



Addiction to social networks in students

☀ Estado	Listo
☑ Finished	☑
📄 Idioma	Ingles
👤 Responsable	Ⓐ Andres C
📄 Tipo	Main

About the project

Descriptive analysis whose purpose is to determine how the data is distributed in relation to the average hours of people of different ages, occupations and which social network they use the most, as well as to determine which country has the highest addiction rates and problems faced by students in relation to the use of social networks.

Action items

- ☑ SQL
- ☑ Notion
- ☑ PowerBI

About the data 🧐

COLUMNS	TYPE	
Student_ID	INT	
Age	INT	
Gender	TEXT	
Academic_Level	TEXT	
Country	TEXT	
Avg_Daily_Usage_Hours	DOUBLE	
Most_Used_Platform	TEXT	
Affects_Academic_Performance	TEXT	
Sleep_Hours_Per_Night	DOUBLE	
Mental_Health_Score	INT	from 1 (poor) to 10 (excellent)
Relationship_Status	TEXT	
Conflicts_Over_Social_Media	INT	
Addicted_Score	INT	from 1 (low addiction) to 10 (high addiction)

Documents

https://drive.google.com/file/d/17nDjgBRGOZ-kEbiokzQl1ka6DS3XYRsB/view?usp=drive_link

Data preparation

There was not much to do in this section, only duplicates were checked.

```
-- Verify Duplicates on Column

SELECT Student_ID, COUNT(Student_ID)
FROM stu_smedia_addiction
GROUP BY Student_ID
ORDER BY COUNT(Student_ID) DESC;
```

Analysis Questions

In the next part you will have a view where you will find the questions of interest and the formulation of the queries for the resolution of the questions in SQL:

```
/*-----
-- ¿Cuál es la distribución de las horas diarias promedio de uso de redes sociales según el género de los estudiantes?

WITH All_freq AS (
    SELECT Gender,
           CASE
             WHEN Avg_Daily_Usage_Hours BETWEEN 1.0 AND 2.9 THEN '1-2'
             WHEN Avg_Daily_Usage_Hours BETWEEN 3.0 AND 4.9 THEN '3-4'
             WHEN Avg_Daily_Usage_Hours BETWEEN 5.0 AND 6.9 THEN '5-6'
             WHEN Avg_Daily_Usage_Hours BETWEEN 7.0 AND 8.9 THEN '7-8'
             ELSE '8+'
           END AS range_hours
    FROM stu_smedia_addiction
    WHERE Gender IN ('Male', 'Female')
)
SELECT range_hours,
       COUNT(CASE WHEN Gender = 'Female' THEN 1 END) AS freq_female,
       COUNT(CASE WHEN Gender = 'Male' THEN 1 END) AS freq_male
FROM All_freq
GROUP BY range_hours
ORDER BY range_hours;

/*-----
-- ¿Cómo varía el puntaje de adicción a redes sociales (Addicted_Score) por nivel académico (High School, Undergraduate, Graduate)?

SELECT Academic_Level, AVG(Addicted_Score) AS Mean, ROUND(VAR_SAMP(Addicted_Score),3) AS var_muestral
FROM stu_smedia_addiction
GROUP BY Academic_Level;

-- Con respecto a la media de cada nivel academico la varianza muestral presenta valores mas agrupados a su nivel academico

/*-----
-- ¿Qué países presentan los mayores promedios de horas diarias de uso de redes sociales entre los estudiantes?

SELECT Country, ROUND(AVG(Avg_Daily_Usage_Hours),2) AS avg_per_country
FROM stu_smedia_addiction
GROUP BY Country
ORDER BY avg_per_country DESC;
```

```

-- Los paises con promedios mas altos de usos de redes sociales por sus estudiantes
-- Estados Unidos: 6,89 - Emiratos Arabes: 6,72 - Mexico: 6,42

/*-----
-- ¿Existe alguna diferencia significativa en el puntaje de salud mental (Mental_Health_Score) entre estudiantes

SELECT Age, ROUND(AVG(Mental_Health_score),2) AS mean_per_age
FROM stu_smedia_addiction
GROUP BY Age
ORDER BY mean_per_age DESC;

-- de 1 a 10 donde 1 es malo y 10 excelente
-- el promedio de salud mental por cada edad es de 6 puntos aprox
-- donde las personas de 23 tienen una mejor salud mental frente a personas de 18 años

/*-----

```

If you want to see the whole file:

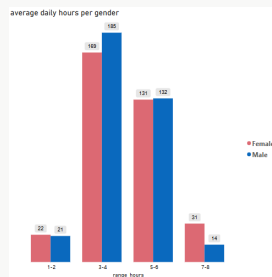


[Answers.sql](#)

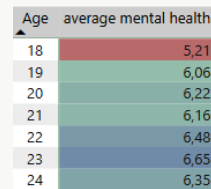
Findings



▼ Distribution and demographics

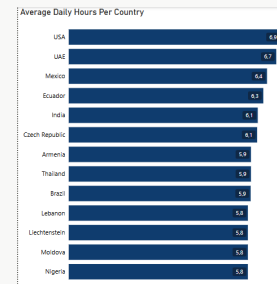


Male students spend much more time on social networks than females.



Scores where 1 is bad 10 is excellent.

Academic Level	Average Addiction Score	Variance Sample
Undergraduate	6,49	2,67
High School	8,04	1,27
Graduate	6,24	2,22

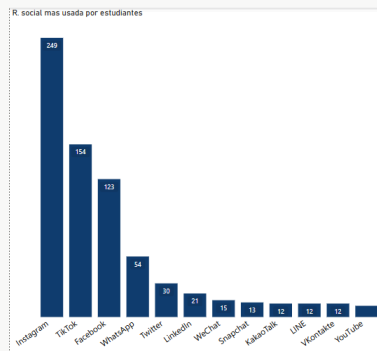


Students in countries such as the USA, UAE and Mexico were found to spend on average more than 6.2 hours on social networks in Addition,

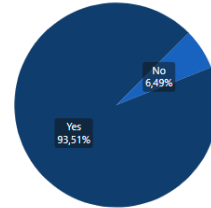
High school students tend to have a higher score of addiction to social networks and consequently have a deterioration in their mental health whose most affected group are young people between 18 to 21 years old.



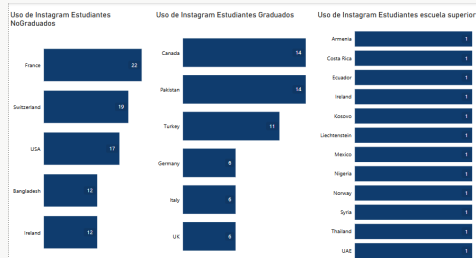
▼ Platform Use and Behavior



Estudiantes que reportan impacto negativo en el rendimiento academico usando TikTok



Students who use Tiktok, 93.51% experience lower academic performance.

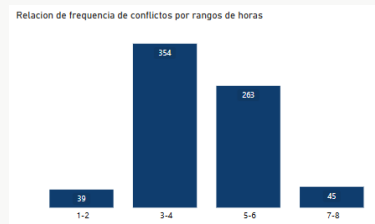


It can be concluded that the apps most used by students is Instagram and TikTok, where there is a higher proportion of Undergraduate students who occupy the app.

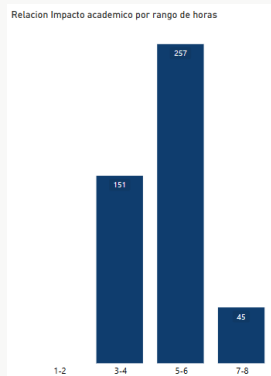
On the other hand, the app that generates a lower academic performance compared to Instagram, which is the one most used by students (57.83%) is the TikTok app.



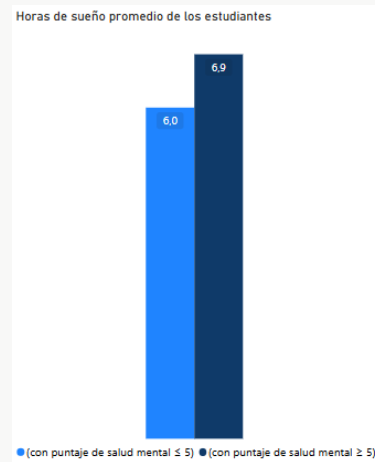
▼ Impact on Academic Performance and Mental Health



There is a relationship between the number of hours a student spends on social networks and the personal conflicts it generates.



There is a relationship between the amount of hours a student spends on social networks and a drop in academic performance.

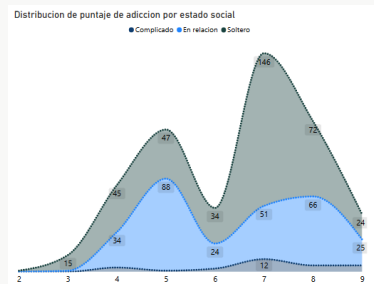


A student with a mental health score higher than 5 sleeps on average 6 to 7 hours more compared to students with a score lower than 5 who on average sleep 6 hours more.

The impact of addiction to social networks among students can be evidenced that there is a higher risk of presenting low academic performance, personal conflicts depending on the amount of hours used by social networks and an alteration of sleep hours in students with mental health score below 5.



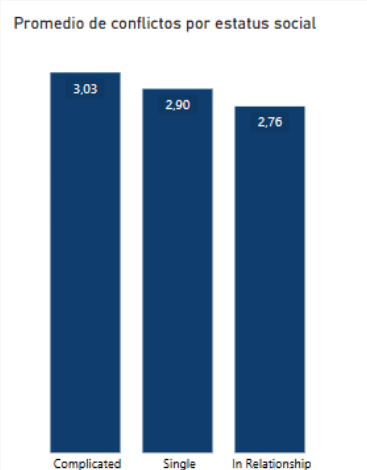
▼ Personal Relationships and Addiction



Students with social status 'single' and 'in a relationship' have a higher rate of addiction to social networks compared to people with 'complicated' status.



There is a relationship where the number of conflicts rises with higher social network addiction scores.



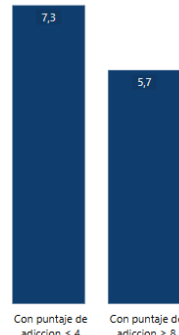
On average, students with 'complicated' social status tend to have more personal problems than people who are single and in a relationship.

On average a person in a 'complicated' state has personal conflicts with more than 2 people, and that students' personal conflicts in general are higher as they have higher addiction scores. The group that tends to have more conflicts because of their network addiction are single students.



Sleep and Well-Being

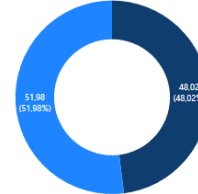
Promedio de horas de sueño



Students with low addiction scores sleep on average 7h than students with high addiction scores.

Porcentaje estudiantes que duermen menos de 6 horas

● puntaje salud mental ≤ 5 ● puntaje salud mental > 5



Students with a score ≥ 5 (good mental state) tend to sleep less than 6 hours per night.

It can be evidenced how students with high addiction scores tend to sleep less. consequently their mental health decreases. Although this is not always the rule, there is a group of students who sleep less than 6 hours per night and their mental score is higher than that of young people with high addiction scores. The underlying cause of these data should be further investigated.

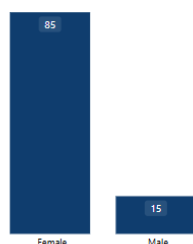


▼ Atypical Cases - More than 8 hours of use

clasification	Adidiction score	Mental Helalth Score
Atypical	9,00	5,00
Typical	6,41	6,24

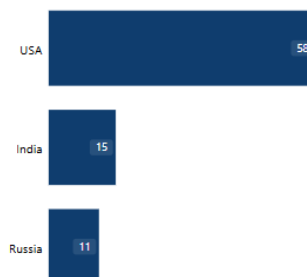
High levels of addiction and poor mental health are observed.

Proportion Gender (Special Case)



There is a higher proportion of female students using social networks more than 8 hours per day.

Proportion Country



The countries with the highest rates of social network addiction are the USA, India and Russia, where a large proportion of students are female and are the most affected, with addiction levels higher than 8 and a mental health score lower than 6.



▼ Reflection

With the data set we were able to give answers to interesting questions and to make known the behavior of students regarding the use of social networks and the impact it can have, it was found that a large majority of students have addiction to them and brings them problems from mental health, academic performance and interpersonal relationships. It was also found a point to make a more comprehensive analysis where a group of students recorded that they have no problems with their academic performance and sleep less compared to young people who have academic problems and are below the hours of sleep of the previous group.