ANALYSIS OF STUDENT´S SOCIAL MEDIA ADDICTION

**Introduction**

In today's digital age, data is abundant—especially on social media platforms that constantly bombard us with fleeting information, offering little value and triggering unhealthy dopamine spikes. As misinformation increasingly blurs the line between fact and fiction, I decided to analyze anonymized data from an online survey to investigate key questions:  
Are we becoming more addicted to social media? Are we investing more time in digital life than the physical one? How do factors like age, relationship status, geographic location, and gender influence time spent on social media? Is this a European problem—or a global one?

I chose this topic because time is a limited and precious resource. Personally, I value using it intentionally: not for online validation, but for learning, exploring new perspectives, and challenging my beliefs. This self-initiated project helped me develop those skills and deepen my curiosity. Ultimately, I want to learn how to objectively analyze large datasets and draw my own conclusions—rather than blindly accepting media narratives.

**Methodology**

The dataset I used comes from an anonymous public survey hosted on Kaggle.  
I cleaned the data, calculated averages, created tables, and visualized insights using **Microsoft Excel**. This project was primarily a learning exercise aimed at building proficiency in basic Excel functions and data tools. During the process, I discovered that I genuinely enjoy working with data and uncovering patterns and potential correlations between variables.

That said, I chose not to expand the analysis excessively. Due to sample size limitations and certain inconsistencies in the dataset, further statistical inferences would not yield robust conclusions.

**Data analysis and visual representation**

Fort he following table I used the function =AVERAGEIFS() to calculate average numbers for different academic levels and sexes. I also used function =COUNTIFS() to count the number of students fitting the criteria.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Age** | **Average usage hours** | **Hours of sleep per night** | **Addicted score** | **Number of students** |
| High school |  |  |  |  |  |
| Male | 18,25 | 5,18 | 5,59 | 7,50 | 12 |
| Female | 18,80 | 5,84 | 5,35 | 8,47 | 15 |
| All | 18,56 | 5,18 | 5,46 | 8,04 | 27 |
| Undergraduate |  |  |  |  |  |
| Male | 19,90 | 4,94 | 6,52 | 6,54 | 63 |
| Female | 19,63 | 5,01 | 6,90 | 6,47 | 288 |
| All | 19,68 | 4,94 | 6,83 | 6,48 | 351 |
| Graduate |  |  |  |  |  |
| Male | 21,82 | 4,80 | 7,07 | 6,28 | 274 |
| Female | 22,40 | 4,73 | 6,80 | 6,10 | 48 |
| All | 21,90 | 4,80 | 7,03 | 6,26 | 322 |

***Table1****. We can clearly see that the average time spent on social media per day is alarming. High school students spend the most time on social media (5,18h or 21,58% of the day), sleep the least (5,46h per night instead of 8-10h) and have the highest addicted score (8,04, Bergen Social Media Addiction Scale). The main problem is the low amount of data from high schoolers- the survey might have just gotten their answers from extremely addicted teenagers instead of the general teenager population. The second problem is massive male to female ratios in undergraduates (1:4,6) and graduates (6,1:1) which can also be misleading. Based on given data younger people have higher tendencies to social media addiction than older people, but they all spend too much time in the digital world.*

For the following graph I created a pivot table including different ages and average of the time spent on social media per day. The table calculated the values itsef.

***Graph1****. Visual representation of time spent on social media in correlation with age. In the survey only participated 705 people so you have to be careful in generalizing. The trend is lower time spent on social media while getting older. Initial spike can be explained by adolescent brain´s weakness to social acceptence and addicting substances, while the latter can be explained by using social media as an escape from harsh reality.*

For the following graph I created a pivot table including sexes and different parameters. Excel calculated all the values, I just adjusted the options.

***Graph2****. There aren´t major differences between two sexes. Technically teenage males are less addicted to social media.*

For the following table I had to be more creative because I wanted to sort 111 different countries into 8 regions, which simplifies data presentations and analysis. In a new list I created a table asigning every country to a region. Afterwards I created a new column called »Region«. Using function =XLOOKUP() every student got a asigned a region depending in their country. For the following calculations I used simplified functions: to count students =COUNTIF(), for time on social media =AVERAGEIFS(), for negative affects =(COUNTIF(Yes))/COUNTIF(No)\*100 and a pivot table to read the most popular platform.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Region | Number of students | Time on social media [h] | Negative affects academic performance [%] | Most popular platform |
| Europe | 325 | 4,54 | 50,77 | Instagram |
| Africa | 6 | 4,13 | 50,00 | N/A |
| Middle East | 21 | 5,36 | 80,95 | Instagram |
| Asia | 179 | 5,02 | 69,27 | Instagram |
| Oceania | 51 | 4,68 | 54,90 | Instagram |
| South America | 16 | 4,99 | 75,00 | TikTok |
| Central America | 33 | 6,13 | 93,94 | WhatsApp |
| North America | 74 | 5,89 | 98,65 | Instagram |
| All | 705 | 4,92 | 64,26 | Instagram |

***Table2****. Students are distributed by the region. People from Central America spend the most time on social media (6,13h or 25,54% of the day) which in 93,94% of time have negative effects on academic performance, while people from Africa spent the least amount of time on social media (4,13h or 17,20% of the day) with lowest negative impact on academic performance (50,00%). The most popular social platform is instagram. The problem is the small sample size and disproportional distribution. If we wanted more reliable data, we would need more survey answers and around the same number of people from different regions. Only then could we accurately compare and find correlations.*

***Graph3****. Visual representation of student distribution per region. Highest amount of people are from Europe and the least amount from Africa*.

I also experimented on combined graphs to see if I can present three or more different types of data. I don´t think it turned out good. I used the data from the table2.

Slika, ki vsebuje besede besedilo, posnetek zaslona, diagram, vzporedno

Vsebina, ustvarjena z umetno inteligenco, morda ni pravilna.

***Graph4****. Visual representation of negative influence of social media on academic performance in relation to spent time on them per region.*

To simplify the legend and visual presentation I put every rarely used app (less than 20 times in total) in the category »Other«. I used the same process as in creating the table2. The graph used a new pivot table.

***Graph5.*** *We can see that students in Asia have the biggest variety of popular social media platforms while North America has the least variety.*

I used a new pivot table to create the following graph.

***Graph6****. Relationship status does not have significant impact on social media addiction.*

**Conclusion**

Data is not apropriate for drawing accurate conclusions. But based on it:

-students spend a lot of time on social media by decreasing their sleep which negatively affects their (academic) life,

-younger people are more addicted to social media,

-gender and relationship status don´t have significant impact on social media addiction,

-data i mostly focused on Europeans and Asians,

-the most popular social media platform is instagram

In the future, I would like to replicate this project in Python or R, include machine learning methods, and work with larger and more balanced datasets. This way, the analysis could gain predictive value and practical applications in education or policy-making.