

NEEDS IN THE ONLINE ENVIRONMENT OF THE 21st CENTURY

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ABSTRACT

The last decades of the evolution of mankind have undergone spectacular changes in technological progress; the age in which we live is paradoxical, tumultuous, a world of informational abundance, subject to continuous change. With this evolution, threats, risks and vulnerabilities have gained new registers of understanding and manifestation. These changes in the methods of achieving the goal, specific to the 21st century, make it necessary to know and understand the new needs, how to manifest them in the online environment and the risks arising from satisfying them. Changes in the technological sphere have also led to behavioral changes. Humans behave differently in different environments, and the online environment offers unlimited possibilities with effects that we still cannot fully interpret. The social networks initially aimed to create an optimal environment in which people have the chance to be connected, to share ideas, thoughts, experiences, and memories. The purpose of this article is to highlight both the naivety of people when they work in the online environment, how this naivety can be used to obtain certain results at a strategic level, as well as the effects / impact that our actions in the online environment can have.

KEYWORDS: cyberpsychology, online environment, needs, vulnerabilities, social networks

1. Introduction

The technological evolution outlines, in addition to advantages, a new category of disadvantages and new challenges in the field of security. The dramatic changes in technological progress, the ubiquity of digital technologies, the increasing importance of digital platforms, the speed at which information is transmitted, the algorithms of personal life, the power to change and direct public opinion, are just some of the characteristics of the 21st century.

With this evolution, the threats, risks and vulnerabilities of each nation have acquired new registers of understanding and manifestation. In this context, knowing the specific needs of the 21st century, needs that can be exploited as vulnerabilities, is a first

step in understanding the resulting risks and security threats.

Real-world events influence people's behavior in the virtual environment, a relationship that has a two-way character. Cyberpsychology or online environment psychology is the study of the impact of new technologies on human behavior (Aiken, 2019). This science plays a pivotal role in being able to prevent crisis situations within a population.

Technology can be found in many aspects of our lives, from the relationships we have to the choices we make when selecting a food product, from the political systems we trust to how we decide to educate our children. The Internet, social networks, technological progress are key

factors in the daily life (Topor, 2008). Knowing the reasons why we behave as we do in the online environment is an elementary step in the quest to improve risk mitigation. It is also necessary to understand the effects that our actions in the online environment can have and how our digital needs can be used as a vulnerability.

2. Establishing the Context

The Internet has become ubiquitous, it helps the user with answers, challenges, exciting ideas, etc. Between 2015-2018, the number of people with Internet access increased almost six times – from 6.5 % to

43 % of the global population (Ortiz-Ospina, 2019).

The Internet originated in a project funded by the US military about 50 years ago, a project called ARPANET. Since then, the Internet has suffered more than just a name change. The number of devices connected to the Internet has grown exponentially, while the number of users has grown from a small group of computer scientists to over 3.5 billion consumers. The network coverage area has expanded beyond the United States to every corner of the globe.

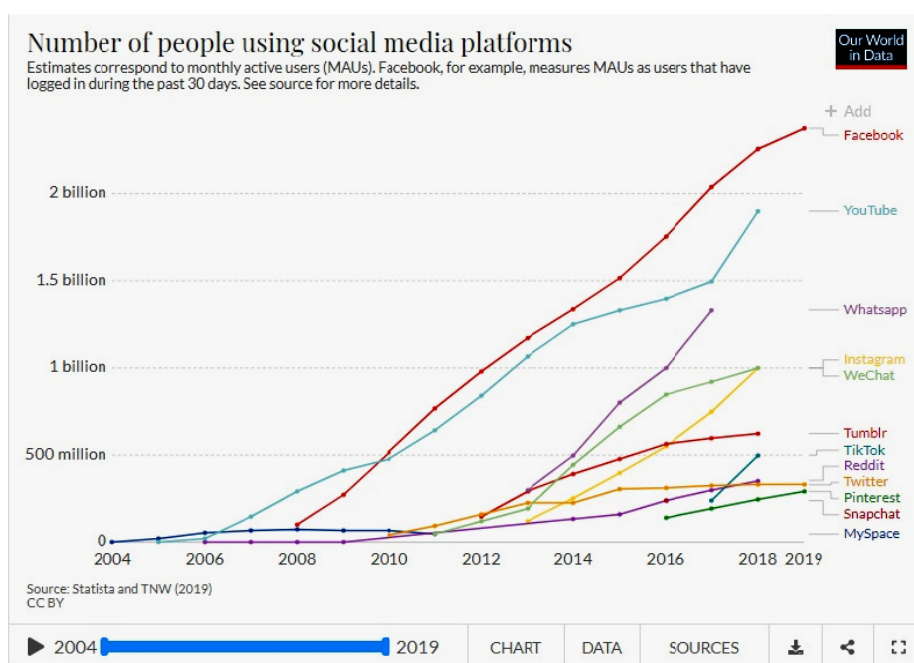


Figure no. 1: *Number digital platforms users*
 (Source: Ortiz-Ospina, 2019)

In the Figure above you can see a substantial increase in the number of users of digital platforms between 2004-2019. The presence of social media has led to imminent changes that have affected a very large percentage of the world's population. The rapid and widespread adoption of these technologies changes the way we find partners, how we access news and how we organize ourselves to demand political change.

The first social media site that reached one million monthly active users was MySpace – it reached this stage around 2004. This can be considered the beginning of the social media phenomenon as we know it.

In 2004, Mark Zuckerberg launched Facebook, which has continued to become a social media giant. In 2006, the popularity of SMS and text messages inspired Jack Dorsey, Biz Stone, Noah Glass and Evan

Williams to create Twitter. Instagram was launched in 2010 for iOS users and in 2012 for Android users. Today, it is one of the most important social networking sites for photo sharing. Today, almost all brands are present on social media and it is unusual when you encounter a business that does not have a strong presence on one of the platforms. Since 2017, there are thousands

of social media platforms. Some platforms are more popular than others, but each platform has a loyal audience.

TikTok, for example, was launched in September 2016 and reached half a billion users by mid-2018. To put this in perspective: TikTok has gained an average of about 20 million new users per month during this period.

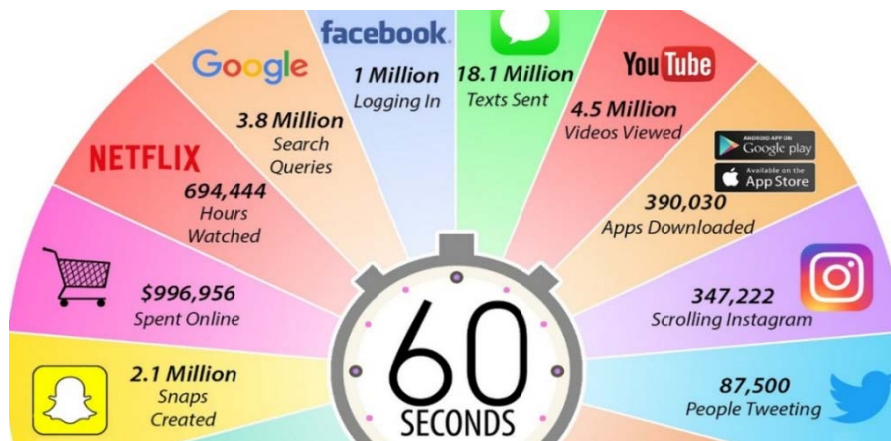


Figure no. 2: *Number of hits within 60 seconds*
(Source: Mitroi, 2018)

In Figure no. 2 you can see the number of hits on different networks over a period of 60 seconds. Young people tend to use social media more and more often. In fact, in high-income countries, where Internet access is almost universal, most young adults use it.

The percentage of US adults using social media has increased from 5 % in 2005 to 79 % in 2019 (Clement, 2019). Even on a global stage, the speed of dissemination is striking: Facebook has grown from covering about 1.5 % of the world's population in 2008, to about 30 % in 2018 (Bondcap report, 2018).

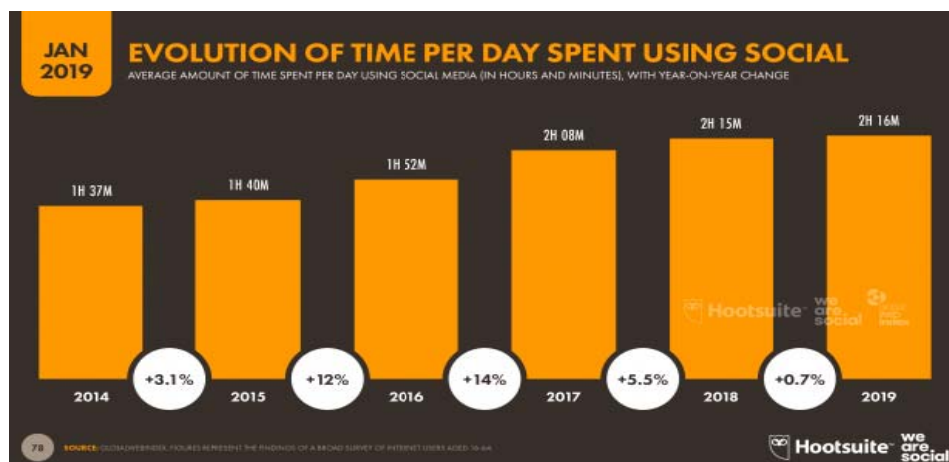


Figure no. 3: *The evolution of time spent on social networks*
(Source: Kemp, 2020)

Also, the number of hours spent on social media has increased significantly since 2014 (Kemp, 2020). People are spending more time connected to the virtual world than they are spending with family and friends. The modern person prefers the online environment over the real environment – this reality explains the transfer of certain aspects of real life into the digital environment.

3. The Needs of the Current Century

Starting from the realities presented earlier, I will continue to highlight the evolution of needs in the context of the emergence of new technologies and the use of the Internet. To accomplish this I will use Abraham Maslow's Pyramid as a starting point. His concept identifies five specific types of needs, each category being represented at a certain level within the pyramid depending on its importance:

1. The physiological needs, the need for food, water, shelter;
2. Needs related to personal safety, security;
3. Social needs, belonging;
4. The need for social recognition, self-confidence, self-respect;
5. The need for personal development, self-realization.

These needs are found almost entirely in the online environment in one form or another: from needs related to personal safety, to social needs, belonging, social recognition, personal development and self-fulfillment. For example, anonymity in the online environment offers a sense of security to some extent. Participation in group activities or in the decision-making process within a game can provide a sense of belonging. Receiving a like or comment on a particular photo posted or shared information can function as social recognition.

Whether it is social and psychological needs, cognitive needs, affective needs,

consolidation needs, belonging, confirmation, identity, the need for integration (social pressure), the need for validation, the need for attention, emotional needs, all these can be found in the online environment, which also ensures the possibility of their satisfaction. Cyberpsychology also explains how these needs are met in the digital environment.

The 21st century is highlighted by the need for presence in the digital environment, a dependence on social networks, the need for appreciation in the online environment (likes, distributions, followers, number of views, etc.). We want the sensational, we are in constant search for anything that could highlight us. The permanent pursuit of people to get what they want and to meet their needs in the online environment, lacking knowledge and control mechanisms, can lead to the loss of certain critical details and can be damaging at a strategic level.

Each behavior in the digital environment functions as a trigger for emotions, influencing decision-making processes and actions in real life, changes that in turn cause other emotional reactions that continue to produce changes back in the digital environment.

One of the specificities is the *active audience* that contributes to digital amplification through:

– Bots, bot networks (*A botnet represents a network of infected computers – through exploitation of vulnerabilities or through social engineering – with a malware application that allows cybercriminals to remotely control them, without the right owners being aware of it*) (Strătuțat, 2019);

- Fake accounts;
- Like farms;
- Fake writers;
- Fake followers;
- Fake influencers;
- Fake crowds.

Our whole digital behavior is a factor of amplifying the digital content; the user

enters the news / digital content distribution cycle through: *like, comment, share, react, tweet, retweet, friend, unfriend* etc.

The effect of online anonymity, at least the perceived anonymity, maintains a kind of disinheriting in the online environment that helps to satisfy the new set of needs. The new behavior is different from the behavior in everyday life and people don't seem to be aware of the effects of their actions. Innocence and superficial judgment help to form an amazing vulnerability that, combined with the right context, can have a significant impact.

The online environment is interactive, engaging, and captivating. Technology is an instrument of the 21st century that can be used both for good things and to create imbalances. In the absence of the information we receive in the real environment, facial expressions, body language, etc. we are less aware of the situations we are in and the decisions we make.

4. Selective Targeting – Cambridge Analytica

The *Cambridge Analytica (CA)* case study is a clear example to highlight the power and effects that selective targeting can have. This phenomenon is possible due to the intense activity in the online environment and the exposure of privacy. Selective targeting makes it possible to manipulate information at different levels (Topor, 2019).

Cambridge Analytica was a British company that provided services, among other things, to conduct election campaigns or support certain projects. The company has been in possession of the data of millions of people (*Facebook users*), data that they subsequently used to send messages that are appropriate to certain categories of audience. Basically, the CA specializes in creating user profiles (*psychological-behavioral profiles of consumers*) and in establishing the ways in which an individual can be influenced,

without realizing it, in choosing products or validating electoral candidates.

The company is considered to be involved in influencing certain behaviors in the United States (*voting for Donald Trump*), Great Britain (the *Brexit LeaveUE campaign*), Australia, India, Malta, Mexico, Argentina, Nigeria, Czech Republic, Philippines, etc.

The company later acknowledged that it used the personal data of the users (*data obtained from Facebook users filling out a questionnaire*) to segment the target audiences by using the psychological analysis, allowing a detailed knowledge of the audience. Analysts created 32 initial psychological profiles based on which they made specific messages to determine the perception of certain audience segments on different topics. The psychological mapping of the target audience and its segmentation into subcategories was made possible both by the unconsciousness of the users, as well as by the collection made by Facebook and the subsequent sale of data to the CA (Lyon & Bennett, 2019).

The quiz-type games *What Game of Thrones character are you, What dog breed fits you, How would you look if you were the opposite sex, What would your dream vacation look like, What is your most burning desire?*, came to have a resounding success and few know that by accessing them they make available their personal data that can later be used to create dedicated messages that can influence towards a certain type of behavior or perception.

Cyberpsychology explains how our needs in the digital environment are what underlie the digital behavior of users. By making available personal information, actions that seem harmless at first sight (games, questionnaires, posts, comments, locations, distributions, ratings, etc.), we actually make selective targeting possible. This involves the formation of messages dedicated to a particular person, created to

attract a certain type and to obtain a certain perception, attitude, and behavior. At the same time, segmentation, profiling, precision persuasion, algorithmic generation and amplification of reactions are possible only if those who want selective targeting have enough data to create dedicated messages.

5. Conclusions and Propositions

A first conclusion is that the current century has come with new challenges, evolutions, risks, threats, and vulnerabilities. In this new reality, the online environment and technology occupy important places. In this context, our behavior in the digital environment leaves traces, fingerprints, information about our own preferences, desires, sympathies, dislikes, which can later be used to influence future decisions (*see CA*). Cyberpsychology remains in this context the science that studies how the online environment has an impact on our personal lives and also explains why we behave as we do in the online environment.

From my point of view, it is very difficult to realize at every step why we do what we do or the effects that a particular action can have. But, based on some principles to guide our behavior, we have a higher chance of not reaching undesirable situations. In this direction, I propose the following steps in order to formulate a future strategy for neutralizing specific risks in the online environment:

- Regulations regarding the use of the data of the media users;
- Digital literacy;
- Emotional skepticism;
- Control of explicit digital behavior (a better knowledge of the consequences that our actions can have in the online environment);
- Cultivating a security culture adapted to the current realities and implemented among the population;

- Awareness programs for individuals / institutions with strategic positions, which are at a higher risk of being targeted by hostile entities;

- Investing in the education of the young generation;

- Media literacy (establishing the agreement between the title and text, checking authors and sources, consulting anti-fake news sites);

- Identification of vulnerabilities at the level of perception and attitudes of the population;

- Train critical thinking.

Absorbed by technology in a virtual, parallel world, we are actually becoming increasingly less caring about those who are really around us. The current technology offers multiple modes of apparent communication, actually spent in isolation.

Another conclusion concerns the effects of the lack of good information about the online environment and the how the impact that our actions can have in this environment can lead to strategic level effects (*see CA*). We navigate daily in an environment which we do not understand, but makes us feel valuable, important, and untouchable; these aspects describe the perfect environment in which to remain naive, unaware of the risks we take, vulnerable to the realities of the present century, and pawns used to fulfill strategic objectives.

A general conclusion is that the online environment, although initially perceived as an environment with fewer risks and threats than the real environment, has become the appropriate place for manifesting various threats. Our needs in the digital environment can be exploited and used to guide our behavior and decisions (*see CA*).

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