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SOCIAL WEB: A SOCIOLOGICAL ANALYSIS ON HEALTH IMPACT OF SOCIAL NETWORKING

Dr. Ziya A. Pathan

Associate Professor
Dept. of Sociology and social work
University of Eswatini, Southern Africa

ABSTRACT

The social web is a set of social relations that link people through the World Wide Web. The present research is conducted using mixed research design i.e,., descriptive and analytical methods with an objective to *study the effects of social web on communication and health, identifying the* risks associated such as addiction, cyberbullying, depression, and social isolation which can be helpful to the researchers as well as policy makers promoting healthy use of social web and networking. It reveals the positive as well as negative impact of social networking in which the positive impacts are enhanced information and career advancement whereas the negative impacts limits face to face contacts, cyber bullying and social media addiction. The prominent finding of the study is impact of social web on user's health like depression due to feelings of inadequacy, jealousy and low esteem, sleeplessness alongwith anxiety and weak eyesight. The study also exhibits Withdrawal syndromes of social web and intervention.

Key Words: Social web – health - cyber bullying - social media - communication

1 Introduction

Social web has a significant impact on communication, changing the way people connects and interacts with each other. Social web has increased a lot in the past decades, there has been a rise in social networks such as Facebook, X (formerly Twitter), WhatsApp, Tiktok, Snapchat and Instagram etc., which has made it easier for people to connect with others, share information and ideas, keep in touch with friends and family. In a way it has given rise to new forms of social networking such as messaging apps and video conferencing tools etc.

The term "social Web" was coined by *Howard Rheingold* (2000) for this network in 1996; Rheingold was quoted in an article for *Time* by Quittner, Joshua (1996-11-25) on his website "Electric Minds", described as a "virtual community center" that listed online communities for users interested in socializing through the Web, saying that, "The idea is that we will lead the transformation of the Web into a social Web".

The **social web** is a set of social relations that link people through the World Wide Web. The social web encompasses how websites and software are designed and developed in order to support and foster social interaction. These online social interactions form the basis of much online activity including online shopping, education, gaming and social networking services.

2. Research objectives

- 1. To determine the effect of using social web on face-to-face communication and social interaction.
- 2. To analyse the health effects of social web.
- 3. To describe the effectiveness of intervention aimed at promoting safe and responsible social web use.

3. Significance of the study

Social web makes human interaction much more convenient than real life human interaction, for instance it gives an opportunity for introvert people to express themselves and to benefit and develop international relationships. Platforms such as Facebook, Instagram, WhatsApp and snapchat make communication an easier task. Social media has various impacts like, cyber bullying, easy access into people's personal lives and information etc., Cyber bullying is extremely common, it happens to many young children and adults, especially those who are part of the LGBT community.

Identifying the potential risks associated with excessive social networking such as addiction, cyberbullying, depression, and social isolation can be helpful to the researchers as well as policy makers to make further studies and to develop strategies to mitigate the risks and promote healthy use of social web and social networking.

4. Scope and limitation of the study

When it comes to the scope, understanding how social networking impacts social interaction and communication is crucial due to the widespread adaptation of *Instagram, WhatsApp, and Facebook*. The present study is limited to researching various aspects of social web on phases of an individual's life, which is limited to social media users of Manzini town in Eswatini.

5. Review of Literature

In a study (Haiqa Fayaz, 2016) entitled, "A review on sociological impacts of social networking" the evolution of networking and social networking has altered the way in which people interact in the real world. There has been a great impact of these modern technologies on the basic structure, psychological aspects, sociological aspects, behavior and nature of human personality. Social networking impacts on various domains of society with its advantages and disadvantages which also reflects the gender gap in usage of social networking sites by people of different age group.

According to (Subramanian, 2017) one big concern surrounding social media impact is communication overload. Teens are pulling away from social media sites such as facebook and Instagram because it is just too much for them to handle and lack privacy and it is likely to share on social media the sort of information one might have previously shared face-to-face. The article by (Subramanian, 2017), further states the negativity surrounding social media is countered by positive influences which includes, the ability to communicate with people across greater distances with an increased speed.

A research conducted (Brien, 2020) in "A qualitartive study exploring teacher perceptions of the impact of social media usage on middle level learners", about the teacher perceptions of the impacts of social media usage on middle level learners, using individual interviews and focus groups to understand students' views exhibits, that middle level learners lacking self-esteem as they tend to compare themselves with others via social media platforms. From the teacher's perspectives, decline in students' self-esteem and self-worth was mostly felt on the students using social media.

Bert Gambini (2022) in "Social media use tied to poor physical health", extends that, social media use has been linked to biological and psychological indicators associated with poor physical health among college students. Research participants who used excessive social media were found to have higher levels of C-reactive protein (CRP), a biological marker of chronic inflammation that predicts serious illnesses, such as diabetes, certain cancers and cardiovascular disease. In addition to elevated CRP levels, results suggest higher social media use was also related to somatic symptoms, like headaches, chest and back pains, and more frequent visits to doctors and health centers for the treatment of illness.

Agnes Zsila & Marc Eric S. Reyes (2023), "Pros & cons: impacts of social media on mental health". The use of social media significantly impacts mental health. It can enhance connection, increase self-esteem, and improve a sense of belonging. But it can also lead to tremendous stress, pressure to compare oneself to others, and increased sadness and isolation. Mindful use is essential to social media consumption

6. Locale of the Study

Eswatini formally named as Swaziland is a landlocked country in Southern Africa. It is bordered by Mozambique to its northeast and South Africa to its north, west, south, and southeast, Eswatini is one of the smallest countries in Africa; despite this, its climate and topography are diverse, ranging from a cool and mountainous highveld to a hot and dry lowveld. As per United Nations (2024), the current population of Eswatini is 1,219,752, which is equivalent to 0.02 % of the world's population with a density of 70 per km² in a land area of 17, 200 km² comprising 30.9 % of the urban population.

The Swazis established their kingdom in the mid-18th century under the leadership of Ngwane III, the kingdom, under the name of Swaziland, was a British high commission territory from 1903 until it regained its full independence on 6 September 1968. The government is an absolute monarchy, and is been ruled by King Mswati III since 1986. Elections are held every five years to determine the House of Assembly and the Senate majority. Eswatini is a member of the Southern African Development Community, the African Union, the Commonwealth of Nations, and the United Nations.

7. Research Methodology

The present research is an attempt to assess and highlight the growing effects of social web on social interaction and health perspectives. A descriptive and analytical method are applied with an aim to identify characteristics, frequencies, trends, and categories of the effects of social web in general and social networking in particular on various aspects of human life.

Mixed approach is used to understand the effects of social web on health and social interaction. Qualitative research involves gathering data through interviews and observations whereas quantitative research involves gathering data through surveys and numerical methods. A sample of 32 respondents which includes equal proportion of male and female is drawn from Manzini town in Eswatini, by applying purposive sampling method where youths above 18 years of age are interviewed as they have an easy access to smart phones, internet services and social networking sites.

According to (Kuma, 2023) the method of data presentation refers to how the research findings are communicated to the audience. This includes tables, graphs, charts, and written reports. The choice of method depends on the nature of the data and the audience's needs. In this research study, data is presented using frequency tables and charts using SPSS 25.0 whereas qualitative data is analysed using content analysis.

8. Data Analysing and Interpretation

Part I: Profile of the respondents

Table No. 1

| Age-wise distribution of the respondents | | | | | |
|--|----------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 18 to 25 | 12 | 37.5 | 37.5 | 37.5 |
| | 25 to 30 | 11 | 34.4 | 34.4 | 71.9 |
| | 30 to 35 | 04 | 12.5 | 12.5 | 84.4 |
| | 35 to 40 | 05 | 15.6 | 15.6 | 100.0 |
| | Total | 32 | 100.0 | 100.0 | |

Source: Field survey, 2023-24

Table No. 1, exhibits the age-wise distribution of the respondent, here out of 32 respondents 37.5 percent of them are in the age group of 18 to 25 years, 34.4 percent are 25 to 30 years old, in addition 12.5 percent are in the age category of 30 to 35 years and remaining 15.6 percent fall in the age group of 35 to 40 years. On the basis of the above table it can be deduced that a majority of the respondents are either in the age group of 18 to 25 years or 25 to 30 years of age.

Table No. 2

| Educational attainment of the respondents | | | | | | |
|---|-----------------|-----------|---------|---------------|--------------------|--|
| | | Frequency | Percent | Valid Percent | Cumulative Percent | |
| Valid | Primary level | 01 | 03.1 | 03.1 | 03.1 | |
| | Secondary level | 05 | 15.6 | 15.6 | 18.8 | |
| | Intermediate | 11 | 34.4 | 34.4 | 53.1 | |
| | Graduation | 12 | 37.5 | 37.5 | 90.6 | |
| | Post-graduation | 03 | 09.4 | 09.4 | 100.0 | |
| | Total | 32 | 100.0 | 100.0 | | |

Source: Field survey, 2023-24

The level of education necessitates social web and networking. The above table reflects the educational attainment of the respondents, out of the total respondents 3 percent of them fall under the primary level, 15.6 percent of them have a secondary level, 34.4 percent are intermediates. In addition, 37.5 percent of the respondents belong to those who are graduates and the remaining 9.4 percent of the respondents are postgraduates.

It indicates that most of the respondents are either intermediate or graduates as compared to other level of educational attainment.

Table No. 3

| Occupation-wise distribution of the respondents | | | | | |
|---|---------------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Student | 15 | 46.9 | 46.9 | 46.9 |
| | Self employed | 08 | 25.0 | 25.0 | 71.9 |
| | Business | 02 | 6.3 | 06.3 | 78.1 |
| | Professional | 04 | 12.5 | 12.5 | 90.6 |
| | Unemployed | 03 | 09.4 | 09.4 | 100.0 |
| | Total | 32 | 100.0 | 100.0 | |

Source: Field survey, 2023-24

Table No.3 exhibits occupational status of the respondents, which says, 32 respondents, 46.9 percent of them are students, 25 percent are self-employed, 6.25 percent in the business sector, 12.5 percent are professional and remaining 9.38 percent of them fall under unemployed category, which reflects that most of the respondents are either students or self-employed.

Part II: Social Web

Table No. 4

| Use of Social Web by the respondents | | | | | |
|--------------------------------------|-------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Yes | 29 | 90.6 | 90.6 | 90.6 |
| | No | 03 | 09.4 | 09.4 | 100.0 |
| | Total | 32 | 100.0 | 100.0 | |

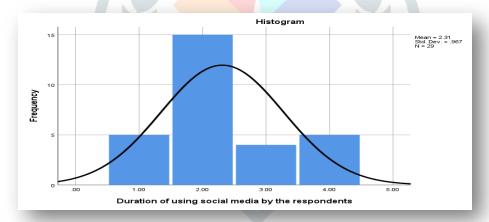
Source: Field survey, 2023-24

Table (4) displays the results of respondents when asked if they use social web. Out of 32 respondents, 97 percent of them responded in affirmative whereas remaining 3 percent respondents countered not using social media and social networking.

Table No. 4 (a)

| Duration of using social web | | | | | | | |
|------------------------------|-------------------|-----------|---------|---------------|--------------------|--|--|
| | | Frequency | Percent | Valid Percent | Cumulative Percent | | |
| Valid | 1 to 2 hours | 05 | 15.6 | 17.2 | 17.20 | | |
| | 2 to 5 hours | 15 | 46.9 | 51.7 | 69.00 | | |
| | 5 to 8 hours | 04 | 12.5 | 13.8 | 82.80 | | |
| | More than 8 hours | 05 | 15.6 | 17.2 | 100.0 | | |
| | Total | 29 | 90.6 | 100.0 | | | |
| Missing | System | 03 | 09.4 | | | | |
| Total | | 32 | 100.0 | | | | |

Source: Field survey, 2023-24



Social networkers are more obsessed with checking their smart phones every two minutes than engaging in meaningful conversation with their dear ones. It has also affected one's way of communication and writing techniques.

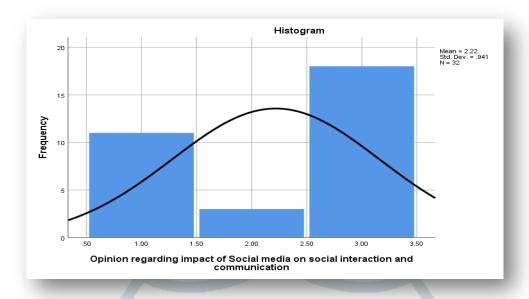
Table No. 4 revealed that, 4, 90.6 percent of the respondent use social web in their day to day life, here in the Table No.4(a) it is further inquired about the duration of using social web on daily basis. About 17.24 percent of the respondents use social networking for only 1 to 2 hours, 51.72 percent use for 2 to 5 hours, 13.79 percent of the respondents use it for 5 to 8 hours and remaining 17.24 percent of them use social networks for more than 8 hours.

It can be concluded that majority of the respondents use social web for 2 to 5 hours.

Table No. 5

| Opinio | Opinion regarding impact of social media on social interaction and communication | | | | | |
|--------|--|----|-------|-------|-------|--|
| | Frequency Percent Valid Percent Cumulative Perc | | | | | |
| Valid | Positive impact | 11 | 34.4 | 34.4 | 34.4 | |
| | Negative impact | 03 | 09.4 | 09.4 | 43.8 | |
| | Neutral | 18 | 56.3 | 56.3 | 100.0 | |
| | Total | 32 | 100.0 | 100.0 | | |

Source: Field survey, 2023-24



The above table indicates that 34.4 percent out of 32 respondents felt that social media has a positive impact on social interaction and communication, 9.4 percent of the respondents stated that stated social media has a negative impact on social interaction and communication and the last 56.3 percent of respondents thought that social media had a neutral effect on social interaction and communication.

Table No. 5. (a)
Aspects of positive impact

N = 11

| Sl.No. | Aspects | Frequency | Percentage |
|--------|---|-----------|------------|
| 1 | Develops social contacts | 03 | 27.30 |
| 2 | Increase IQ level | 04 | 36.40 |
| 3 | Worldwide Interaction with people | 06 | 18.80 |
| 4 | Foster new relationship & strengthening existing ones | 04 | 36.40 |
| 5 | Enhanced information | 07 | 63.60 |
| 6 | Career advancement | 06 | 54.50 |
| 7 | Shapes interpersonal relationships | 04 | 36.40 |

Source: Field survey, 2023-24

The above Table No.5 (a) illustrates, out of 32 respondents 27.30 percent of them stated that social media has a positive impact in developing social contacts, 36.4 percent stated that it increases IQ level, 18.8 percent of them stated that it leads to worldwide interaction with people, 36.4 percent of them felt it fosters new relationship and strengthens existing ones, 63.6 percent supports social media leads to enhanced information, 54.5 percent believed it leads to career advancement and the last 36.4 percent of them shapes interpersonal relationships.

Many of the respondents stated that social web's positive impact is that it leads to enhanced information, followed by career advancement and worldwide interaction with people. This is because people can easily get in contact with the people they come across on social media channels.

Table No. 5 (b) **Aspects of negative impact**

N = 03

| Sl.No. | Aspects | No. of Respondents | Percentage |
|--------|------------------------------|--------------------|------------|
| 1 | Waste of time | 02 | 66.7 |
| 2 | Waste of money | 02 | 66.7 |
| 3 | Limits face to face contacts | 03 | 100 |
| 4 | Cyber bullying | 03 | 100 |
| 5 | Addiction | 03 | 100 |
| 6 | Promotes laziness | 01 | 33.0 |

Source: Field survey, 2023-24

Table No. 5 (b) shows the distribution of the negative aspects of social media on social interaction and communication. 66.7 percent of the respondents said that social media is a waste of time and waste of money, 100 percent supports that it limits face to face contacts with relatives and friends, cyberbullying and addiction and 33 percent of respondent believes that it promotes laziness.

This indicates that most of the respondents felt that social media has negative impacts like limiting face to face contacts with relatives and friends, encourages cyber bullying and social media addiction.

Table No. 6 **Opinion regarding roles of social web**

N = 30

| Sl.No. | Opinions | No. of Respondents | Percentage |
|--------|--|--------------------|------------|
| 1 | Communication more instant and accessible, allowing people to connect worldwide. | 21 | 70 |
| 2 | Introduced new forms of communication, such as emojis and memes, conveying emotions and ideas visually and concise way | 09 | 30 |
| 3 | Created new challenges of privacy and security, as people share sensitive information or be vulnerable to online harassment or cyberbullying | 12 | 40 |

Source: Field survey, 2023-24

Table No. 6 displays that 70 percent of the respondents felt that social media has made communication more instant and accessible, allowing people to connect with each other from anywhere in the world at any time, 30 percent of the respondents suggests that social media has introduced new forms of communication, such as emojis and memes, in which they convey emotions and ideas in a more concise and visual way and 40 percent felt that social media has created new challenges of privacy and security, as people may share sensitive information or be vulnerable to online harassment or cyberbullying.

As, majority of the respondents i.e., 70 percent of them supports the view that, social media has made communication more instant and accessible, allowing people to connect with each other from anywhere in the world at any time.

Table No. 7

| Effect of intervention aimed at promoting safe and responsible social media | | | | | |
|---|-------|----|-------|-------|--------------------|
| Frequency Percent Valid Percent Cumulative Percent | | | | | Cumulative Percent |
| Valid | Yes | 21 | 65.6 | 65.6 | 65.6 |
| | No | 11 | 34.4 | 34.4 | 100.0 |
| | Total | 32 | 100.0 | 100.0 | |

Source: Field survey, 2023-24

The above table indicates that 65.6 percent of 32 respondents are in the favour of the view that, intervention aimed at promoting safe and responsible social media use is effective whereas 36.7 of the participants indicate that they do not recognize the effectiveness of intervention aimed at promoting safe and responsible social media use.

This indicates that a majority of the respondents recognize the effectiveness of intervention aimed at promoting safe and responsible social web use.

Table No. 8

| Opinion regarding impact of social web on user's health | | | | | | |
|---|-------|----|-------|-------|-------|--|
| Frequency Percent Valid Percent Cumulative Percent | | | | | | |
| | Yes | 25 | 78.1 | 78.1 | 78.1 | |
| Valid | No | 07 | 21.9 | 21.9 | 100.0 | |
| | Total | 32 | 100.0 | 100.0 | | |

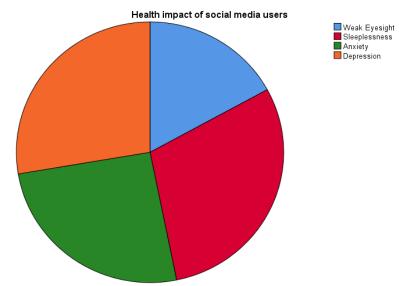
Source: Field survey, 2023-24

According to information gathered, 78.1 percent of respondents believe social media has an impact on user's health. This suggests that social media is a widely accepted factor affecting health. However, it is important to note that correlation does not necessarily imply causation. Further research is needed to determine the specific ways in which social media use can impact health.

Table No. 9 N = 25

| Impact of Social media on user's health | | | | | |
|---|---------------|-----------|---------|--|--|
| | | Frequency | Percent | | |
| | Weak eyesight | 08 | 32 | | |
| Valid | Sleeplessness | 14 | 56 | | |
| | Anxiety | 11 | 44 | | |
| | Depression | 13 | 52 | | |

Source: Field survey, 2023-24



The above table shows a frequency distribution table for the way in which social media impacts the health of users. Out of 25 respondents, 32 percent of them state that social media leads to weak eyesight, 56 percent state that it leads to sleeplessness, 44 percent state that it leads to anxiety and 52 percent expressed it leads to depression.

Social media leads to depression by that there is social comparison whereby people often compare themselves to others on social media which then leads to feelings inadequacy, jealousy and low esteem.

Table No. 10

| Efforts to distance social media | | | | | | | |
|----------------------------------|-------|-----------|---------|---------------|--------------------|--|--|
| | | Frequency | Percent | Valid Percent | Cumulative Percent | | |
| Valid | Yes | 12 | 37.5 | 37.5 | 37.5 | | |
| | No | 20 | 62.5 | 62.5 | 100.0 | | |
| | Total | 32 | 100.0 | 100.0 | | | |

Source: Field survey, 2023-24

As shown in Table No.10. out of 32 respondents 37.5 percent have tried to distance themselves from social media and 62.5 percent haven't tried to distance themselves from social web. It is realised that, majority of the social web users give much impetus to social media and are not willing to distance them from social networking.

Withdrawal syndromes of distancing from social media

- 1) Boredom
- 2) Loneliness
- 3) Depression
- 4) Being sleep deprives
- 5) Feeling of missing out

Table No. 11

| Recent experience of cyber bullying by the respondents | | | | | |
|--|-------|----|------|--|--|
| 1 | Yes | 09 | 28.1 | | |
| 2 | No | 23 | 71.9 | | |
| | Total | 32 | 100 | | |

Source: Field survey, 2023-24

The above table illustrates whether the respondents have experienced cyberbullying recently, 28.1 percent of them stated that they have not experienced cyberbullying and 71.9 percent of them have experienced cyber bullying. The number of people who have not experienced cyberbullying is high because of measures that have been put in place to promote safe media use.

9. Opinion regarding cyber bullying

On the basis of face to face interview it was observed that, the respondents believe cyberbullying as a serious issue that can have harmful effect on individuals, especially young people. It can cause depression and even lead to self-harm or suicide in extreme cases. It also involves the use of technology to target individuals with harmful messages, or videos. Cyber bullying also leads to spreading rumours, sharing private information without consent and creating fake accounts to impersonate someone. Cyberbullying occurs anonymously, making it difficult for victims to identify the perpetrator and seek help, it also has a long lasting impact on a person's reputation and social relationship affecting their self-esteem and confidence.

10. Conclusion and recommendation

"Parents' frequency of electronics use can set the tone for what is permissible to their children. If you want your children to put their phones down at dinner, that will be more likely to happen if you do the same"

- Dr. Jacqueline Sperling

Social networks help the businesses in a variety of ways. Traditional marketing mediums such as the radio, TV commercials and print ads are completely obsolete now and expensive, however with social media the businesses can connect with their targeted customers for free, the only cost is energy and time. These social networking sites have opened the opportunity for all writers and bloggers to connect with their tech savvy clients to share their expertise and articles. Social web has removed all the communication and interaction barriers, and now one can communicate his/her perception over a variety of topics.

PREVENTIVE MEASURES TO REDUCE THE NEGATIVE IMPACT OF SOCIAL WEB USE

In order to reduce the negative impacts of social web on health and social interaction a number of preventive measures can be taken at individual level, such as;

- Limit screen time: Set limit on time spent on social web each day. Designate specific times for checking your accounts and avoid mindless scrolling through feeds.
- Engage in face-to-face interaction: Prioritize in-person interaction with friends, family, and colleagues. Avail yourself for social gatherings, outings and activities that promote face-to-face communication.
- Mindful social media use: Practice mindful use of social web specially the content you consume and share on social media. Avoid comparing yourself to others and be cautious about the triggering content leading to negative impact on your mental health.
- Balance online and offline activities: Find a balance between your offline and online activities. Engage in hobbies, sports, or creative pursuits that allow you to disconnect from social networking and focussing on real experiences.

References

- Bourdieu, P. (1986). Distinction: A social critique of the judgement of taste: (2 ed.). London: Taylor & Francis group.
- Brien, M. L. (2020). A qualitartive study exploring teacher perceptions of the impact of social media usage on middle level learners, 62-78.
- Davis, K. (2013). young peoples digital lives: the impact of interpersonal relationships and digital use media on adolescents sense of identity. *computers in human behavior*, 2281-2293.
- Evans, A. C. (2023). communication (meaning, concept and process). New York: study.com.
- Graunke, S. (2019). using qualitative sampling to your advantage. *Institution Research and Assessment*, 5.
- Haiqa Fayaz, "A review on sociological impacts of social networking", International Journal of Engineering Applied Sciences and Technology, 2016 Vol. 1, Issue 12, ISSN No. 2455-2143, Pages 6-12
- Hargreaves, D. H. (1972). interpersonal relations and education. London and Boston: Routledge & Kegan Paul.
- Jean Burgess, Alice Marwick and Thomas Poell. (2017). social media and society. Queensland: Sage publications.
- Kuma, M. (2023). presentation methods of statistical data/ statistics/psychology. *Psychology discussion*, 4-6.
- Little, W. (2016). *Introduction to socilogy -22nd Canadian Edition*. Minnesota: BCcampus .
- Louise Barnsbee, Son Nghiem, Adrian G. Barnett, Kate Halton. (2018). target population. *mechanical circulatory and respiratory*, 749-722.
- Martin, R. M. (2015). sociolobiology and sociology: a new synthesis. *international Encyclopedia of the social and behavioral sciences*, 5(2), 50-62.

- McCombas, S. (2023). descriptive research defination, types, methods & examples. Scribbr, 1.
- McCombes, S. (2019). sampling methods/types, techniques and examples. Scribbr, 2.
- Nickerson, C. (2023). symbolic interactionism theory. *psychology of science*, 89-110.
- Nicole B Ellison, C. S. (2007). The benefits of facebook "friends" social capital capital and college students' use of online social network sites. *journal of computer-mediated communication*, 12(4), 115.
- Quinones, R. (2010). integral leade. Integral Leadership Review, 5.
- Quittner, Joshua. "Mr. Rheingold's Neighborhood". Time. Archived from the original on March 5, 2007. Retrieved 7
 June 2011.
- Rheingold, Howard (2000). The virtual community: homesteading on the electronic frontier. The MIT Press. p. 334. ISBN 9780262261104.
- Schultze, A. (2009). what is social media? . New York: Econsultancy.
- Subramanian, D. K. (2017). influence of social media in interpersonal communication. *international journal of scientific progress and research*, volume 38.
- UN (2024). Department of economic and social affairs, population division, world population prospects, the 2022 revision (updated July 2024)
- Zsila, Á., Reyes, M.E.S. Pros & cons: impacts of social media on mental health. *BMC Psychol* **11**, 201 (2023). https://doi.org/10.1186/s40359-023-01243-x

