

Behind the Screen : The Damaging Effects of Algorithmic Bias on social media.

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Abstract – Over the last two decades the usage and accessibility of social media platforms have consistently increased with the rise of smartphones and the development of mobile apps. People can access social media platforms from anywhere, anytime, making it easier to stay connected and engaged. There is a growing social pressure to stay connected online, with many people feeling the need to keep up with the latest news, trends, and updates from their friends and family. Each platform offers its own unique features and benefits, social media algorithms have become more advanced, providing users with personalized content that is tailored to users' interests and preferences. People all around the world are spending hours daily on different social media platforms. This study aims to investigate the impact of excessive social media use on users' mental and physical health, addressing the persistent concerns about this issue. It examined the frequency of social media use and its effects on users' mood and health across different professions and age groups. It highlights the importance of individuals being aware of their social media usage and its potential impact on their well-being. Policymakers, healthcare professionals, and social media platform providers can use these findings to promote responsible social media use and ensure users' well-being.

Key Words- Cyberbullying, Harassment, Data preprocessing, In-depth visualization, Digital marketing.

I. INTRODUCTION

In 2005, about 5% of Americans used at least one social media platform, in 2021 72% of Americans use social media. That is an increase of 67% over a span

of 16 years. People desire to be on various social media platforms like Twitter, Instagram, LinkedIn, Facebook, TikTok, YouTube, Snapchat, WhatsApp is their ability to stay interconnected with their online community. People use social media to network or communicate with others, form entertainment, self-expression, and get information. The fear of missing out drives people to spend more time on social media to stay up to date on current events.

It is estimated 4.5 billion out of 7.8 billion people worldwide currently use some kind of social media platform. Social media can have a significant impact on personal productivity, both positively and negatively. Social media can be a valuable tool for networking, being current with news, and finding inspiration for creative projects. On average people spend two and half hours on social media daily, which is about seventeen and half hours a week. Nevertheless, excessive social media use can lead to distractions, decreased attention span, and reduced productivity. Applications have a constant stream of notifications and updates, which can be distracting, making it difficult to stay focused on important tasks and making them unproductive. Social media can also contribute to procrastination, people may find themselves scrolling through their feeds, consuming information that is not relevant to their work or personal goals. This can lead to a sense of guilt and frustration as individuals realize that they have wasted valuable time that could have been spent on more productive activities. This study aims to investigate the connection between social media usage and its impacts on peoples' personal lives. Personal handheld devices and the widespread use of social media platforms have caused people to spend more time on their smartphones, leading to concerns about the impact of social media on emotional, mental, and physical well-being. There were over 100 different social media platforms in use. However, the exact

number is difficult to determine, as new platforms are constantly emerging, while others may fall out of use or merge with other platforms. Additionally, the definition of a social media platform can vary, with some platforms that are primarily messaging apps or online forums also considered to be social media platforms.

II. RESEARCH PROBLEM AND MOTIVATION

This study aims to investigate the connection between social media usage and its impacts on peoples' personal lives. Personal handheld devices and the widespread use of social media platforms have caused people to spend more time on their smartphones, leading to concerns about the impact of social media on emotional, mental, and physical well-being. There were over 100 different social media platforms in use. However, the exact number is difficult to determine, as new platforms are constantly emerging, while others may fall out of use or merge with other platforms. Additionally, the definition of a social media platform can vary, with some platforms that are primarily messaging apps or online forums also considered to be social media platforms.

The effects of spending an extended period on social media are not considered when users access social media. Even though social media has been around for years, for instance Myspace launched in 2003 and has gained great popularity amongst the public from 2005-2008. However, people would depend on personal computers to get online and interact with others. With the creation of personal handheld devices, it gave people the opportunity to access social media any and everywhere. It wasn't like social media didn't exist before smartphones, but they accelerated their popularity. The downfall of Myspace allowed the opportunity for new companies to emerge to maximize their rise. [\[4\]](#)

The combination of the new social media platforms and rise. Digital marketing uses different digital channels to promote products, services, or brands. It includes a wide range of tactics and strategies meant to reach a target audience by using digital channels such as search engines, social media, email, mobile apps, websites, and other online platforms. Through detailed analytics, digital marketing enables businesses to reach a target demographic, communicate with a larger audience and track the effectiveness of their marketing efforts. It has become an essential aspect of modern marketing, and its importance is only likely to continue growing as more

consumers turn to digital channels for their purchasing decisions. Instagram is one of the most popular social media platforms in the world, and it has become an important tool for digital marketing. There are several ways that digital marketing is creating a business account, posting content, influencer marketing, Instagram ads and shopping. Social media has become an integral part of modern life, with billions of people around the world using social media platforms for a variety of purposes. The benefits of social media are connecting with others, sharing information, building communities, marketing, business, education, learning, entertainment.

Social media has a range of benefits that have transformed the way people connect, share information, and engage with the world around them. However, it is important to use social media responsibly and be aware of potential risks such as cyberbullying, addiction, and misinformation. While social media has many benefits, it can have potential consequences like cyberbullying, privacy, security, polarization, online fraud, and misinformation. Social media can provide a platform for bullying, harassment, and abuse, which can have serious psychological and emotional consequences for the victim. While social media has many benefits, it is important to use it responsibly and be aware of the potential consequences, both positive and negative. It is important to stay informed about the latest developments and trends in social media, and to take steps to protect yourself and others from potential risks. This paper will focus on whether social media can be harmful to mental health or considered addictive. Social media can be addictive, with users spending increasing amounts of time on social media platforms, which can impact their mental and physical health, as well as their relationships and work productivity. Smartphones have created a feature that is built into devices that is meant to measure the amount of time people spend on their personal devices and to give them a weekly summary of how much time they have spent on different applications.

This project aims to investigate the relationship between social media usage and its consequences on individuals' private lives using Kaggle's Social Media Influence dataset.[\[8\]](#) Our research will provide insights into the implications of social media usage on individuals' personal lives and highlight the need for strategies to mitigate the potential negative impacts on mental and physical health.

This research is going to examine and analyze a dataset to answer the following questions:

1. How long do people typically spend on social media in a day?
2. How does social media usage impact users' mood?
3. Which community members use social media platforms more frequently?
4. Do individuals blame social media for compromising their own health?
5. Which profession has the highest likelihood of having users on social media?
6. Are people prepared to give up social media in return for faster professional advancement?

The research will be conducted over a span of 12 weeks. First, a dataset will be chosen then it will be cleaned and preprocessed to prepare it for analysis. The research will examine previous and new trends to establish a relationship. Once the data was gathered and cleaned, visualizations were created to show the information that was researched.

III. LITERATURE REVIEW

Social media has become an integral aspect of daily life, used for everything from shopping to emailing, learning, and conducting business. Social media is a key factor in how individuals are changing their lifestyles. Social media comprises blogging and social networking services that enable quick connections between users. Journalists and their organizations have had to walk a tightrope ever since social networking networks like Twitter and Facebook became important instruments for news. For the people, visiting these locations is now part of their daily lives. The fundamental definition of social media is "the numerous, comparatively cheap, and widely available electronic tools that make it possible for anybody to post and access information, work together on a project, or develop relationships." [6]. Mobile devices and interactive social networking sites like Twitter, Myspace, Facebook, and Orkut are all around children as they grow up, making social media an essential part of their lives. The way that young people interact with their parents, friends, and technology is changing because of social networks. There are two outcomes from social networking. Positively, social networks can serve as priceless resources for professionals. They accomplish this by helping recent graduates' market their abilities and look for job possibilities. Social networking websites can also be utilized effectively for networking. On the downside, there are a lot of threats on the internet that are connected to online groups. One of the concerns is cyberbullying, which is a form of harassment carried out using

technology and then comes addiction to social media. [14]

There are impacts of social media on various fields, which include social media impacts on education, business, society, and youngsters. Impact of social media on education: Ninety percent of college students utilize social networks, according to a study of earlier data. Little communication devices have been introduced thanks to technology, and we may use these devices to access social networks from anywhere at any time. Examples of these gadgets include pocket computers, laptops, iPads, and even basic mobile phones. Social media has been used as an innovative method of education. Instead of learning how to utilize these media for good, students should be taught how to use them in a better way in educational settings where they are not simply being used for texting or chatting. Several inappropriate pieces of information were posted in some of the scenarios, which could have steered the pupils in the incorrect direction. And Due to social media, students are less likely to engage in face-to-face conversation. [6]

Impact of social media on youngsters: social media has evolved into a modern set of hip tools for engaging youth. Social media is a major part of many young people's daily lives. Children use a variety of media and technologies every day to converse and communicate with their friends and groups. In previous years, it was seen that youths exclusively kept in touch with their friends and groups at schools and universities. Yet, in today's world, young people use social networking sites, instant messaging, etc. to communicate with both known friends and strangers. This study applauds the fact that young people and students are more focused and connected. Teenagers increasingly utilize the internet, mobile devices, and online games to interact and exchange information across the nation. [6]

One of the most prevalent mental health diseases and a major contributor to disability globally is depression. [1] Young adults and adolescents in the USA are most likely to experience it, with 13% of those aged 18 to 25 reporting at least one major depressive episode in the previous year and 6% of those aged 25 to 29 reporting two or more symptoms in the previous month. Even though some studies reveal a connection between using social media and depression symptoms, other studies have cast doubt on this hypothesis. The following seven codes—listed from most to least frequently—are linked to the perceived negative effects of social media: (1) exposure to negative content; (2) social comparison; (3) diversion from real life; (4) detrimental effects on

relationships; (5) judgment; (6) decline in self-worth; and (7) fear of missing out . Exposure to unpleasant content was the most frequently cited perceived negative consequence of social media. [16]

IV. INTRODUCTION TO THE DATASET

The dataset we selected “Social Media Influence” is retrieved from Kaggle. [8] This paper concentrates on the impact of social media usage on the different age groups of society. The dataset provides information about people’s usage of social media with respect to their age, education, occupation, and few more details regarding their relationship with the social media. It includes information such as age, how often they use social media, how often the social media affects their productivity, how often they lose the sleep due to being online, their field of study, type of settlement and the time they have started used social media . The attributes fall into the categories of all the four data types – Nominal, Ordinal, Interval and Ratio.

V. ARCHITECTURE

Python and tableau are the two technologies used to find the answers to research questions. While tableau is used to provide appropriate visualizations for responding to the research questions, Python is used to preprocess the data.

Python : Python is a popular computer programming language used to create software and websites, automate processes, and analyze data. Python is a general-purpose language, which means it may be used to make many various types of applications and isn't tailored for any issues. Its adaptability and beginner-friendliness have elevated it to the top of the list of programming languages in use today. A data mining approach called data preprocessing entails putting raw data into a comprehensible format. Real-world data is frequently inaccurate and lacking in specific behaviors or trends. It is also frequently inconsistent and incomplete. Preprocessing data is a tried-and-true technique for handling these problems. Raw data is prepared for further processing through data preparation. The dataset is incomplete, noisy, and inconsistent. After processing the data, the dataset is converted into a suitable format to perform visualizations. [7]

The following steps are used to acquire the results by setting up the project and preprocessing the selected dataset.

Importing necessary libraries: The code starts by importing the necessary libraries, including pandas for working with data, numpy for numerical operations, and matplotlib.pyplot for data visualization.

Loading the dataset: The next step is to load the dataset from a CSV file using the pandas read_csv() function. The dataset is stored in a pandas dataframe named data.

Displaying few records: The head() function is used to display the first five records of the dataset.

Handling missing values: The isnull().sum() function is used to check for any missing values in the dataset, and the fillna() function is used to fill in any missing values with 0.

Removing duplicates: The drop_duplicates() function is used to remove any duplicate records from the dataset.

Encoding categorical variables: The LabelEncoder() function from the sklearn.preprocessing library is used to encode categorical variables in the dataset. The encoded data is saved in a new CSV file named "Cleaned_survey2.csv".

Printing the shapes of the training and testing sets: The shapes of the training and testing sets are printed using the shape attribute. These shapes indicate the number of rows and columns in each dataset.

Tableau : Tableau is a platform for business intelligence, data analytics, and data infrastructure that was developed to make it easier to make decisions based on data. Raw data may be streamlined quickly and efficiently by using a BI tool like Tableau. For many people who aren't programmers or computer scientists, these enormous data sets are incomprehensible. By creating a dashboard with visual representations of various raw data sources, Tableau streamlines data analysis. Users specify the reports they wish to view or download, and Tableau BI software builds a custom dashboard based on the objectives and specifications set out by their organization. [3]

VI. APPROACH FOR THE PROJECT

This article delves further into the facts and examines how these descriptive parts of the data relate to one another, which aids in better describing patterns and trends. The first thing that was done to the dataset before analysis was to clean it up to make it more suited for programming languages. Python was used for this work, which involved the subsequent steps: identify and correct inaccurate, damaged, duplicate, or incomplete data points in the dataset, transform the data into a more usable format, such as converting categorical variables into numerical ones or scaling variables to have similar ranges, checking the dataset for null values, replacing any null values with suitable values so as not to affect the entire dataset, and combining repeated data in a single column into a single value. After the above step, the data is clean and ready to be fed into data algorithms.

Data cleaning and preprocessing: Preparing a dataset for analysis requires several crucial stages, including data cleansing and preparation. Data cleaning in the context of the Kaggle Social Media Impact dataset is locating and fixing incorrect, faulty, duplicate, or incomplete data points. Preprocessing, on the other hand, entails altering the data into a more useful format, such as scaling variables to have similar ranges or changing categorical variables into numerical ones[18]. For our project : Using Python libraries to identify and correct inaccurate, damaged, duplicate, or incomplete data points in the dataset. Transform the data into a more usable format, such as converting categorical variables into numerical ones or scaling variables to have similar ranges.[9]

Exploratory data analysis: Exploratory data analysis is the crucial process of doing preliminary analyses on data to find patterns, identify anomalies, test hypotheses, and double-check assumptions with the aid of summary statistics and an outcome can be statistically estimated, modeled, or shown to indicate the likelihood of specific events[18]. For our project : Perform statistical and visual analysis to understand the relationships and patterns in the data. Identify any outliers or anomalies and gain insights into the data. [5]

Data modeling: Diagramming data flows is the process of data modeling. A diagram of the data flow into and out of the database is the designer's first step when developing a new or alternative database structure. To effectively meet the needs for data flow, this flow diagram is used to specify the characteristics of the

data formats, structures, and database handling functions. The data model continues to exist after the database has been created and made available as the documentation and rationale for why the database was created and how the data flows were planned[15]. For our project : We Created mathematical models or algorithms to make predictions or gain insights from the data. Regression analysis can be used to find the relationship between a dependent variable and one or more independent variables. [5]

Data visualization: The depiction of data using typical graphics, such as infographics, charts, and even animations, is known as data visualization. These informational visual representations make complex data relationships and data-driven insights simple to comprehend. For our project : Use Tableau to create interactive and visually appealing dashboards and reports to present the insights and results from the data analysis in an easily understandable format.

Communicating results: Display the insights and results obtained from the data analysis to stakeholders clearly and concisely.

VII. RESULTS

1. How long do people typically spend on social media in a day?

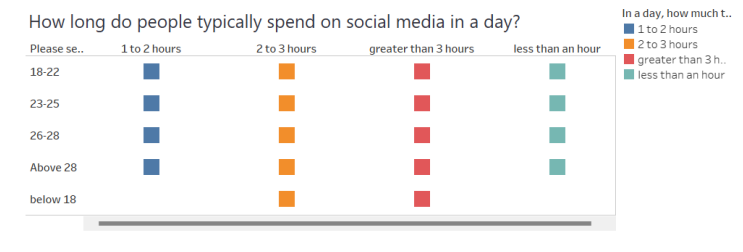


Fig.1. Chart showing how long people spend time on social media in a day

Our comprehensive Tableau visualization digs into the average time people spend on social media platforms, factoring in age and online usage habits. Generally, folks spend around 1-2 hours per day on social media, but sometimes, people log more than 4 hours daily on these platforms, a trend that cuts across all age groups.

Looking at the data, we see that younger age groups—particularly those between 18 and 28+—tend to spend more time on social media than older age groups. This might be because social media is more deeply woven into young people's everyday lives.

Moreover, our visualization reveals that people who admit to staying online longer than they planned often end up using social media for extended periods each day. This suggests that excessive social media use can make it harder to manage time effectively, potentially leading to an imbalanced distribution of time between online and offline activities.

In conclusion, this in-depth Tableau visualization underscores the importance of using social media mindfully and finding the right balance between engaging in online conversations and devoting time to offline pursuits. By recognizing these trends and their potential effects, people can strive to maintain a healthier relationship with social media and ensure a more balanced lifestyle.

2. How does social media usage impact users' mood?

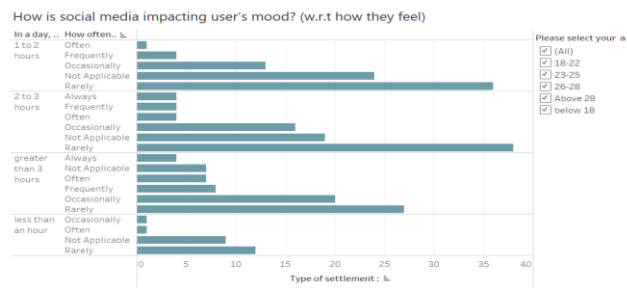


Fig.2. Chart showing how social media is impacting the user's mood w.r.t how they feel

This detailed visualization delves into how social media impacts users' emotional health, examining factors like location, age, and time spent on various social media platforms. Our research shows that folks in metropolitan areas are more likely than those in rural areas to experience negative emotions offline, such as sadness, irritability, or anxiety. This might stem from the faster-paced, more stressful urban lifestyle, and increased social media use in these areas.

After closely analyzing the data, we discovered that younger age groups generally report higher negative emotions when offline, with this effect gradually diminishing as they age. Younger people might have a greater emotional dependence on their online interactions due to the more prominent role social media plays in their lives.

The visualization also highlights a strong connection between users' emotional health and the amount of time they spend on social media. Specifically, people who spend over 4 hours daily on social media are more

likely to feel lousy offline. This suggests that excessive social media use may lead to emotional imbalances and could potentially harm users' overall well-being.

To foster emotional well-being, this comprehensive visualization emphasizes the importance of being mindful of one's social media use and finding ways to balance online and offline activities. By becoming aware of these patterns and their potential effects, people can take steps to establish healthier interactions with social media, promote better emotional health, and ensure a more balanced lifestyle.

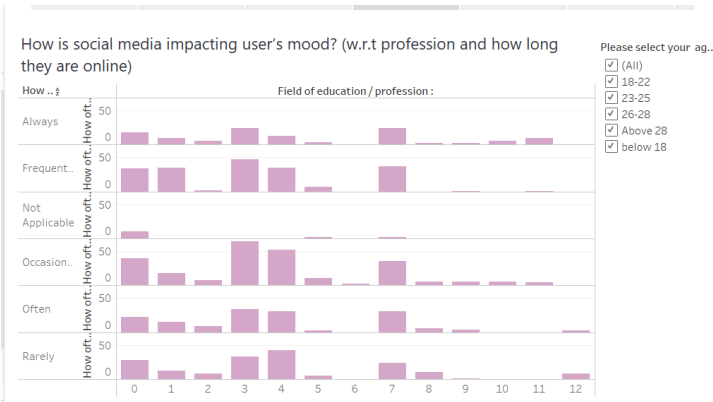


Fig.3. Chart showing how social media is impacting the user's mood w.r.t their profession and how long they are online

This in-depth visualization delves into the relationship between social media usage and users' emotional well-being, considering their field of education or profession. Our findings show that the frequency of negative emotions linked to social media use differs across various professions. Interestingly, folks in the healthcare and education sectors report experiencing negative emotions less often compared to those working in media and creative industries. This might be because healthcare and education professionals are more focused on their immediate tasks and interactions, while media and creative professionals may rely more heavily on social media for inspiration, networking, and validation.

Moreover, our analysis reveals that respondents who admitted to staying online longer than they initially planned were more likely to experience negative emotions when offline. This suggests that losing control over time spent on social media could contribute to emotional imbalances, potentially affecting professionals' overall well-being and productivity.

In conclusion, this thorough visualization highlights the importance of professionals being mindful of their social media use and taking proactive steps to balance their online and offline activities for better emotional well-being. By understanding these patterns and their potential consequences, individuals across various fields can cultivate healthier relationships with social media, improve their emotional health, and maintain a more balanced lifestyle, ultimately leading to increased productivity and job satisfaction.

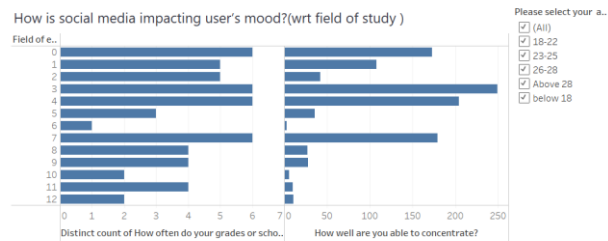


Fig.4. Chart showing how social media is impacting the user's mood w.r.t their field of study

This thorough visualization explores the influence of social media usage on users' focus and academic performance, considering factors like their profession and age. Our findings show a notable link between users who reported facing challenges with their grades due to their online activity and those having trouble concentrating. This suggests that excessive social media use may contribute to shorter attention spans and the inability to focus effectively on academic tasks.

Additionally, our analysis reveals that the relationship between social media usage and academic performance isn't consistent across different fields of education or professions. In some disciplines, social media might offer opportunities for networking, information sharing, and collaboration, leading to improved performance. On the other hand, for other disciplines or professions, excessive social media usage could act as a significant distraction, negatively impacting concentration, and academic outcomes.

In conclusion, this in-depth visualization emphasizes the importance of striking a balance between online and offline activities for better academic performance. By understanding the connection between social media use, concentration, and academic success, individuals from various fields can take steps to build healthier relationships with social media, optimize their attention and focus, and ultimately achieve better

academic results. Adopting a balanced approach to online and offline activities can not only help improve academic performance but also contribute to overall well-being and personal growth.

3. Which community members use social media platforms more frequently?

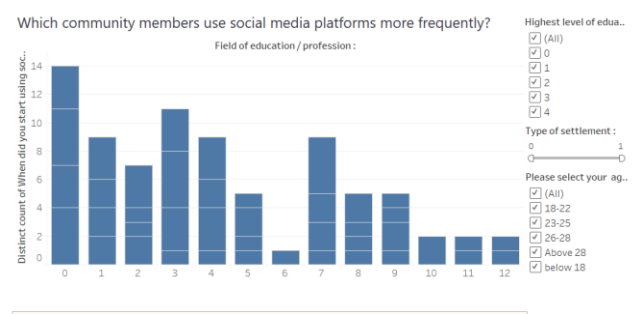


Fig.5. Chart showing the frequency of social media usage w.r.t community.

This in-depth visualization delves into the various factors that shape social media usage patterns among diverse community members. One key insight is that individuals working in media and creative industries tend to start using social media at a younger age, which could be due to the greater relevance of social media in these fields for networking, inspiration, and exposure.

Furthermore, the visualization shows that social media usage isn't uniform across demographic factors like the type of settlement and education level. For example, individuals in urban areas may rely more heavily on social media for information, networking, and social connections compared to those in rural areas, where traditional community bonds might still play a more prominent role. Additionally, people with higher education levels might use social media differently, possibly engaging in more specialized online communities and using platforms to share knowledge and expertise.

In summary, this comprehensive visualization emphasizes the importance of being aware of one's social media usage and making deliberate choices that align with personal goals and values. By understanding the factors that influence social media consumption and recognizing the diverse usage patterns among various community members, individuals can make more informed decisions about their own social media habits. This awareness can help them cultivate healthier relationships with social

media platforms, find a balance between online and offline activities, and ultimately lead to improved well-being and personal growth.

4. Do individuals blame social media for compromising their own health?

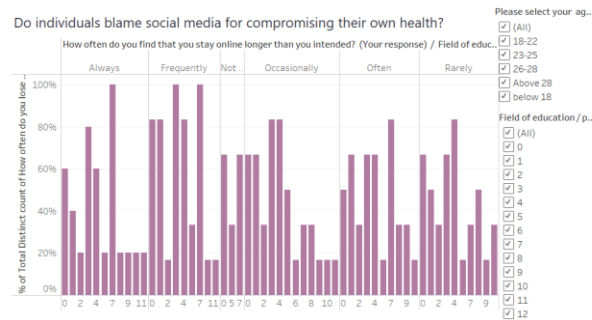


Fig.6. Chart showing how many individuals blame social media for compromising their own health.

This comprehensive visualization delves into individuals' perceptions of the impact of social media on their health, specifically focusing on the relationship between social media usage and sleep deprivation. Our findings reveal that respondents who acknowledged staying online longer than initially planned were more likely to report losing sleep due to their online activity. This suggests that excessive social media use, particularly when it extends beyond intended durations, may contribute to sleep disturbances, and potentially harm overall health and well-being.

Furthermore, our analysis shows that the relationship between social media usage and sleep loss varies across different fields of education and professions. For instance, individuals in highly demanding or competitive industries might be more prone to sacrificing sleep to stay connected or updated via social media. On the other hand, those in professions with more structured schedules or less emphasis on social media may experience fewer disruptions to their sleep patterns.

In conclusion, this in-depth visualization emphasizes the need for individuals to be mindful of the potential negative impacts of social media on their health and well-being. By understanding the connection between social media use and sleep disturbances, users can take proactive steps to create healthier relationships with social media, establish boundaries between online and offline activities, and prioritize self-care. Adopting a more balanced approach to social media consumption

can not only help mitigate the risk of sleep deprivation but also contribute to overall well-being and improved quality of life.

5. Which profession has the highest likelihood of having users on social media?

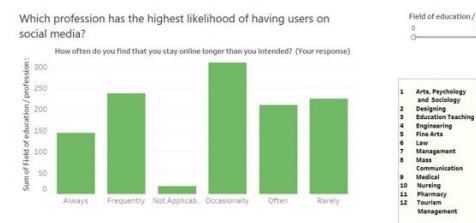


Fig.7. Chart showing what profession is more likely to have users on social media.

The visualization examines the correlation between various professions and their likelihood of having users on social media who tend to stay online longer than initially intended. Among the analyzed professions, those working in the Mass Communication industry exhibited the highest likelihood of this behavior, followed closely by professionals in management. The relationship between social media usage and the profession is further influenced by the individual's field of education. A notable observation is that those working in the healthcare and education sectors reported spending extended periods online less frequently as compared to their counterparts in media, creative industries, or management. This difference could be attributed to the nature of their job, demands on their time, or perhaps a higher level of awareness about the potential risks of excessive social media usage.

As the visualization highlights these patterns, it underscores the significance of being conscious of one's online behavior and its potential impact on personal and professional life. It is crucial for individuals to make informed choices when it comes to time spent on social media and ensure that these decisions are in line with their goals, values, and well-being.

This analysis can serve as a valuable resource for organizations and individuals alike, encouraging awareness of the risks associated with excessive social media usage. Employers can use this information to promote a healthier work-life balance and implement support systems to help employees manage their online presence effectively. Similarly, individuals can reflect on their online habits and take proactive measures to minimize the negative effects of excessive

social media use on their mental health, relationships, and overall quality of life.

VIII. SUMMARY

This study has revealed there is a direct correlation between social media use and an individual's productivity. Age has a huge impact on social media use, as different age groups tend to use social media platforms in distinct ways. Younger age groups tend to adopt new social media platforms more quickly and use them more frequently than older age groups. Teens and young adults tend to use platforms such as Snapchat and TikTok, primarily for socializing and entertainment[13]. While older age groups may prefer Facebook or LinkedIn, staying in touch with family and friends or professional networking. Tech literacy is an important consideration, as social media has largely been in the past two decades. Youthful teens have been using these platforms and are able to adapt more easily compared to their older peers. Younger age groups are tech-savvy and comfortable with new technologies. Older age groups are not as technically advanced and need more support and guidance to effectively use social media. Profession affects social media use because of the distinct needs and preferences of working professionals. They use social media to network with other professionals in fields such as business, law, and medicine for potential employers or clients. LinkedIn is designed for professionals to recruit potential candidates for different career paths. A person's profession will determine their socioeconomic status, which impacts their access to technology or number of devices. People from lower socioeconomic backgrounds may have limited access to technology and internet connectivity, due to their financial situation. To help those who need access to the internet but cannot afford it, there have been programs set up to accommodate low income families to ensure they have access.

Social media can have both positive and negative impacts on an individual's mental health. Social media helps people connect with others, whether they are far away or difficult to reach in person. It helps people feel a sense of community or support, which can help reduce the feelings of loneliness. Social media platforms where people can post about their daily lives for their peers to see, and seek validation which can

boost self-esteem and improve his, her, their, etc. mood. However, these platforms can negatively impact a person's self-esteem because what is on social media is not real. Cyberbullying takes place on social media platforms that lead to negative mental health outcomes such as anxiety, depression, and low self-esteem[11]. Social media has created a culture of comparison, where people may feel pressure to present a perfect image of themselves and compare themselves to others can lead to negative feelings such as jealousy, insecurity, and low self-esteem. Social media can be addictive, leading people to spend excessive amounts of time on these platforms and neglect other important areas of their life. This issue can lead to feelings of guilt, shame, and a decrease in overall well-being.

IX. FUTURE WORK

Moving forward, we're stoked about exploring these ideas for future work, considering our research problem and motivation:

Diving into social media's impact on work-life balance and career moves: We want to find out if spending too much time on social media is stopping people from moving up in their careers. Also, we're curious to see if users are ready to cut back on social media time for career growth. This will help us understand where social media stands in people's professional priorities.[10]

Testing the effectiveness of digital wellbeing tools: As phone makers roll out features to help us manage social media use, we plan to check how well these tools work. We hope to find out if these tools really help users strike the right balance between online and offline lives.[2]

Measuring the success of teaching responsible social media use: We're interested in discovering whether education programs or workshops on responsible social media use make a real difference. Our goal is to figure out the best ways to encourage healthy online behavior for all ages and professions.

Studying the role of social media algorithms in mental health: We can't ignore the algorithms driving our social media feeds. Our future research will explore how these algorithms contribute to addictive behaviors, social comparison tendencies, and negative emotions that come from endless scrolling [1] [17].

Finding ways to fight social media's negative effects: We plan to use our research to come up with strategies that reduce social media's potential harm to emotional, mental, and physical well-being. This info will be super helpful for individuals, companies, and policymakers looking to promote healthier relationships with social media[12].

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