SCHOOL OF COMPUTING
Faculty of Engineering

SESSION 2020/2021 SEMESTER 2

SECI2143 – PROBABILITY & STATISTICAL DATA ANALYSIS

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Project 1

SECTION: 05

Group Name: Data Miners

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1.0 INTRODUCTION

Social media are interactive technologies that enable the development or sharing/exchange of knowledge, ideas, professional interests, and other forms of expression through virtual communities and networks. Many people use social media to keep in contact with and connect with friends and relatives, while others use it to engage with various groups. Social media is also used by companies to sell and advertise their goods. Social media has grown in popularity and accessibility because of the availability of mobile applications, with some examples of social media like Twitter, Facebook, and Instagram. Therefore, how does the pandemic affect social media use and the reason for which users use it?

The study's aim is to differentiate between media usage prior to the pandemic and media use during the pandemic, identifying the social media platform, the device they use most, the platform of the device, whether they post anything on social media, the purpose of using social media, comparing the use of social media, and so on. Since the pandemic happened, people get connected through social media. Myriad of things were replaced for progress to happen. For example, students require online learning to proceed their education instead of face-to-face physically, e-commerce is used to do business to keep the economy running and numerous jobs are now being done online.

As a result of this, we anticipate that the data for media use during a pandemic will significantly rose due to self-quarantine and a tremendous hour spent in social media. Thus, we can collect as much data as possible to gain their experience and feedback to understand their needs. Therefore, our group conducted a survey of 14 questions regarding their social media habits.

2.0 DATA COLLECTION

        For data collection our group did a questionnaire through google form. We did a discussion through telegram about the suitable questions and answers needed to collect the appropriate data for our topic which is the use of social media during the Covid-19 pandemic. The google form consist of 14 questions. We sent the link to the google form to our whatsapp and telegram chat groups for people to answer it according to their preferences. The tables below shows the summarization of data collected for each question through the google form that we already distributed.

1. Gender

Gender	Frequency
Male	35
Female	35
Prefer not to say	2
Total	72

2. Age

Age	Frequency
Less than 18	5
18 - 24	30
25 - 30	1
More than 30	36
Total	72

3. Hours spent in social media before pandemic

Hours spent	Frequency
Less than an hour	4
1 – 2 hours	25
3 – 4 hours	28
5 – 6 hours	7
More than 6 hours	8
Total	72

4. Hours spent in social media during pandemic

Hours spent	Frequency
Less than an hour	1
1 – 2 hours	10
3 – 4 hours	29
5 – 6 hours	15
More than 6 hours	17
Total	72

5. What social media platform do you use?

Social Media Platform	Frequency
Youtube	56
Facebook	44
Whatsapp	70
Instagram	50
Tik Tok	10
Twitter	24
Telegram	37
Trello	1
Twitch	2
Reddit	3
Discord	1
Total	298

6. What device do you use most for social media?

Device	Frequency
Desktop	4
Laptop	3
Mobile	63
Tablet	2
Total	72

7. What platform of that device?

Platform	Frequency
IOS	25
Android	38
Windows	8
MacOS	1
Total	72

8. Do you post anything on social media?

Response	Frequency
Always	4
Often	6
Sometimes	20
Rarely	29
Never	13
Total	72

9. What do you use social media for?

Response	Frequency
Entertainment	66
Bussiness	15
Education	44
Work/Job	28
Total	153

10. Do you use social media differently now due to the pandemic?

Response	Frequency
Yes	38
No	34
Total	72

11. Do you get your news about the ongoing pandemic through social media?

Response	Frequency
Yes	68
No	4
Total	72

12. How trustworthy is the news from social media?

Response	Frequency
Very trustworthy	4
Trustworthy	7
Somewhat trustworthy	40
Skeptical	19
Distrust	2
Total	72

13. Do you verify the information you get from social media?

Response	Frequency
Yes	63
No	9
Total	72

14. Rate your overall experience using social media

| Response	Frequency
5	16
4	37
3	13
2	5
1	1
Total	72

3.0 DATA ANALYSIS

Categorical data:

From the survey conducted on 72 people as a sample population we got 35 responses from males, 35 from females and 2 people didn't prefer to reveal their gender. Making a Pie chart from the data given, we got 48.6% of the responses are male and 48.6% are female which is the same as male. And only 2% of the responses didn't share their gender.

What is your gender ?
72 responses
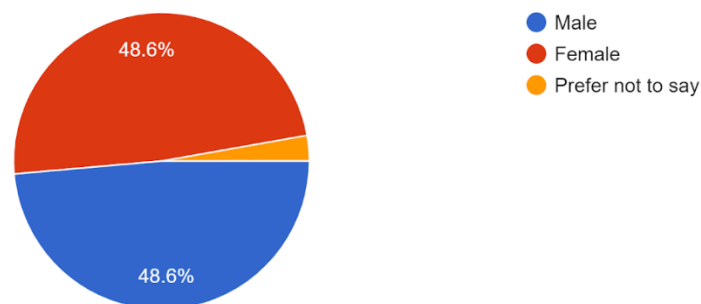
Next we produced a multi bar graph to compare the changes of hours spent on social media before and during the pandemic. The graph clearly shows the impact of pandemic on social media usage, Just like within the sample population most of the people used to use social media less amount of time. If we see 1-2 hours before the pandemic it was 25 people among the responses who spent 1-2 hours on social media which is 34,72 % of all people but it dropped to only 10 people during the pandemic which is only 13.89%. The population started to spend more hours in social media so the population decreased in 1-2 hours bar but increased in the higher hour bars. Just like in a 5-6 hour bar the percentage changed from 9.72% to 20,83 %.

Hours spent in Social Media
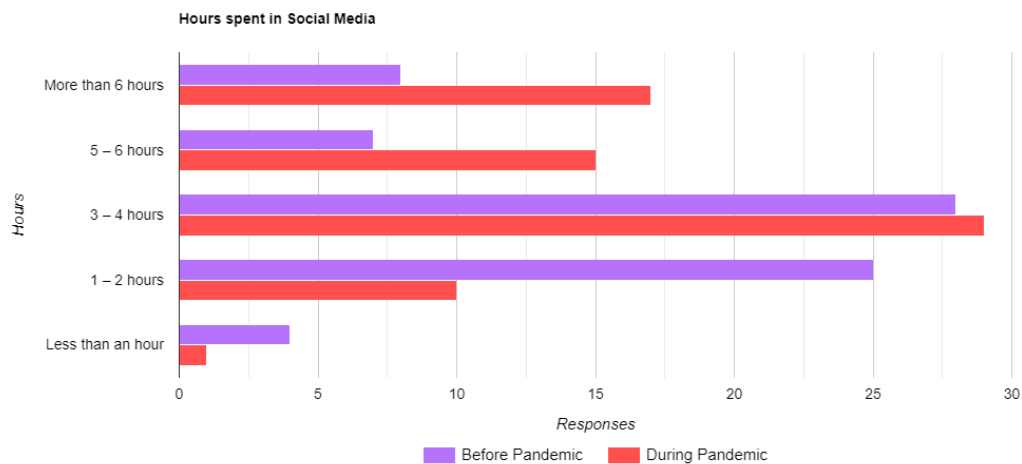
By analysing the social media platform data we can get a bar chart using the entities from different social media platforms. Based on the data 56 people out of 72 use youtube as social media which is 77.8% of the sample population and this comes in 2nd most popular social media based on the data we got. The most popular one is whatsapp where 97.2% of the people use it, means 70 people out of 72 use Whatsapp.And instagram is at the 3rd number.

**What social media platform do you use?**

72 responses
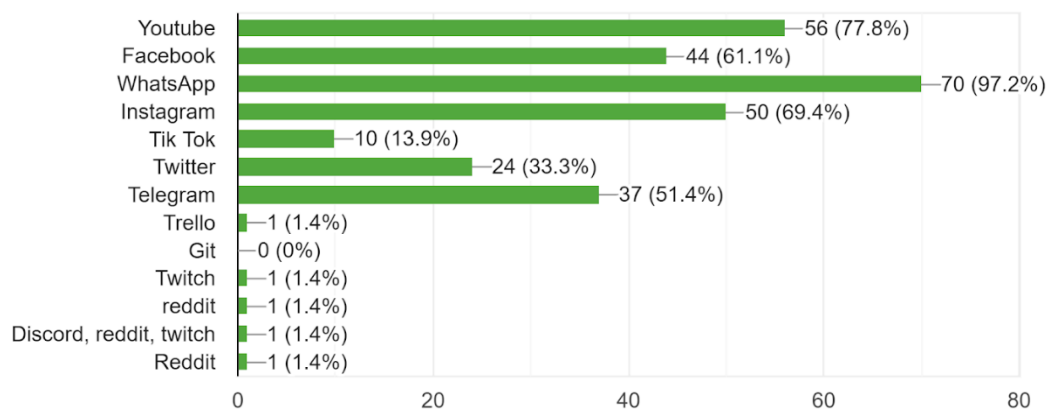
From the data we get,
How trustworthy is the news from social media?

Response	Frequency
Very trustworthy	4
Trustworthy	7
Somewhat trustworthy	40
Skeptical	19
Distrust	2
Total	72

To know the actual trustworthiness of social media among the population, we can make a box plot.

How trustworthy is the news from social media?
72 responses
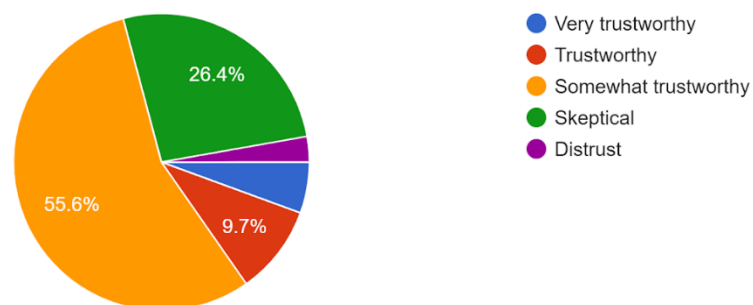
From the data above, we get frequency 2, 4, 7, 19, 40.
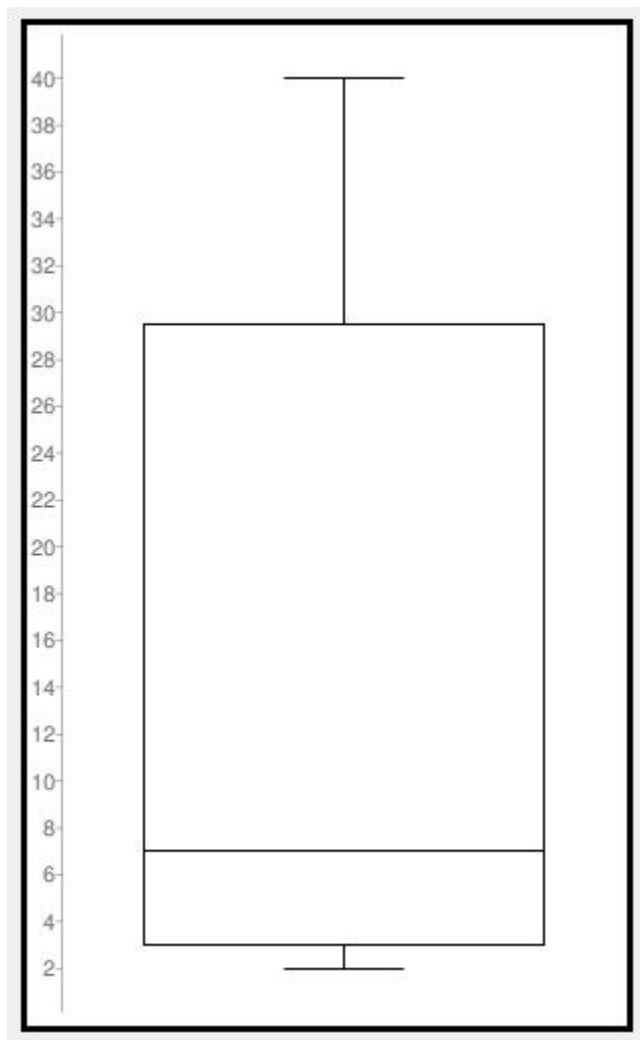
Population size: 5
Median: 7
Minimum: 2
Maximum: 40
First quartile: 3
Third quartile: 29.5
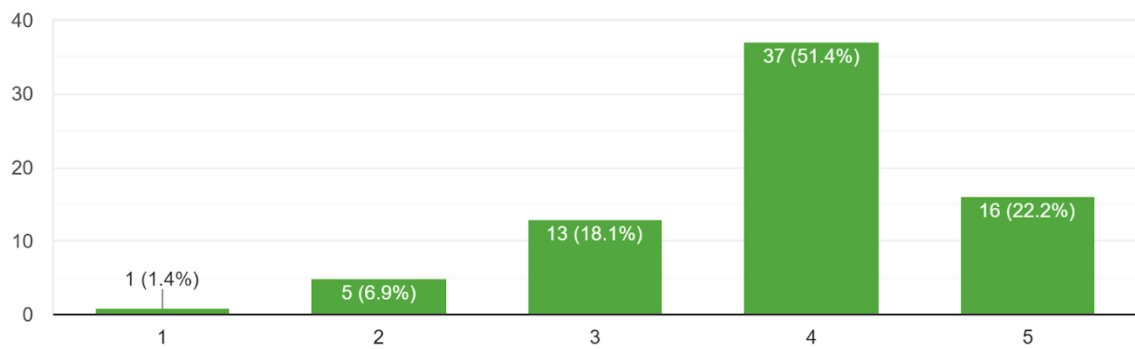Interquartile Range: 26.5

So the the trustworthiness among the people is 3-29.5 people don't trust the social media from 72 people.
Here we can see 37 people out of 72 voted 4 rating which is the prominent here with 51.4%.

So this can be considered as the main reflection of the population.

Rate your overall experience using social media
72 responses

4.0 CONCLUSION

In conclusion, 37 respondents out of 72 found social media experience to be quite appealing, which is about 51%. But we can see a drastic change of hours passed in Social sites, between during pandemic and before pandemic. For example, only 8 persons responded to be using more than 6 hours before pandemic. But during pandemic it boosted to 20.83% from 9.72%. Thus we can say, staying confined in the house made people to use these site more often than before. WhatsApp, YouTube, Facebook, Instagram, Telegram etc. drain more time as people in lockdown tend to use these for entertainments mostly. Other than that, everything became online based so people use them for business, job and mainly education. Also you can get ongoing news of pandemic though these sites as well, though only around half of the participants find news on social sites to be somewhat trustworthy. There is a good reason for it as well, as these are user-based softwares, so these news can be tampered or based on personal beliefs and ideals.

QUESTIONNAIRE

LINK: https://docs.google.com/forms/d/1BDf0AMvLTg75o05xTl800tk-fE5VU1hdk9w-F2E_3Qs/edit