

# IMPACT OF SOCIAL MEDIA ON SOCIAL RELATIONSHIPS

## Introduction

Social media is a relatively new way of sharing information and connecting with people around the world. Earlier, telephones and letters were some of the few forms of communication. However, with the rise in the use of mobile devices and Internet the world has become the global village, where any kind of information is just a mouse click away. Although social media has greatly eased communication and information retrieval over long distances, it has also affected the social relationships in more than one way. Keeping this in mind we designed a study to analyze the impact of social media on social relationships among people of various age groups. As far as the applicability of such an analysis is concerned, it could be used by a social media company like Facebook, Twitter etc in order to understand the impact of it's product on it's customers. Such an analysis could give them ideas for further improvisations in their product features.

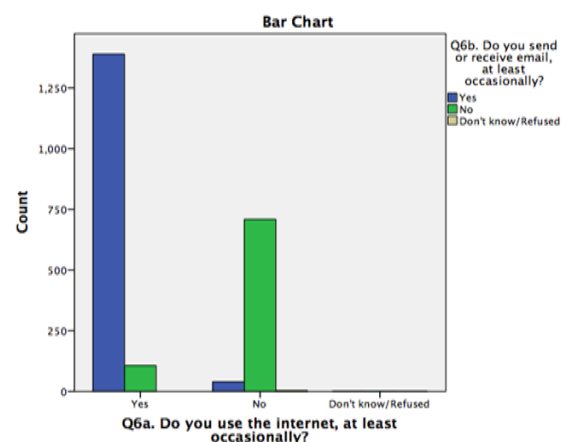
## Data Preparation

Dataset: For this study we used the dataset named "Families" provided by Pew Internet. This dataset includes demographic data and survey data on various survey questions related to usage of internet and social media by people in their day to day life. The data has been collected from 2250 adults across various geographical locations within US. As part of our study we had shortlisted few relevant variables like age, usage of internet and few relevant survey questions which can help us in answering our problem statement.

Tools: For our study we predominantly used SPSS to analyze the data. We preferred SPSS over excel for our analysis as it gave us more freedom in applying various descriptive statistics techniques as well as various

statistical tests to come to some conclusions in the study.

Reliability and Validity of data: In order to proceed with our analysis we wanted to check the reliability and validity of the dataset we are using, since the data contains survey results collected by a third party source. As part of this we had performed some initial checks on the dataset to analyze the reliability and validity of data. From our analysis we found out that the data collected is valid across required variables with respect to the coded values. Furthermore, we analyzed each of the required variables in SPSS to check if the data collected is reliable or not. We found out that most of the data seems to be legitimate apart from few discrepancies. For example, we observed that from a total number of respondents who are surveyed, approximately 1.7% of respondents said that they do not use internet but responded a "yes" for a survey question "Do you send or receive email occasionally?". We also found out that such discrepancies accounted to very less percentage of the total population as a result we had decided to remove such data from the total dataset and proceed with our analysis.



Missing Values Coding: In the data set we also found out that there are some considerable missing values in few of the variables which

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we intended to use for our study. So, we had coded those missing values in SPSS by calculating the series mean of each variable and replacing the missing fields with the mean value as we felt that this gives us a close to approximate values for the missing fields.

## Analysis and Findings

We carried out the analysis of the dataset using various statistical analysis techniques like Chi-squared test, T-test, One-way ANOVA, Power calculations. Using these tests we have identified certain dependencies in the dataset.

- Identify the dependency between ease of communication using social media and age-groups. We performed a Chi-squared test to identify the above mentioned dependency. Our finding from this test was that, the age group of 25-50 years finds most ease in communication using social media. Age-groups above and below 25-50 years do not find the same ease of communication in using social media. This might be because of the fact that off the recent times, as the advancement in social media has taken place, this age group has been exposed the most to social media. As the popularity of social media goes on increasing these figures might change in the near future.

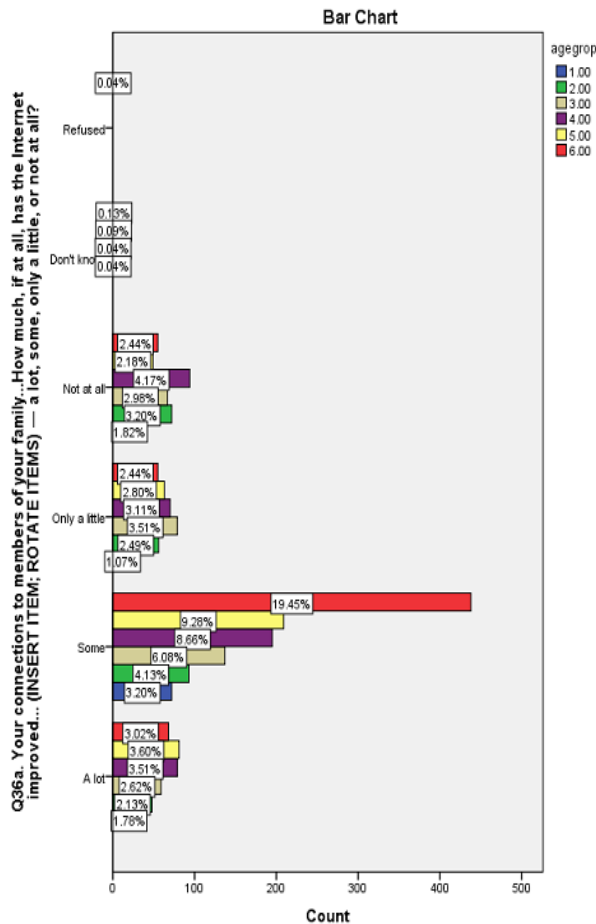
- Identify the dependency between having an account on a social media website and tendency to initiate communication. We again performed a chi-squared test to identify the above dependency. Our finding from the above test was that, if somebody has an account on a social media website then that person tends to initiate communication with others as opposed to somebody who does not have an account on a social media website. Having an

account on a social media website might not be a true indicator of the social quotient of the person but what our study concludes is that, there is a high likelihood that the person having an account on a social media website initiates communication.

- Identify the effect of activity level on social media to the level of communication with the friends. We performed a T-test in order to test the above results. Here, we have compared two groups of people, the ones who have an account on social media and the ones who do not have an account on social media. The results of the analysis that we performed were that, being active on social media tends to increase the communication with friends. We also checked the power of this test and the results were greater than 50%, which shows the validity of our test and the conclusion drawn from it.

Also as part of our analysis we had performed various descriptive statistical crosstabs on age and various set of survey questions which helped us in our conclusions. The below visualization explains the improvement in the connectivity amongst the family members brought about by social media.

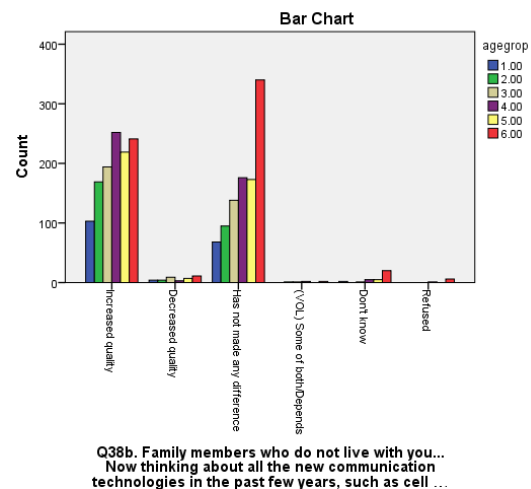
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Out of the total number of people involved in the survey approximately 68% (we have joined the levels 'a lot', 'sometimes' into one category of having a positive impact and 'only a little', 'not at all' as another category of having no impact) believe that social media has helped them improve relationships with their family members. Here, we see that there is a sharp rise in the people above the age of 65. This could probably be because of the usage of social media by high aged groups to communicate with their children and grand-children staying away. About 72% of the people believed that social media has improved the connectivity with their friends.

We also found that about 52% of the participants felt that their ease of

communication has improved with their family members and friends who are staying away from them. Of the remaining participants 43% felt that there was no significant change when it comes to ease of communication with their family members and friends.

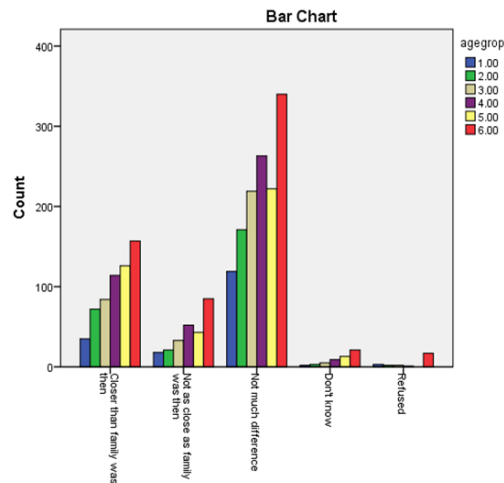


We further analyzed this 43% data to get to know for which particular age group the change is not really felt. Approximately 51% of these 43% respondents were aged 50 and above. So we concluded that social media is not really helping in increasing the quality of communication amongst aged people. We also found out that approximately 55% of respondents felt that social media has not affected the tendency or ability to make new friends or meet new people. We felt that one reason for this can be that people are reluctant in making new acquaintances virtually. Unfortunately we didn't have further data to analyze these reasons.

We also observed that about 60% of the people believe that social media does not hold a significant impact on the closeness in a family. From the below visualization we can say that social media might provide tools to communicate with the family

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members staying away or to communicate with friends and family but it does not contribute to the emotional bonding formed within a family.



## Conclusion

Some of the important conclusions that we could draw from our analysis are :

- Social media has a positive impact in building and maintaining social relationships but it cannot substitute the emotional bonding involved in these relationships.
- Generally higher aged people and children do not tend to use social media for communication. Social media is most prominently used by people whose age is ranging from the early to mid twenties to early fifties.
- Social media has brought about an ease in communication.
- People using social media extensively are more likely to initiate communication.

## Limitations

- Some of the limitations that we faced during our analysis include our limited ability of data munging. Since, extracting data from various sources and putting it into the required formats was out of the scope of our syllabus for this course, we resorted to a research on a variety of surveys and zeroed in on one of the surveys.
- The survey results obtained from the dataset are collected in 2008 so few of the conclusions made may not be in line with current trends.

## References

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