

Using Data Analytics to Understand Impact of Social Media Usage on Self-Esteem & Identity: A Research Survey

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Abstract

None of us are untouched by social media these days. The impact of social media usage depends on the consumption patterns. Young minds have higher tendency for social media usage and this may impact self-esteem and identity. Impact on self-esteem and personal identity, as a result of certain actions, is measured on one or all of the variables e.g. Comparison Propensity i.e. likelihood for comparisons, tendency for negative thoughts, feeling pressurised to follow the trends and effect on self-identity. By a detailed analysis of data captured through a detailed questionnaire, we could uncover the impact of social media usage on self-esteem and identity. A strong positive correlation between number of hours spent and following of trends portrayed on social media. Tendency to adopt the trends is highest amongst age group of 12-15 years and 16-19 years. A moderate correlation between the hours spent and tendency to compare themselves to others is seen. Tendency to compare is high amongst all users with age group of 12-15 being most affected. A strong negative correlation between hours spent and negative thoughts means that social media usage may create positive vibes as well. Moreover frequency analysis suggests that negative thoughts are more prevalent amongst the age group 16-19 years. Lastly while lower correlation is observed between number of hours spent and impact on identity, frequency analysis suggests that lower age group of 12-15 years and 16-19 years report higher impact on identity. This study because of reasons of convenience sampling issues and lack of ability to check integrity of responses may have limitations. But this offers great view into what is going into the minds of young users of social media.

Keywords: Data Analytics, Social Media, Self-Esteem

Introduction

The social media emerged in the early 21st century and since then, it has played a key role in everyone's life. Social media has allowed people to be connected to one another across different continents and communicate their ideas. Social media helped turn the world into a large village and has removed geographical boundaries both digitally as well as in thoughts. While it helps us to keep ourselves updated, social media is also used to fill up our spare time by posting personal updates and information like pictures, etc. online.

Aim

Many of us believe that the excessive usage of social media has an impact on mental health e.g. self-esteem and personal identity. This research article is an attempt to understand and uncover the relationship between social media usage and the self-esteem/identity of the young people. This article attempts to study how different perspectives of identity of young people get altered with the usage patterns (i.e. frequency, content, or other parameters) of social media.

Hypothesis

High consumption of social media by young people causes an impact on self-esteem and personal identity. Impact on self-esteem and personal identity, as a result of certain actions, is measured on one or all of the following variables:

- Comparison Propensity i.e. likelihood for comparisons.
- Tendency for negative thoughts.

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- Feeling pressurised to follow the trends.
- Effect on self-identity.

Literature Review

When I started on this research, I had already studied the concept of personality in Class 12, different components/types and how it is shaped. I also had read a bit about identity and self-esteem and how it shapes personality types. NCERT text book on Psychology covers the concept of personality, self and self-esteem in Chapter 2, pp. 2 & 3. It says “from common observation we know that different people hold different ideas about themselves. These ideas represent the self of a person”. I also researched further on theory of self-esteem and its direct relationship with comparisons due to social media. I found few of the theories and concepts which I could refer and relate to.

- Heatherton and Polivy (1991) claim that the concept of self-esteem can be either stable or fluid in nature i.e. it can take time to develop for some people while it can change with trends and daily events for others. While negative feedback lowers the self-esteem of individuals, positive feedback increases self-esteem to a very high degree (Valkenburg et al., 2006).
- People engage in two types of comparisons on social networking sites, upward and downward comparison. The former is the comparison between an individual and those superior to him and possessing positive attributes while the latter marks the comparison between an individual and those inferior to him and possessing negative attributes (Wills, 1981; Wood, 1989). Lockwood and Kunda (1997) argue that upward social comparisons can be inspirational for people as they could focus on replicating their comparison targets behaviour and attitudes. But it has also been observed that upward comparisons make people feel inferior and have negative evaluations of themselves (Morse & Gergen, 1970). As a result, these upward comparisons in most cases negatively affect people’s self-esteems (Vogel, Rose, Roberts & Eckles, 2014).

Methodology

Primary data for this research was collected through a questionnaire with multiple questions. Questionnaires

were sent and filled out by the participants constituting young people. The survey questionnaire focussed on three broad umbrella categories:

- Questions on “General pattern for social media consumption?”
- Questions on “How social media usage affects self-esteem?”
- Questions on “How social media usage impacts choices and personal identity?”

Questionnaire, in above three categories, constituted of 25 questions in total and for most of the questions the user can choose their answers from multiple choices provided.

Inclusion Criteria

As youngsters tend to use social networking sites more than adults, this research is based on young respondents of any gender between the age group of 12 to 25.

Variables

Key variables include, the responses of the participants and the number of participants.

The independent variable in this study is the social media usage of respondents (in hours) whereas the dependent variable is the impact on identity and self-esteem of respondents. Impact on identity and self-esteem, is measured through multiple factors as defined in methodology section above.

Sample Size and Demographics

A sample size of 47 respondents was used for this study, with distribution as given below:

Table 1

Age Group	12-15 Years	16-19 Years	20-25 Years
No. of Respondents	13 respondents	21 Respondents	3 Respondents

Table 2

Gender	Male	Female
No. of Respondents	16 respondents	21 Respondents

Results of the Study

For this study we used correlation and regression analysis to understand relationships between variables. Frequency

analysis is used to understand how results are distributed across age groups.

Correlation Analysis

Table 3

Variable 1	Variable 2	Correlation Coefficient	Analysis
The number of hours spent	Comparison Propensity: Have you ever compared yourself to other social media influencers?	0.47	This means there is a moderate correlation between the hours spent and whether people generally compare themselves to others on these platforms.
The number of hours spent	Tendency for Negative Thoughts: Have you ever had negative thoughts about yourself because you saw a glorified life portrayed online?	-0.9	It has a negative correlation of -0.9. A negative correlation signifies an inverse relationship between the two variables. An inference that can be drawn is that people do not always have negative thoughts because of social media. Social media does cause gratification and does to some extent allow one to have positive thoughts.
The number of hours spent	Pressure to follow trends: Do you feel pressured to adhere to certain trends being followed on social media? (For example do you feel pressured to wear certain types of clothes, or buy certain things?)	0.673	There is a strong correlation of .67 between the number of hours spent on social media vs the pressure respondents feel to follow specific trends. This shows that a trend of conformity is noticed and respondents wish to be following trends portrayed on social media. One can infer that this has a direct effect on their self-esteem and personal identity.
The number of hours spent	Effect on personal identity: Do you believe social media has had an effect on your personal identity?	0.13	A direct correlation of 0.13 is shown between the effect of personal identity and the number of hours spent.

While above analysis shows the relationship between hours spent on social media and impact on various variables, there might be age specific variations with in the sample of respondents. To understand it better I also analysed if there are any insights if we compare age groups across different variables.

Analysis of Age Group vs. Evaluation Variables

Age Group vs. Tendency to Compare

While a large percentage of respondents (39%) answered YES for comparison to influencers the distribution of the YES respondents in highest in age group of 12-15 years.

Table 4

Age Group (in Years)	Yes	No	Maybe
12-15	54%	38%	8%
16-19	33%	38%	29%
20-25	0%	50%	50%

Age Group vs. Negative Thoughts

Quite large percentage, i.e. 50% of all the respondents stated that they get negative thoughts while going through social media.

Table 5

Age Group	Yes	No	Maybe
12-15	38%	38%	23%
16-19	62%	19%	19%
20-25	0%	50%	50%

The table above shows that in teenage group of 16-19 years of age social media usage introduces negative thoughts.

Age Group vs. Pressure to Adopt Social Media Trends

While respondents answering YES for pressure to adopt trends is 22% but combining Maybe answers it is good 58% distribution.

Table 6

Age Group	Yes	No	Maybe
12-15	23%	38%	38%
16-19	24%	43%	33%
20-25	0%	50%	50%

If we combine answers Yes and Maybe the tendency to adopt social media trends is highest in lower age groups of 12-15 and 16-19 years.

Age Group vs. Impact on Identity

A whopping 61% clearly state that social media has impacted their personal identity.

Table 7

Age Group	Yes	No	Maybe
12-15	62%	23%	15%
16-19	62%	14%	24%
20-25	50%	50%	0%

Further distribution of the same data into age groups confirms the same findings and is consistent with findings for first three findings, i.e. younger age groups (12-15 years) and teenage age groups (16-19 years) have larger percentages of YES responses.

Conclusions

Based on the data analysis we can conclude that

- A strong positive correlation and conformity is noticed amongst social media users, for number of hours spent and following of trends portrayed on social media. Tendency to adopt the trends is highest amongst age group of 12-15 years and 16-19 years.
- A moderate correlation between the hours spent and whether people generally compare themselves to others on these platforms. Tendency to compare is high amongst all users with age group of 12-15 being most affected.
- A strong negative correlation between hours spent and negative thoughts mean that social media usage may create positive vibes as well. Moreover frequency analysis suggests that negative thoughts are more prevalent amongst the age group 16-19 years.

- Lastly while lower correlation is observed between number of hours spent and impact on identity, frequency analysis suggests that lower age group of 12-15 years and 16-19 years report higher impact on identity.

Limitations

The sampling method used was convenience sampling so there can be certain doubts on whether the sample is a true representation of the whole population or not. Though the questionnaire was well constructed but the integrity of the students cannot be measured. Self-esteem depends on person to person and the factors that cause to change also vary from person to person so there can never be an accurate measure for self-esteem. Due to embarrassment or other social factors the respondents might have not been truthful in their answers.

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