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From prosumers to observers: an emergent trend on the Internet and among Young Ecuadorians. Results from the World Internet Project study, Ecuador

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Abstract
Introduction In this article we analyze the data from the Digital 2019 study, prepared by We are Social and Hootsuite, which presents the global trend in the use of Internet and in Ecuador social networks. Next, the prosumer phenomenon, and we conclude with the presentation of the results of the empirical study World Internet Project -WIP-, chapter Ecuador, on the Internet consumption of young Ecuadorians, conducted by the University of Los Hemisferios. For this purpose, the variables referring to the reliability conferred by Internet users on the information that appears on the Internet, the frequency of publishing their own content and sharing other people’s content, as well as the perception of online privacy, were measured. The results of the investigation show that young Ecuadorians are Internet users, but prefer not to generate their own content, giving a new phenomenon that represents the abandonment of the figure of the prosumer giving way to the observer profile. The study was conducted taking the years of 2016 and 2017, with a total sample of 605 young Ecuadorians Internet users, with a confidence level of 95% and a margin of error of +/- 5. The results show an Internet use similar to the one that occurs in other countries of the region, and a relatively high national consumption, considering that this study was carried out in the three main cities of the country (Quito, Cuenca and Guayaquil), where most of the urban population lives.

Keywords
Internet, habits, prosumer, observer, young Ecuadorians

http://www.revistalatinacs.org/074paper/1366/50en.html
1. Social networks

1.1 Beginning

The six degrees of separation theory, which was introduced in the *Chains* tale by the Hungarian writer Frigyes Karinthy, published in 1929, foresaw the arrival of social networks (Watts, 2005). This theory establishes that all human beings are connected between them through no more than six mediators. At the beginning of the 1950s, Ithiel de Sosa Pool and Manfren Korchen, decided to mathematically prove such theory. The result of their research was the document *Contacts and Influences* (Korchen y Sosa Pool, 1978). In 1961, Michael Gurevich presented a relevant empirical study about the structure of social networks, which represented an important contribution to the study of association and connectivity (Gurevich, 1961). [2] In 1967, Stanley Milgram decided to prove the six degrees’ theory, which he referred to as “the problem of the small world”. In fact, his findings inspired the phrase “six degrees of separation” (Milgram, 1967), [3] retrieved term by the writer John Guare (1990), who used it as title for one of his books. Soon after, in a website from the University of Virginia, Brett C. Tjaden used Internet Movie Database (IMDb) and succeeded in documenting the connections between participants.

In 2004, Dale Dougherty, co-founder of the publishing American company O’Reilly Media, which edits books computing oriented, introduced this idea in a work session with Craig Cline, from Media Live, for the development of a conference. Dougherty argued that the Web, in that moment, was in a rebirth period. Everything that had functioned before was now changing and the new Web demanded more user participation, interaction and collective communication. Something that contrasted the traditional Web, static and passive, which prevailed during that time (O’Reilly, 2005). According to Dougherty, services such as DoubleClick (www.doubleclick.com), Ofoto (nowadays: www.kodakgallery.com), Encyclopedia Britannica (www.britannica.com), and Mp3.com (www.mp3.com), among others, were characteristic of the Web 1.0 and respectively contrasted new ones such as Google AdSense (www.google.com/adsense), Flickr (www.flickr.com), Wikipedia (www.wikipedia.org) and Napster (www.napster.com), which were seen as representative of the Web 2.0.

During the first lustrum of the XXI century, other technological platforms highly representative of the Web 2.0 were developed. The cases were such from MySpace (www.myspace.com), an interesting space containing a huge community constantly sharing all kinds of information (photos, videos, audios, texts), You Tube (www.youtube.com) the platform for display and exchange of any type of video. Facebook (www.facebook.com), created for the interaction of people through an interesting and functional interface, which was positioned as the second most important social network in the web, after MySpace. Furthermore, other interesting platforms should be added to this list such as LinkedIn (www.linkedin.com), and Twitter (www.twitter.com). All of these platforms contributed to a new revolution on the Internet, which gave service users the power of decision and creation. The revolution of social networks.
In 2011, Facebook completed the study Anatomy of Facebook,[4] in which users of this social network participated. Famous people and celebrities were intentionally excluded. The study showed that Facebook users were connected between them by five degrees of separation. However, three years later, in 2014, Eman Daraghmi, researcher at the Palestine Technical University in Kodoorie, and Shyan Ming Yuan, researcher at the National Chiao Tung University, published the study We are so close, less than 4 degrees separating you and me, in Computers in Human Behavior. [5] The aforementioned authors concluded that each person today is separated by four mediators.

David Bohnett, creator of Geocities, [6] had foreseen the possibility of creating social networks, as known today, during the decade of 1980s. Nevertheless, Bohnett focused his time on Geocities, which stopped functioning in 2009. Whereas, Randy Conrads is known as the creator of the first social network: Classmates.com, which joined the web in November 17, 1995. Later on, relatively similar social networks were introduced, such as Friendster (2002), MySpace (2003), Tribe.net (2003), Xing (2003). However, the big milestone in the history of social networks was established by Facebook, created in 2004 by Mark Zuckerberg, Eduardo Saverin, Andrew McCollum, Dustin Moskovitz and Chris Hughes.

1.2 Facebook. The crisis of the most important ecosystem in social networks

In 2003, Mark Zuckerberg, student at Harvard University, published on the Internet the website FaceMash with pictures and names of some students in this recognized university. The website was only available for some hours. Zuckerberg was sanctioned by the university authorities. It was confirmed that he had taken information and images from the institutional electronic system without permission.

In January 2004, the Winklevoss brothers and Divya Narendra shared with Zuckerberg some ideas to develop an online directory of the members of the many fraternities at the university. Zuckerberg accepted to join the HarvardConnection.com project; although simultaneously working in his own project, very similar to the one created by the brothers and Narendra. Finally, the project thefacebook, by Mark Zuckerberg was published on the Internet on February 4, 2004. The brothers and Narendra sued Zuckerberg. He was accused of intentionally delaying the project HarvardConnection.com in order to publish his first. Moreover, they affirmed Zuckerberg had plagiarized their Project.

The social network thefacebook became extremely popular in Harvard, and quickly expanded to other universities from the “Ivy League”. [7] Zuckerberg defined an aggressive business model that allowed his network to rapidly spread over the selected group of elite universities in United States. Sean Parker, creator of Napster, who was president of thefacebook for a short period of time, was attributed for removing the word “the” from the name of the network.

Facebook is the most popular social network in the world, and also one of the most valuable brands. It is in the top ten of the three most important studies regarding the most valuable brands in the world. According to what is being established in the study The World’s Most Valuable Brands 2018, carried out by Forbes (2018), Facebook is the fourth most valuable brand. Its value was estimated at $94.8 billion dollars. In the study 2018 BrandZ Top 100 Global Brands, the firm Kantar Millward Brown (2018) located Facebook as the sixth most valuable brand, with a value of $162.1 billion dollars. In
the study Best Global Brands 2018, the firm Interbrand located Facebook as the ninth most valuable brand, estimating its value in $45.1 billion dollars. Despite the formidable development of Facebook, 2018 resulted in a particularly complicated year. The study Best Global Brands 2018, by Interbrand, was not indifferent to this, estimating a depreciation of 6% in the value of Facebook in 2017.

In January 2018, at the Davos Forum, [8] George Soros, [9] influential financial speculator, openly questioned Google and Facebook, pointing that these companies, which seemed innovative at first, have become powerful monopolies, which obstruct innovation nowadays: “Social networks deceive their users manipulating their attention and directing it towards their own economical interests” (El País, 2018). Soros questionings were added to the offensive of a distinguished group of social network “repentants” such as Roger McNamee, investor during the first days of Facebook and Google, who published an interesting article in The Guardian (2017) noting that both companies “are threatening public health and democracy”. Sean Parker, first president of Facebook, affirmed that this social network exploits the “vulnerability of human psychology to create addiction among its users” (La Nación, 2018). The desire of immediate reward and curiosity for new experiences among adolescence prevail, thus, young people are more exposed to risk behaviors, associated with a dependency degree (Cho et al., 2014). Chamath Palihapitiya, who worked as vice president of Facebook, accused the social network of “tearing the current scheme of society functioning” (La Opinión, 2018).

Nevertheless, beyond questionings, the main crisis of trust in history with Facebook was started on March 17, 2018, when the reporters Matthew Rosserberg, Nicholas Confessore and Carole Cadwalladr (The New York Times) published declarations from Christopher Wylie, 28-year-old Canadian technological director of Cambridge Analytics (CA), [10] who declared that CA had bought big data from millions of users from Facebook. It is extremely important to emphasize that CA did not steal this big data of millions of users from Facebook. Facebook did sell them without the knowledge and consent of users. According to the newspaper La Vanguardia (2018), Wylie stated that CA had created a sophisticated machinery to manipulate the voters’ decision, which was used in Donald Trump’s campaign in the United States. CA also participated in the Brexit and executives from this company claimed the triumph of the option to abandon the European Union.

The case of Cambridge Analytics entailed a big blow to the credibility of the firm for manipulating the data of fifty million Facebook users to influence in personalized messages during Trump’s presidential campaign in 2016. This meant that 54% of its users confirmed adjusting their privacy settings.

During the first days of April in 2018, Facebook revealed that 81.6% of the data “stolen by CA” corresponded to US citizens (70 million 632 thousand people). While CA finally went bankrupt, Facebook reputation suffered a deep decline, which was reflected on the noticeable devaluation of its shares in the stock market. In only two days, Facebook lost 10 per cent of its value. Due to this, on Tuesday April 10, 2018, Mark Zuckerberg was obliged to answer the questioning of some members of the Judiciary and Commerce committees of the United States Senate.

However, it must be kept in mind that that was not the first time Zuckerberg and Facebook had been questioned because of the management of information their users have entrusted them. As Emilio Godoy (2018) sensibly documented in the seminar Proceso, in March 2010 Facebook was accused because its service Beacon tracked users’ purchases and shared that information with “friends”. In order to avoid trial, Facebook came to an extrajudicial agreement and paid 9 million 500 thousand
dollars. In 2012, Facebook similarly proceeded with another lawsuit, for using without permission names of some users to promote certain products in the section of sponsored news. Because of this, the amount of 20 million dollars was paid in another extrajudicial agreement. In May 2017, the French authority committed to data protection penalized Facebook with 185 thousand dollars. In addition, on September 11 of that same year, the Spanish Data Protection Agency (Agencia Española de Protección de Datos) announced a fine of 1 million 481 thousand dollars for violations to the regulation in terms of data protection.

Furthermore, Facebook is facing a serious generation crisis. Its growth is at a standstill and there is a significant change in the user profile. In January 2018, there were 2,167 million users, while in January 2019, the amount was 2,271 million users, hardly 5% more. Even though Facebook slightly grew the number of users, this growth is not generalized. The research firm eMarketer establishes that Facebook is losing its youngest users at a faster rate than expected, and the age of most of its users is around 55 years. If Facebook is growing, it is because it is positioning itself among older users. The analysis of the firm is based on surveys, traffic data, press releases, network trends and use of the Internet and cellphones. This study suggests that the youngest profile is mainly transferring to social networks such as Instagram and Snapchat [11]. Other social networks such as Whatsapp grew 15%, collecting 1,500 million users, and Instagram reached 1,000 millions and its growth was estimated at 25%.

One of the reasons adduced of this Facebook abandonment is the fatigue effect. The problem is not new, as the alarm went off in 2015, but it has become worse in the last months. Back then, Facebook detected a decrease in the number of status updates. In a survey done by Thomson Reuters in the United States, Facebook users were asked the reason behind sharing less content in social media. 47% of Facebook users said it was because they had problems with privacy. [12] The data published in 2015 in The Information revealed that in 2014 5.5% less of general content was shared on Facebook. In regard to personal content, updates decreased 21%. The report shows that this drop is particularly among users under 30 years old. Considering that, Facebook replied that users continue publishing content, although not original one since it is limited to forward viral videos or images published by others.

In short, the fact that it is no longer that attractive for young people implies a serious problem for Facebook as it is losing the generation replacement, meaning losing those users who in a near future would become the young adults’ brands would want to reach with their publicity. Moreover, a research by Nielsen (Investopedia, 2018) revealed that Facebook users have begun to concentrate less time on it. The research estimates that time focused on Facebook has fallen 7%. It points out that time spent in other online services such as Messenger, Instagram and Whatsapp made, along with Facebook, 16.9% in 2017, while in 2018 it represented 15.2% of online use. Time lost on Facebook is gained on YouTube (Google).

The research by Pew Research Center (2018) corroborates these statistics in the United States and finally replicated in the rest of the world. Its research claims that Facebook is losing relevance. According to Pew Research Center results, one out of four citizens deleted the Facebook app from their cellphones in the past year.

In relation with the impact in social networks, in teenagers’ lives, 31% consider it as positive for allowing the possibility to be connected, finding information and people with related interests; while 24% consider it as negative due to online harassment, fake news diffusion and addiction. On the other hand, 45% believes it is not either positive or negative. The study concludes that the reason for users to delete the app is the growing worry for privacy.
SMB are no longer as present on Facebook, since they do not trust its power for connecting with the public. A few years ago, social networks were considered the central axis of every communication and marketing campaign, regardless the brand or size of the company. Social networks allowed connecting with massive audience, to whom a deep message was reached at a low cost. But nowadays, the social network bubble has burst not only for its efficiency in campaigns, compared to previous years, but also because the very network, Facebook, has also been affected. Anyways, Zuckerberg already suspected this situation and warned his investors about a change in the algorithm in which family and friends content was strengthened against medial and websites content. Companies have been affected by this change in the rules of the game in relation to the algorithms, as now content of friends prevails over company websites. Its changes in the algorithm do not favor the organic growth of companies, but Facebook has changed focus to other sections within its network: the groups. This function allows a community to be created and has tools to interact without the need of using a budget for publicity campaigns. What is attractive about the groups is establishing a closer connection among members of this community. Jennifer Dulski, responsible for groups and communities on Facebook, mentioned “a website is the main door to a house which everyone sees, but a group is inviting certain people to a room”. This way, it is becoming more difficult to get to the news feed of a user, being extremely complicated for the brand to connect with the user. This situation leads companies to the payment tools in order to reach audiences, something that was not happening in the first place.

With the new algorithm, likes, comments or shares are requirements to appear in the users newsfeed, and furthermore, brands need to avoid penalties for publishing confusing titles (clickbaiting) [13] or requesting interaction.

Likewise, companies have also been affected in social listening. Social networks facilitate consumer’s comprehension. According to the study Social Listening Platforms, Q3 2018 by Forrester Wave (2018), the marketing department of companies show certain disappointment with the listening tools from social networks, for not being able to integrate with other tools to add data. They believe that the data all social networks use is the same one since they follow all of them, same users and same social content. Thus, the data sources tend to be similar in every supplier because they are all based on the same social networks and because the same users who add social content in websites are involved. A report from Engagement Labs [14] (2018) establishes that incomes obtained only from social networks are not representative of the off line discussion. Separated techniques should be addressed for each channel since on line and off line conversations take place in two extremely different ecosystems.

2. Numbers and data. Digital 2019
2.1 Worldwide data

The main researches about the use of the Internet worldwide (International Telecommunications Union, 2018), (World Economic Forum, 2018), (United Nations, 2018), (We are social-Hootsuite, 2019) agree on noticing a noticeable increase in the use of the Internet among all ages. This is highly due to the fact that a bigger number of people nowadays have access to the Internet. Nevertheless, not only that, it becomes indispensable for millions of people.

Towards the end of February 2019, the third annual edition of the Inclusive Internet Index (3i) was released, which the Intelligent Unit from The Economist makes about Facebook. 100 countries were
analyzed based on four categories: availability, affordability, relevance and preparation, considering a scale from 0 to 100, in which 100 represents the best evaluation possible.

The countries with the best evaluations received in availability were: 1.- Singapore (92.7), 2.- Sweden (85.2), 3.- Switzerland (85.0), 4.- Spain (84), 5.- Denmark (83.4). The best evaluations for Latin American countries were Chile, 30 (73.7), Argentina, 39 (70.5), Brazil, 44 (68.9), Uruguay, 45 (68.2), Colombia, 49. Ecuador was located in the number 58 and its assigned evaluation of 63.5

Regarding affordability, the countries with the best evaluations were: 1.- Canada (99.2), 2.- United States (99), 3.- France (96.3), 4.- Sweden (96.1), 5.- United Kingdom (95.5). The best evaluations for Latin American countries were Chile, 7 (93.8), Brazil, 11 (91), Costa Rica, 25 (86.9), Argentina, 27 (86.2), El Salvador, 29 (85.6). Ecuador was located in the position 59 and received 72.0

In relevance, the nations that received the highest grades were: 1.- Finland (94.2), 2.- Estonia (92.8), 3.- Sweden (92.7), 4.- Poland (92.5), 5.- United States (92.3). These are the Latin American countries with the best results: Uruguay, 16 (89.4), Brazil, 18 (89.2), Chile, 24 (86.9), Mexico, 25 (86.8), Ecuador, 37 (84.0).

In preparation, the nations with the highest results received were: 1.- Qatar (86.5), 2.- Chile (83.7), 3.- Costa Rica (83.0), 4.- South Africa (82.6), 5.- Spain (82.3). This is the list of countries in Latin America that received the best results: 2.- Chile (83.7), 3.- Costa Rica (83.0), Dominican Republic, 10 (80.6), Argentina, 14 (79.7), Mexico, 19 (78.2). Ecuador was located in the position 58 and its assigned result was 67.7

The countries with the best evaluations received in the study were: 1. Sweden (89.5), 2.- Singapore (87-3), 3.- United States (86.3), 4.- Denmark (85.9). 5.- United Kingdom (85.4). The nations in Latin America with the best results obtained were Chile, 16 (83.4), Brazil, 31 (79.7), Argentina, 33 (78.2), Colombia, 35 (76.1), Mexico, 45 (73.4). Ecuador was found in the position 54 and the following result was assigned: 70.6

According to what it was established in the report “Digital 2019. Essential information regarding how people worldwide use the Internet, mobile devices, social networks and electronic trade”, done by the firm We are social-Hootsuite, world population was estimated at 7,676,000,000 people, from which 4,388,000,000 use the Internet. The global penetration of the Internet was determined in 57% [15] Furthermore, during 2018 367,000,000 were estimated as new Internet users—slightly more than a million of new users per day-. This number represents an increase of 9.1 per cent in relation to total number of new Internet users estimated in 2007, according to the study We are social-Hootsuite published in January of 2018.

These are some of the figures from the most recent study by We are social-Hootsuite. The five more visited websites during 2018 were: Google, YouTube, Facebook, Baidu, Wikipedia. The five more searched terms on the Internet were: “Facebook”, “Youtube”, “Google”, “Video”, “You”. The global average fixed Internet connection speed—which is determined based on the average downloading speed in fixed Internet connections- is 54.3 Mbps. [16] The global average speed connection to mobile Internet was established in 25.1 Mbps. [17] Spanish is the forth most spoken language online (English figures in the first place), and Internet users are online an average of 6 hours and a half a day. [18]
The total amount of mobile device users was estimated at 5,112,000,000. Thus, the global penetration was established as 67%. The number of active users on social networks was estimated at 3,484,000,000 people, which represent 45 per cent of global population. Moreover, 3,256,000,000 mobile users of social networks were estimated, which represent 42% of global population. The social networks with the biggest number of users are: Facebook (2,271,000,000), You Tube (1,900,000,000), WhatsApp (1,500,000,000), Facebook Messenger (1,300,000,000), Weixin/Wechat (1,083,000,000). Despite its unquestionable influence in public opinion, Twitter was estimated at 326,000,000 users. Social network users are online an average of 3 hours and 12 minutes a day.

### 2.2 America

The study of We are social-Hootsuite also offer information about the range and penetration of the Internet by region, as well as an extensive list of countries. In America, total population was estimated at 1,020,000,000 inhabitants. From this total, 81% live in urban populations. Subscriptions to mobile devices increase to 1,058,000,000. This figure represents 104% of penetration. In addition, 798,400,000 of Internet users were calculated, so the Internet penetration was established in 78%. Social network users were estimated at 673,100,000. This figure represents 66% of penetration in total population. Active mobile users of social networks were estimated at 610,500,000. This number is equivalent to 60% of the total population.

Between 2017 and January 2018, the growth of mobile subscriptions (10,000,000) was beginning (0.9%). On the other hand, the growth seen in the number of Internet users (57,000,000) was significant (7.7%). The rise among social network active users (25,000,000) was established in 3.8% However, the growth of active mobile users of social networks (29 millions) was bigger, which represented an increase of 5% in relation to 2017.

### 2.3 South America

In South America, the total population was estimated at 430,000,000 people, from who, 316,000,000 were Internet users. Consequently, Internet penetration was estimated at 73%, a lower figure (-5%) than the average in the continent (78%). Mobile connectivity –which is determined when considering the total amount of mobile subscriptions and total population- was set in 109%, a 4% higher figure than the continental average (105%). In regard to social networks, 285,000,000 of users were estimated. As a result, social network penetration was established in 66%, similar figure to the continental average.

### 2.4 Ecuador

We are social-Hootsuite estimated 16,980,000 inhabitants in Ecuador, and considers 64% of the population is located in urban areas. 14,770,000 of mobile device users were estimated in this Andean country, which represent 87% of the population penetration. The mobile device penetration is well below the continental average (104%).

The total number of Internet users in Ecuador was estimated at 13,480,000. [19] Therefore, Internet penetration was established at 79%, higher (+1%) than the continental average (78%), and also higher
(+6%) than the average in South America (73%). The total amount of social network users was estimated at 12,000,000. This represents 71% of the population penetration, figure (+5%) higher than the continental average and the South America average. The number of mobile users was estimated at 11,000,000. This figure is equivalent to a 65% penetration in the population.

In the period between January 2018 and January 2019, 934,000 new mobile subscribers were estimated. The percentage increase observed in the aforementioned period was 6.8% The number of new Internet users (4,951) is confirmed to be incipient. This figure represents an increase of 0.04% In contrast, the number of new social network users grew significantly (1,000,000). That figure represents a 9.1% growth. The number of mobile social network users (1,000,000) also increased. This represents a 10% growth.

3. The prosumer

Although the concept has its origin in McLuhan (1972) and Alvin Toffler (1980), it is not until well into the 21st century when it has become popular. Prosumer has its essence in the union of two concepts: producer and consumer. At the beginning it did not refer to the technological field but to the economic one since it showed the person who makes and consumes his/her own products to the prosumer, with the absence of intermediaries. McLuhan and Nevitt (1972) mentioned the technological environments and how they would influence the role of man as producer and consumer. Toffler in his book The Third Wave (1980) also predicted other prosume possibilities such as teleworking, referring to the one done through the Internet. McLuhan’s work is in force at the time of social network creation as there is similarity between his thought and their reality. His concept of globalization through the media, the technological influence on the society of the future, has caused his ideas to remain current over time.

More than 50 years have passed since the birth of the Internet (1969), and one of the most attractive aspects of the network is the user participation with 2.0 tools that allow creating, sharing and transforming information, modifying the idea that the Internet only allowed getting information (Web 1.0). With blogs, wikis, and social networks among other channels, integrating this scenario of user participation as producer and consumer of information.

Social networks in particular contribute more clearly and immediately to make the prosumer a much more active user, since it creates opinions about certain topics. Consequently, Ávalos, Rivero and Vigouroux (2011, p.264) mention that social networks “share the idea of interacting and connecting their users through publication of pictures, videos, texts, etc. encouraging the production of homemade material, which later on can be shared with others around the world”. There is even more quantity of information in social networks than in organizations, the user taking a leading role in the information and knowledge society (Islas and Arribas, 2010).

There are three key actions with new media according to Galera and Valdivia (2014): creating, sharing and spreading. On the first point, possibilities to create thanks to new technologies and devices surpass the imagination of previous generations, whose means were quite limited. In addition, “content creators –and its consumers– have a clear objective: to share it” (p.10). Precisely, the second action, sharing, is key in the prosumer’s process. There is no point in creating if it is not for sharing. Social networks take an important role because they are a medium in which any content can be published.
Finally, if you share, you participate: the last action. Therefore, it is that participatory culture of audiences that leads to have from a feedback to witness a fact. When talking about participatory culture we need to refer to Henry Jenkins, who analyzed in his book *Convergence culture: where old and new media collide* (2008) changes that social networks, in particular Youtube and My Space, could introduce in media scenario. He also points out that participatory culture does not start and end with the Internet since communities of practice growing around the participatory culture are strong educational environments [20], with a desire to share what is learned and the need of thinking with the rest.

A critical stance towards participatory culture is the existence of a rhetoric of participation in all areas as if it were mandatory to participate or open spaces for participation, and advocates for the right to non-participation in contemporary societies (Jenkins et al., 2005).

The third action, spreading, allows prosumers to reach millions of people in a short time, eliminating the limits of space and time. In this media environment, a digital competence with a series of skills to develop a participatory culture is necessary.

### 4. The research

This research is part of the global network World Internet Project (WIP), led by Doctor Jeffrey Cole, director of the Center for the Digital Future from Annenberg School for Communication at University of Southern California (USC). The study is carried out annually, in more than 32 countries, and with a common methodology, essential in order to know the habits and tendencies of a population in relation to information and communication technologies related to the Internet. The World Internet Project develops, annually and in a coordinated manner with each participating country, a study on the effects of the Internet and various associated communication technologies. The studies from WIP focus especially on exploring the influence of the Internet in social, political, cultural and economic spheres through periodic measurements of attitudes, values and perceptions of users and non-users of technologies in this new environment. Thus, the constant reconfiguration of communicative environments and their various repercussions in economic, political, social and cultural spheres.

Global results will not be given in this article, but only those related to the reliability of Internet information, social networks and privacy in young Ecuadorians.

We will focus our attention on the behavior of young Ecuadorians, from 18 to 23 years old. In order to do this, data from surveys conducted in 2016 and 2017, taken from the study World Internet Project (WIP), chapter Ecuador will be analyzed. The data was exploited using the statistical package SPSS.

### 4.1 Internet uses in young Ecuadorians. Findings

The study and analysis of Ecuadorian habits, attitudes, perceptions and tendencies in relation to the Internet and its associated technologies is a longitudinal research carried out at the University of Los Hemisferios (Ecuador) since 2010. This study, which is part of the international network of researchers from World Internet Project (WIP), explores the Internet influence in social, political, cultural and economic spheres through periodic measurements of attitudes, values and perceptions of Ecuadorian users and non-users of this technology.

In this article, the variables related to trust and credibility young Ecuadorians give to information on the Internet will be analyzed, the frequency in verifying a fact or information on the Internet, the frequency of use when creating content and sharing or viralizing content, and lastly, discovering their perception about online privacy. The percentages showed in the graphs are solely based on the responses from the respondents.

The use of the Internet in Ecuador has grown in recent years, following the global trend. Young people represent a sector of the population (20%) which, with an overwhelming majority, 98.1%, uses the Internet as an informative, social and entertainment medium [21], according to the results from WIP Ecuador (2016 and 2017).

The widespread use of the Internet among young people, especially social networks, has created new scenarios for social exchanges and interpersonal communication, which appears as one of the main uses for these new media. Returning to Thompson’s concept (1998) on media sociability [22] now Internet users can multiply the possibility of relationship not only with their usual contacts (family, friends, professionals), but also with other strangers, since new technologies allow new ways of relation and encounters. Castells (1996) defines a type of sociability developed online from the creation and development of virtual communities, so it could be a definition at the end. Later, Mora (2003) mentions it to understand the processes of simulated identity construction in the digital space. Likewise, Lara (2003) defines it as a form of social cybermediated social interrelation that changes the ways of social production of meaning. And López Sandoval (2014) to talk about youth social interactions mediated by digital devices with the aim of relating and leisure.

**Graph 1.** Reliability of information on the Internet

![Graph showing reliability of information on the Internet](http://www.revistalatinacs.org/074paper/1366/50en.html)
Young people use social networks to keep in contact with others and to get updates, news and other opinions (Kim et al., 2014). Searching for information through social networks is a participatory behavior, even Gil de Zúñiga, Jung and Valenzuela (2012) see how the use of digital media for informational purposes contributes to encouraging the promotion of democratic processes and the creation of social capital. It needs to be reminded that the current generation does not know other possibility of interaction with technologies but participating in them.

As it can be seen in Graph 1, young Ecuadorians give great credibility to information on the Internet, since it adds up to 46.7% of those who trust everything to half of what circulates on the Internet. In fact, only 9.4% completely distrusts its information.

Earlier, availability and diversity of information was lower, which made it easier to verify. Currently, we have access to a bigger amount of information, but it is difficult to determine its degree of validity. The use of the Internet to search information for entertainment or study purposes is quickly incorporated in young people. At university levels, searchers on the Internet have become indispensable.

The criteria used by young people, according to Sánchez-Navarro and Aranda (2011), to assess the veracity of information are: first, previous knowledge about that information; second, the prestige of the source; and last, the reiteration, that is, the possibility to access the same information through different sources. To which we should add a fourth criterion: the trust from friends and acquaintances networks (Melton et al., 2012). Another reason why there is high credibility to the information appearing on social networks, according to García, Navarro y Arias study (2014) is the possibility to participate.

**Graph 2. Verifying information on the Internet**

![Graph of information verification]

Source: WIP Ecuador. Own elaboration.

Catalina, Jiménez and Vozmediano (2015, p.606) support the hypothesis that “a bigger intensity in digital access modifies the news consumption among young people, but also this intensity influences
them in other aspects and behaviours, namely: in the selection of the media, in the preferences young people have about the type of information, the motivation to be informed, in their predisposition towards contrasting information and in the ways used to distribute it, as well as in their perception on impartiality and credibility different means of communication give”.

Precisely because of that trust young Ecuadorians have in Internet information, they were asked about the frequency of going online to verify or contrast information. It can be observed in Graph 2 that 38% of the respondents affirm to verify the information of a fact through Internet once or several times a day. Never does 11,1%. These data confirm the Internet as a relevant source of verification of news, fact or information.

It cannot be avoided to mention the fact checking phenomenon regarding fake news created in digital platforms. Despite the criticism social networks receive as unreliable channels, they are an important source in which young Ecuadorians verify information. The question is whether with this information saturation, the process of infoxication and lack of information they are exposed to, influence the quality of verification.

Given the reliability offered by Ecuadorian Internet users and their routine of data verification, young people were asked about their activity of content creation and viralization, mainly involving social networks. Data presented by other studies in this article pointed out that social network users shared less content in them.

**Graph 3. Frequency to publish own content**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Several times a day</td>
<td>6,70%</td>
<td>18,50%</td>
</tr>
<tr>
<td>Once a day</td>
<td>16,10%</td>
<td>18,60%</td>
</tr>
<tr>
<td>Once a week</td>
<td>17,90%</td>
<td></td>
</tr>
<tr>
<td>Once a month</td>
<td>7%</td>
<td>22,50%</td>
</tr>
<tr>
<td>Less than once a month</td>
<td>4,70%</td>
<td>25%</td>
</tr>
<tr>
<td>Never</td>
<td>0%</td>
<td>5,90%</td>
</tr>
<tr>
<td>No answer</td>
<td>2,50%</td>
<td>1%</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>3,40%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source. WIP Ecuador. Own elaboration.
Graph 3 shows that young Ecuadorians do have the habit of publishing personal content on the Internet, although the comparison between both years shows that their frequency of publication has dropped considerably. Thus, in the answer to publish authorship content several times a day it dropped almost 12% (from 18.5% to 6.7%); doing it once a day decreased slightly (from 18.6% to 16.1%). But those young Ecuadorians who 49.2% publish their own content once a week during 2016, clearly fell to 17.9% during 2017. 7% represents those young people who say they do it once a month in 2016, while in 2017 it rises to 22.5%. Less than once a month represents 25% in 2016, while in 2017 it is 4.7%. It should be noted that 5.9% is connected, but does not publish anything of their own in 2017.

Viralization emerges as a viral marketing technique that uses marketing techniques to explode full potential social networks have to reach a large amount of people quickly. This leads to know users activity in social media. Graph 4 aims to show the trend, in a comparison of 2016 and 2017, of young Ecuadorians when viralizing or sharing content created by others. This way, it can be identified that the most active Internet users, the ones who publish several times a day and once a day content from others, do so more frequently in 2017 than in 2016. It is noteworthy that those who do it once a day in 2017 (18.1%), earlier in 2016 did not do it (0%). These data reveal the upward trend of greater activity when sharing and viralizing information other users have published.

**Graph 4. Frequency of publishing and/or sharing links and/or content created by others**

Privacy of people, and in particular, communications, is a fundamental human right as stated in Article 12 of the Universal Declaration of Human Rights, which also mentions that states are responsible for guaranteeing this right.
On the Internet, confidentiality implies information to be available only to authorized user. This is important within social networks because misuse of confidential information might have consequences in private life. There are also other variables such as integrity which requires information to only be modified by authorized people, and authenticity, when the user is really who this person claims to be.

The perception young Ecuadorians have about Internet privacy is reflected in Graph 5. It can be seen in it that 25% affirm to completely agree that there is no privacy on the Internet, compared to 5% who disagree. In the results on the perception of privacy, 53% believe that online privacy does not exist or doubts it, and 15% believe it does exist. 26.2% of the respondents show a neutral position, that is, they do not position themselves due to ignorance or because they have not thought about the issue of privacy.

**Graph 5.** No privacy

![Graph showing the perception of privacy among Ecuadorians](http://www.revistalatinacs.org/074paper/1366/50en.html)

Source: WIP. Ecuador. Own elaboration.

Most social networks are based on already pre-existing relations in reality. A profile in the social network is a person in real life, and this should not change in social networks. But social networks may become dangerous if privacy settings are not correctly adjusted, leading to situations such as identity theft, type falsification, content misappropriation, harassment and abuse.
Going deeper into the topic of online privacy, respondents were asked whether they had ever suffered from a privacy violation. Graph 6 reveals that 13.3% left the answer blank (no answer) and specifically 14.9% did not want to answer. In this case, the fact that a high percentage (28.2%) does not give an answer, and also considering that in the rest of the questions this percentage is quite low, could mean that the respondents do not wish to reveal this unpleasant situation. 24% indicated that they have never been involved in this situation, but 48% confirm to have suffered a violation of their privacy in different degrees and consequences (psychological, financial, social). Out of them, 5% admitted to have had serious consequences.

**Graph 6. Violation of privacy on the Internet**

![Image of Graph 6]

Source: WIP. Ecuador. Own elaboration

### 5. Conclusions

Virtual social networks allow to maintain, in the virtual world, the links established in the physical world. The network has become then that third place between the private world and the public world, in which on the one hand, we are reunited with old relationships, and on the other hand, we continue to build new links (Orihuela, 2008). Therefore, teenagers and young people use them to extend their social life. Social networks are useful not only for chatting, sharing photos, videos, but also, for becoming content generators, that is, prosumers. Beyond generating and consuming content, “from the moment that the various aspects from social life (economic, linguistic, etc.) are expressed as relationships, the path is open for an anthropology conceived as a general theory of relations, and for an analysis of the societies in terms of different characteristic features of the the systems of relationship
that define them” (Lévi-Strauss, 1973, p.88). Moreover, social networks work, according to Orihuela, as a filter system to allow an adjustment of the information flow received based on the common interests of user, and “the interests of those we trust”.

From the perspective of Media Ecology, media and technology are extensions of our senses, organs and faculties (McLuhan, 1996). In the early years of the 1960s, Marshall McLuhan saw the exhaustion of the “Electric Age”, and anticipated the transition to the global village –a concept that means the compaction of the world-. From the point of view of the Ecology of the Media, social networks can be considered as perfect extensions of our veins and arteries.

The new digital ecology brings a series of challenges and opportunities for everyone. Each technology, although it opens endless possibilities, imposes certain limitations. Nevertheless, the more people use them, the more they will adapt to their ways, structure and function.

The various devices connected to the Internet are an extremely versatile extension of our senses, our knowledge and our memory, which have an important function as powerful neural amplifiers. However, some suggest that the negative effects of these new digital technologies may be equally strong (Carr, 2010). For this reason, a thorough assessment of any new technology must always be carried out, triggering certain sensitivity towards both what is lost and gained, since the promises of technology must not restrict the possibility of limitation or reduction of an essential part of ourselves.

Nowadays we realize we are immersed in a constant search –consciously or unconsciously– for more efficient ways to develop or flow in this new specific digital environment called the Internet, just as we have done in other ecosystems. As a result of this search perceptions, habits, customs and general actions to ensure our own evolution have been modified. A person, here as in any other part of the world, has the need to move more easily within the environment in which he or she is immersed and this is what triggers the tendency to acquire information and turn it into knowledge, through tools or devices available. The way of appropriation of technologies conditions the forms and effects. In this case, the analysis focused on the action of appropriation of social networks by people in response to the search for greater efficiency in the environment has led to inevitable prediction of possible consequences of the change in different areas. The effects of social networks appear in response to the search for greater efficiency of those using them.

For a more precise understanding of the effects these new digital technologies will continue to have, it will be helpful to keep applying the media ecology approach that helps to reveal the particularities of media environments. If a means of communication is defined as an environment, and an environment is defined as a system through which the human being establishes a predictable continuity in life, then the medium includes more than language and technology. The medium also includes what is commonly referred as social environments.

A classroom, a restaurant, a church, a hotel lobby, and a business office, are examples of social environments. Each of these spaces for human gathering are actually a complex system of messages whose structure imposes certain ways of thinking, feeling and behaving (Korzybsky, 2000). Such is the case of social networks.
The perspective of media ecology will lead to explore temporal, spatial, sensory, corporal, role and abstraction biases in an environment. It studies media as environments. The language, press, radio, television, elevator or networks create a hidden environment in which it is defined how people should behave, and this must be subject of analysis.

Social network have encouraged us to make public our private life. The inner core of our lives has been placed on them. Immediacy of information is one of the inherent qualities of new media, and social networks are extraordinary channels for quickly spreading information at a low cost. Nevertheless, as correctly pointed out by Neil Postman (1998), every technology always creates positive and negative effects on society. Digital technologies work as an interface that mediates between environment and user, although not in a transparent way but in an opaque way, through a more complex process of hypermediation such as the one suggested Bolter and Grusin (1999) suggested:

Like other media since the Renaissance –in particular, perspective painting, photography, film, and television– new digital media oscillate between immediacy and hypermediacy, between transparency and opacity. This oscillation is the key to understanding how a medium refashions its predecessors and other contemporary media. Although each medium promises to reform its predecessors by offering a more immediate or authentic experience, the promise of reform inevitably leads us to become aware of the new medium as a medium. Thus, immediacy leads to hypermediacy. The process of remediation makes us aware that all media are at one level a “play of signs”, which is a lesson that we take from poststructuralist literary theory. (Bolter and Grusin, 1999, p.19)

The immediacy mentioned by Jay Bolter and Richard Grusin, can be understood as an absence of mediation between the person and the environment. The installation of a level of transparency that makes technology imperceptible, and exposes directly to the audience (reader, listener, viewer) the objectives it represents, producing a sensation of authentic experience. On the other hand, hypermediacy reveals an act of mediation. A transition from transparency to opacity. The idea that information arrives filtered to the audience through a medium or instrument.

Young Ecuadorians have moved to a new stage: they use the Internet, but each time they produce less original content. Viralizing and sharing other people’s content has become an increasingly frequent habit. The phenomenon of prosume which gave us a communicative actor that produced its own content, and we have moved to a communicative actor that continues to use but producing less original content. Instead, this actor has become a born viralizer. Perhaps the immediacy of the medium that allows viralization within minutes and a response within seconds has led the prosumer to contribute with content immediately, without pausing for thoughtful construction. It is easier and faster to share and viralize content from others than creating personal content.

Regarding privacy on the Internet, the perception young Ecuadorians have about online privacy is that it hardly exists (the Cambridge Analitcy incident had not happened yet), and the control they have over their information (personal data, photos, files…) to limit access to authorized people is still a pending issue. Many of the respondents believe that there is no privacy and on the other hand, they have been subject to privacy violations. It is then necessary to think about the need for digital literacy in this aspect in order to apply privacy correctly. While it is a fundamental right, as it was mentioned.
in previous lines, privacy has been taken by national and international security policies, such as digital fingerprints, biometrics... whose express authorization from users does not exist.

Social networks nowadays confirm to be understood as the central subsystem in digital economy. In recent years, they have seen an accelerated expansion to the point of asserting themselves as one of the most visible, valued and coveted territories in cyberspace.

6. Notes

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2. The title of his doctoral dissertation at the Massachusetts Institute of Technology (MIT) was: The social structure of acquaintanceship networks, in Spanish: La estructura social de las redes de conocimiento.

3. Milgram recovered the Works carried out by Gurevich in terms of knowledge networks, and through an ingenious experiment, he tried to identify the number of necessary links to relate two completely unknown people. For his experiment, he chose individuals from the cities of Omaha, Nebraska and Wichita, Kansas. Milgram chose those cities because he considered there was a great geographical and social distance between them. The delivery of each package
involved between five and seven intermediaries on average. Milgram’s findings were published in Psychology Today, and inspired the phrase “six degrees of separation”.

4. In Spanish: Anatomía de Facebook.

5. In Spanish: Estamos muy cerca, menos de cuatro grados nos separan. In this research, and advanced tool specialized in social searches on Facebook was used: "We R So Close”. The authors concluded that the average number of acquaintances that separated two people was 3.9, regardless of who they were, even with unusual characteristics.

6. GeoCities was a free hosting service for websites, initially founded in 1994 as Beverly Hills by David Bohnett and John Rezner. Users of this service selected a “neighborhood” in which they would host their site. In April 2009, the closure of GeoCities was announced, which took place on October 26, 2009.


8. The World Economic Forum (WEF), also known as the Davos Forum, takes place every year, towards the end of January, since 1991, in Davos, Switzerland. The event brings together the main business leaders, political leaders, journalists and intellectuals, who analyze the major problems in the world.

9. George Soros -Schwartz György- was born in Budapest, Hungry, on August 12, 1930. Financial speculator, president of Soros Fund Management and founder of Quantum Fund, is accounted as responsible for the bankruptcy of the Bank of England, on September 16, 1992, operation for which he obtained earnings estimated at 1,000 million dollars. Today he is one of the richest men in the world.

10. Cambridge Analytica, a subsidiary of the British marketing company Strategic Communication Laboratories (SCL), was in charge of delivering analysis of data extracted from big data to companies and political organizations. The company has worked on several political campaigns around the world, including Donald Trump’s in 2016. The study of data made it possible to generate different messages, targeting voters based on their profiles in social networks such as Facebook and Snapchat. An investigation by the New York Times and The Observer revealed that Cambridge Analytics used the data of 50 million Facebook users to develop software to predict and influence voters. Facebook suspended access to its servers to Cambridge Analytics, maintaining that the transmissions of personal data made were a violation of its condition of use, promising that it would take action. Cambridge Analytics claimed to have respected Facebook rules, and assured that it did not keep or use personal data from users.

11. In 2017, the analyst company Piper Jaffray reported that Snapchat was the social network preferred by American teenagers, with 47% of them as users.
12. In a survey conducted by Raymond James, in 2018, 80% of Internet users in USA expressed concern about the way their personal data were used on Facebook. Another study conducted by Gallup, in April, found that 43% of Facebook users were very concerned about the invasion of privacy.

13. Clickbaiting is a practice that consists of publishing content with controversial, sensationalist and intriguing headline and images in social networks so that the user click on it. The user encounters unwanted or unrelated content, resulting in the disappointment of empty content promises.

14. Engagement Labs used surveys and monitoring of social networks, examining the correlations between social networks and offline discussions that surround 500 brands during a year. They discovered that there was only a poor correlation (close to zero) between online and offline conversation volume. The research maintains that online discussions and feeling are not necessarily predictive of offline Brand results. This company indicated that there is a clear distinction between brand conversations online and offline. Online social conversation is more visible and obvious than offline conversations face to face. Conversation in social networks is more feminine and younger, according to this company. There are also different motivations for each conversation. In some online cases, people are using brands to promote themselves, and offline conversations are more about empathy. There are also different categories of products that tend to be discussed online and offline. With these results, they concluded that social networks are a reliable predictor of a brand’s total performance. Therefore, marketing professionals should not rely solely on social networks to determine consumer thoughts about the brand.

15. It is important to point out that the figure We are social Hootsuite offers on the global penetration of the Internet (57%), rockets that handled by the Broadband Commission for Sustainable Development and the International Telecommunications Union (ITU). On December 2018, the ITU estimated that by the end of 2019, hardly 50 per cent of global population will have access to the Internet.

16. Singapore presented the highest speed (190.9 Mbps).

17. Canada is the country that registered the highest speed (63.1 Mbps), relegating Singapore to the second place (61.0 Mbps). It is important to highlight the importance that mobile broadband has in the growth of the gross domestic product of the countries (Cruz, 2018), (ITU, 2018).

18. According to We are social-Hootsuite, the main axes of Internet development in 2019 will be: the evolution of voice-based search systems; augmented reality in platforms aimed at “social immersion”; advances in the democratization of data –user will take better care of their information; collective artificial intelligence, the capacity of automatic learning to find solutions to the needs of institutions.

19. With respect to the total number of Internet users, the We are social-Hootsuite study refers to the estimated totals in some of the main studies, of which significant differences can be noted. The Internet World Stats, for instance, estimated 13,480,000. The International
Telecommunications Union reported 9,730,000 – similar figure to that handled by the World Bank. The CIA reports a lower figure: 6,690,000.

20. Henry Jenkins, who directs the educational project New Media Literacy, associates this participation with new ways of literacy. Jenkins warns that a person is not literate if he only knows how to read, but not write. Similarly, the person who uses but produces nothing cannot be considered literate. Educational institutions have to train young people in the use of these technologies in a creative, efficient and responsible way. On the other hand, teachers must recognize the possibilities and risks related to these new forms of expression. Thus, for the researchers, literacy is a social and collective practice, and not an individual process of learning. One must learn to collaborate and exchange knowledge with others. These skills emerge from new social, cultural and educational opportunities, born around social networks.

21. In 2016, Pew Research Center reported that Facebook was the social network American Internet users used mainly to inform themselves, noting that 44% of Facebook users used news on the social network. However, only 9% of Twitter users used it with the intention of being informed. On the other hand, only 4% of Instagram and LinkedIn users search for news on these social networks, while on Snapchat only 2% do so.

22. The author refers to the relationship or link created between the receiver and the protagonists of the mass media (especially television), where links of affection and friendship are established (for instance, fan clubs), although it is most likely that there will never be a direct contact between them.

7. References


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