No. 17, 2001, pp. 187-195.
- Gandhi I.S., Modi Y.A., "Internet sociology: Impact of Facebook addiction on the lifestyle and other recreational activities of the Indian youth." DOI 10.1051/shsconf/20140500001.
- Goffman, Erving, *The Presentation of Self in Everyday life*, translated by Margherita Ciacci, Il Mulino, Bologna, 1997.
- Goldberg, Ivan, "Internet addiction", 1996, <http://www.cmhc.com/mlists/research>.
- Griffiths, Mark, "Technological Addictions", *Clinical Psychology Forum*, No. 76, 1995, pp. 14-19
- Griffiths, Mark, "Internet Addiction – Time to be taken seriously?", *Addiction Research*, Vol. 8, No. 5, 2000, pp. 413-418.
- Kirschner, Paul, Karpinski Aryn, "Facebook and academic performance", *Computers in Human Behaviours*, No.26, 2012, pp.1237-1245.
- Kuss, Daria, Griffiths, Mark, "Online social networking and addiction – A review of the psychological literature", *International Journal of Environmental Research and Public Health*, Vol. 8, No. 9, 2011, pp. 3528-3552
- Kuss, Daria, Griffiths, Mark, Binder, Jens, "Internet addiction in students: prevalence and risk factors",

- Computers in human behaviours*, Vol. 29, No. 3, 2013, pp. 959-966.
- Maddux, James; Desmond, David, "Addiction or dependence?", *Addiction*, Vol. 95, No. 5, 2000, pp. 661-665.
- Nardone, Giorgio; Cagnoni Federica, *Perversioni in rete. Le psicopatologie da Internet e il loro trattamento*, Editore Ponte alle Grazie, Milano, 2002.
- Nyland, Rob; Marvez, Raquel; BECK, Jason, "MySpace: Social networking or social isolation?", 2007, in *Proceedings of the Midwinter Conference of the Association for Education in Journalism and Mass Communication*, Midwinter Conference of the Association for Education in Journalism and Mass Communication, Reno, NV, USA, 23-24 February 2007.
- O'Brien, Jodi, "Writing in the body: Gender (re)production in online interaction" in *Communities in Cyberspace*, Marc Smith, Peter Kollock (eds), Routledge, London, 1999.
- Pani, Roberto, Biolcati, Roberta, *Le dipendenze senza droga*, UTET, Torino, 2006, p. 4.
- Parks, Malcolm, "Making Friends in Cyberspace", *Journal of Communication*, Vol. 46, No.1, 1996, pp.80-97.
- Pascoli, Monica, "Shopping addiction e questioni di genere", in *Sociologia della salute e web society*, Costantino Cipolla, Antonio Maturo (eds), FrancoAngeli, Milano, 2014.
- Rigliano, Paolo, *In-Dipendenze*, Gruppo Abele, Torino, 1998.
- Saraceno, Chiara, Naldini, Manuela, *Sociologia della famiglia*, Il Mulino, Bologna, 2001.
- Shaffer, Howard, "Understanding the means and objects of addiction: technology, the Internet, and gambling", *Journal of Gambling Studies*, Vol. 12, No. 4, 1996, pp. 461-469.
- Sussman, Steve, Sussman, Alan, "Considering the definition of addiction", *International Journal of Environmental Research and Public Health*, No. 8, 2011, pp.4025-4038.
- Thompson, John, *The Media and Modernity*, translated by Paola Palminiello, Il Mulino, Bologna, 1998
- Wellman, Barry, "An electronic group is virtually a social network" in *Research milestones on the information highway*, Sara Kiesler (ed), Lawrence Erlbaum, Hillsdale - NJ, 1996.
- Young, Kimberly, "Internet Addiction. The emergence of a new clinical disorder." *Center for on-line addictions*, 1996, <http://www.netaddiction.com>.
- Young, Kimberly, *Caught in the net*, John Wiley and Sons Inc., New York, 1998.
- Young, Kimberly, "Internet Addiction – A new clinical phenomenon and its consequences", *American Behavioural Scientist*, Vol. 48, No. 4, 2004, pp.402-415.
- Young, Kimberly, "Facebook Addiction Disorder?", *Center for online Addiction*, 2009, [Http://Www.Netaddiction.Com/Index.php?Option=Com\\_Blog&View=C omments&Pid=5&Itemid=0](Http://Www.Netaddiction.Com/Index.php?Option=Com_Blog&View=C omments&Pid=5&Itemid=0)