A Study into the Disruption of Social Media Platforms on Social Gatherings and Public Places

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Abstract—Web 3.0 through social media (SM) has changed user experience and attention on the Internet enabling the generating of personalized content. Numerous studies have been undertaken on the dual impact of SM on education, and academic performance as well as the factors that influence the use of SM. However, the disruption of SM platforms in public and social gatherings has not been investigated adequately as SM platforms evolve. To instantiate this research, quantitative research methodology was used to investigate the reasons, effects, economic and social factors, and feasible measures for the use of SM platforms in social and public gatherings. The study draws its sample from a selected higher education institution (university and college) in the North West Province, South Africa. The study utilized digital questionnaires and 70% were recorded from the population size of 375 students. The data analysis and interpretation were done using Statistical Package for Social Science (SPSS) involving descriptive and inferential statistics. The research findings indicate that COVID-19 and technological improvements were the main reasons for SM use in gatherings which mostly affects interpersonal communication and personal identity. The finding also suggests that the regulations of COVID-19, the advancement of technology, political unrest, and economic instability are the pioneer factors that accelerate the use of SM. Results show SM disruption programs together with digital detox and self-control are feasible measures to curb the use of SM platforms in social gatherings and public places (settings).

Keywords-Social media; Disruption; Web 3.0; Facebook; SM platforms; COVID-19.

I. INTRODUCTION

Web 2.0 (the second generation of the World Wide Web that evolved to support social interaction in the digital space) has significantly changed traditional settings and participation [1]. Social media (SM) platforms (Facebook, X formally known as Twitter, Instagram, and WhatsApp) disrupt attention, reduce face-to-face interaction, and promote the absence of direct communication and intellectual engagement [2]. According to Bhandarkar and Pandey [3], SM deteriorates cognition and leads to the destruction of attention and later negative effects on one's day-to-day physical and social activities. A study was done by Bhandarkar and Pandey [3] appends on Subramanian [2] findings that the more people get attached to their smartphones the less they will be socially and directly active. Human behaviour is now fast-paced, people no longer wait and greet one another when they are with their friends and acquaintances [2]. SM connects us with long-lost friends, recent trends, and daily news feeds and allows us to market our products and services digitally [4]. However, the SM does not maintain much of the traditional participation and association we once had before the revolution of the World Wide Web (WWW) rather it has significantly changed our day-to-day traditional settings and participation [1]. The study investigates the disruptions of SM use in social gatherings and public settings and recommends feasible activities to respond to SM use in gatherings. The rest of the paper is arranged as research methodology, literature review, problem statement, data analysis and discussion of the findings, research summary and future study, implications of the study, and conclusion.

II. RESEARCH METHODOLOGY

The main two research types include quantitative and qualitative. Quantitative research quantifies data collected to provide unambiguous results. The numerical data collected can be virtualized by using graphs and tables. According to Goertzen [5], quantitative research analyses structured data that can be modeled numerically. This study needs to find out how to use figures to deduce relationships, the context of the setting, and SM use. Computer applications including Statistical Package for Social Science (SPSS) allow manipulation of data to provide numerical results. Therefore, SPSS was used as a data manipulation technique in this study. The quantitative method is best for analyzing data gathered through questionnaires as the respondent is guided by the questions which the researcher wants answers for.

A. Research method

Quantitative research uses pre-programmed parameters for questionnaires and the survey results can be represented numerically. The method is relevant to building accurate and quantifiable results that can later be modeled with statistical analysis for experiments to provide reliable numeric results on the study [5]. Allen and Titsworth [6] append on Goertzen's [5] research that quantitative research provides practical and user-friendly tools to apply statistics. Therefore, in this study, the quantitative research method was used since the study was mainly concerned with investigating the disruptive nature of SM platforms in social gatherings and public settings.

B. Data source

The researchers to build an understanding of a subject concern need to identify sources of data from which a study will be relied on to make informed decisions. Primary and secondary data were used in this study. The primary data sources include questionnaires, surveys, experiments, and observation. For this study, questionnaires were used as a means of primary data source. According to Hox and Boeije [7], whenever primary data is collected new data is added to a store of knowledge. Academic journals, articles, and books are the sources of secondary data. Secondary data collection is the use of existing findings and research data to answer the questions of a new study [8].

C. Data collection method

The study used standardized questionnaires as a data collection instrument, which was developed through Google Form. The standardized questions were vital that they helped in identifying and counting the frequency of certain occurrences, behaviour, experiences, and opinions of the respondent. Google Forms allowed the researchers to pre-program closed-ended questions that the respondents needed to answer from a list of possible replies. Rowley [9] describes questionnaires as a series of open and closed questions that the researcher invites the respondents to answer. The Uniform Resource Locator (URL) was therefore sent to invite the targeted/sample population of students in the selected high education institutions (HEIs) in Mafikeng through WhatsApp, Email, and Facebook to attain a greater sample size. Online questionnaires are effective and efficient in that the sample population can be reached less costly as the researcher does not have to take field trips [10].

D. Questionnaire format

Table 1 below represents the layout/structure of questionnaires categorized into sections. The respondents first provide their demographic information and consent to continue with subsequent study sections (section 1 – section 5).

TABLE I. QUESTIONNAIRE STRUCTURE

Section 1	Question the respondent about the demographical information. This includes age, education, country, race, province and city.
Section 2	Question the respondent about their understanding of SM networks and their primary uses.
Section 3	Question the respondent about the disruption of SM use in social gatherings
Section 4	Question the respondent about the effects of SM use when in social gatherings
Section 5	Question the respondent about the feasible measures that can be put in place to encourage users to avoid using SM in social gatherings.

E. Population and sampling method

A sample is a subset of the population chosen to represent the entire population affected by the study. Acharya and Prakash [11] insist that the effective strategy is to investigate the problem that affects the whole population. When a problem that affects the whole population is known, representation can be deduced in the form of a sample that meets the characteristics of the problem domain noted from the entire population. The following formula was introduced by Krejcie and Morgan [12] was used in this study to calculate the sample size:

$$s = X^2 NP(1 - P) \div d^2(N - 1) + X^2 P(1 - P).$$

s = required sample size.

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).

N = the population size.

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (.05).

Figure 1. Krejcie and Morgan (1970)

The Table 2 matrix which was developed by Krejcie and Morgan [12] provides pre-calculated sample sizes for populations of different sizes. This study targeted the total population of 13 266 (11 657 from NWU Mafikeng and 1 609 from Taletso TVET College) registered students in the 2021 academic year. According to the table matrix, the sample target was 375 participants, and 263 were involved. Below, Table 2 shows the sample targets of different population sizes as introduced by Krejcie and Morgan [12].

TABLE II. THE SAMPLE SIZE

Table for Determining Sample Size from a Given Population

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377

The population sample size is students who are constant users of social media for academic and non-academic activities. The sample size focused on students in Mafikeng from the North-West University and Taletso TVET College with an estimated sample size of 375. The participants in the involved institutions possess the experience and information that aid the objectives of the study and a consent letter was used in the data collection. The study and its data instrument were approved.

III. LITERATURE REVIEW

This section of the study presents the existing literature studies exploring the research gaps.

A. The disruption of social media platforms in social gatherings and public places

Social media can be said to be disruptive because of its innovative processes and application in human lives. Millar and Lockett [13] describe a disruption as an innovation or change that renders the former or predecessor task

ineffective or inefficient concerning the latter. By critically examining the description of disruption by the authors about the research questions, technology brought about by Web 3.0 from Web 2.0 has severely changed SM users' behaviour. Potluri and Vajjhala [14] describe Web 3.0 technologies as the interactions of web technologies and artificial intelligence (AI) subsets, namely the representation of knowledge. Web 3.0 is a personal assistant that connects SM users with information on the Internet and practically everything [15]. Web 3.0 is the latest multimedia interface technology to the resources on the internet. It provides personalized content service to improve user experience and capabilities for collaboration, participation, and information sharing. Social networks (Facebook, Instagram, X (Twitter) or WhatsApp) run on the above-mentioned latest technology (Web 3.0) with built-in APIs (Application Programming Interface) for mobile app support [16].

The advancement or change in technology continues to divide individuals from participating physically even when they are physically connected. A study done by Oksa and Kaakinen [1] indicates that many people in social and public settings are connected but they are not. SM disruption has changed the way people ought to communicate and practice their respective values. Chukwuere and Chukwuere [17] indicated that continuous usage of SM isolates one another and changes social norms and cultures. According to Mushtaq and Benraghda [18], university students widely use SM in class which affects their personal and academic lives. Furthermore, students appear to be the most vulnerable to this challenge due to their capacity to understand and interact with recent SM technologies. During contact classes, especially in the lecture room, the probability of finding two to three students in the same row sitting with their heads facing down to their smartphones was very likely. Peper and Harvey [19] observed university students as they entered the lecturer's room, many students who entered the venue were on their phones they could not communicate with their friends since they were scrolling, texting, and clicking on their smartphones. Lau [20] states that students are likely to use multiple mediums at a time and the potential influence of SM multitasking has been poor communication and association.

B. The economic and social factors that accelerate the use of SM in public and social gathering

The latest motivation for and use of SM platforms has been caused by the 2019 pandemic. Countries around the globe including South Africa introduced measures to restrict traveling and social gatherings to respond to a deadly virus known as COVID-19 [21]. In South Africa, the Republic President (Cyril Ramaphosa) introduced methods that prohibit social gatherings of any kind, especially during alert Level 5, to contain the spread of the unprecedented virus. News feeds were channeled through social networks for enough coverage about the latest development of coronavirus. According to Liu and Liu [22], the regulations left many people with no option but to use SM to claim back their withheld right of movement and gathering. Universities across the country, including North-West University, were

using Facebook and other platforms to reach students about the development of COVID-19 and other curriculum information that is in line with national regulations. Hosen and Ogbeibu [23] state that higher education institutions realized the value of social networking sites and the need for student motivation has encouraged students to be updated with content posted on university sites to bolster learning performance. Students are now vulnerable to being on SM when they are in public spaces due to the changes in social life and teaching and learning methods [24]. The regulations isolate individuals from one another, and SM disables direct communication and participation in a physical setting. The current rate of unemployment in South Africa has contributed to social loss and low self-esteem in social settings and the affected rely on SM platforms to look for opportunities.

According to Feuls and Fieseler [25], unemployed individuals tend to use SM in social settings to cherish their social support networks and restore their dignity. Being unemployed with no means to meet basic needs affects social contact and leads to psychological problems and many believe that SM is a gateway to be socially participative. Feuls and Fieseler [25] further say employment is not only a means to meet basic needs and earn a living but also a network that facilitates the development of social relationships and human empowerment. Therefore, being unemployed diminishes social contact and leaves the affected with no choice but to have their faces down to their phones' screens to avoid being downgraded and humiliated by a conversation that may constantly divert them back to their problems. Peterie and Ramia [26] research found that some individuals who are socially distracted by SM in social gatherings have gone through the socio and emotional realities of being unemployed. Not only does unemployment affect communication in social gatherings due to anxiety and low self-esteem but the context in which communication takes place may also deprive individuals from participating as a result of interests as well as language barrier.

C. The negative effect of using Social Media platforms on social gatherings and public places

A shift from the industrial age to the information age has increased the level of dependency on digital platforms (services) to socialize daily. Krishna and Jayanthi [4] found that university students rely on information they receive on SM which limits their learning and potential research capabilities. Social networks make students to be reactive rather than proactive and that limits their understanding of a subject concern. Rithika and Selvaraj [27] study indicates that students use SM for personal reasons when they are in group discussions and topics that differ from the course work. Universities have transitioned to online learning to comply with then COVID-19 regulations and to complete the academic year, but students are not well prepared, and they continuously participate in non-academic activities that consume much of their study time [28]. Nowadays in universities, it is difficult to imagine a university student who, at least once a day, does not get to their phone for updates on social networks when he/she is engaged in

conversation [29]. The modern reality costs the students a fortune during class, and it further affects other students whom they keep on asking for information that they have missed due to their lack of concentration. According to Kolan and Dzandza [30], SM use during class affects the performance of students and later they cannot maintain scores required by funders to sustain bursaries. Disruption of SM in public and social settings hurts one's culture and values.

It is believed that colonialism has robbed us of practicing our cultures and values. But to date, SM use also has serious repercussions that are hidden and which, gradually so, distance us from having traditional engagement to maintain our value of structure constructed through our elders. Amedie [31] insists that SM use in public is depriving us of the trust people had and the comfort people always found from one another through direct communication, substituting the direct fellowship of emotional support humans once portrayed from one another with virtual connection. SM progressively segregates humans from practicing their cultures and that will later construct a cultural bomb. A cultural bomb is a situation whereby individuals seek for their own identity and by that time information and practices will be lost especially when there is less research and publication in the cultures in question. Lyu and Zhang [10] state that technological advancement in social and economic activities has without doubt implicated the culture of human civilizations. Consciousness and hermeneutics play a significant role in addressing cultural implications brought about by SM technology that rob individuals from practicing their cultures and values when they are in numbers. According to Tripathi [32], society has revolved around technological culture and antisocial beings that depend on social networks for new updates and daily trends.

D. The measures to discourage the disruptive nature of social media usage in public settings

SM continues to separate humans from traditional communication in social space. Students at institutions of higher learning, ordinary SM users, workers, and church congregants use SM as a dialogue through the power of ever-embraced technology. Very often, they tend to use SM (Facebook, WhatsApp, or X (Twitter)) when they are physically engaged in a conversation. As a result, human engagement is negatively affected. The following measures may be feasible to enlighten users of the disruptive nature of using SM platforms when they are physically engaged.

SM users must disrupt their normal routine of SM use to alleviate themselves to change a habit. Modern Application that comes with smartphones allows users to limit or stop running apps by simply setting up a smartphone to "do not disturb" mode when they are occupied [33]. Individuals are also responsible beings who need to take responsibility for their actions by setting goals for SM and the time limit as well. According to Kurniasanti and Assandi [34], 'do not disturb' applications do not have a timer to restrict the launching of an App before the time set by the user to avoid being distracted. Users can continually gain access by disabling the "do not disturb" Application and continue

getting distracted on SM in a social environment. However, one can engage one's friends and associates before a meeting that they will not be available for a certain time and put the phone on silent if the "do not' mode is not effective.

IV. PROBLEM STATEMENT

SM platforms allow users to create, post, and share information on the internet through the power of Web 3.0 technology. To date, numerous studies undertaken mostly focus on various uses of SM, its impact on social behaviour, education, and academic performance as well as the positive and negative impact, the factors that influence the usage, ethical usage, and many more [17] [35][36]. However, SM use in public and social gatherings has limited research since much of the research areas in SM are on personal level concerns rather than on social and public challenges. Very often, people tend to use SM (Facebook, WhatsApp, or Twitter) when they are physically engaged in a conversation and during social or public settings. As a result, traditional communication and human engagement are negatively affected.

Main research question

Why do students get disrupted by SM platforms during social gatherings and public settings?

The following are the secondary questions developed from the problem statement above:

- Why do many students connect to SM when they are in social and public gatherings rather than having direct communication?
- What are the economic and social factors that influence the use of SM in public and social settings?
- What are the effects of SM use in social gatherings?
- What measures can be put in place to encourage students to understand the disruptive nature of SM in public settings?

Research aim, and objectives

The study seeks to:

- Investigate the disruption of SM platforms on social gatherings and public spaces.
- Identify the economic and social factors that influence the use of SM in a public and social setting.
- Describe the negative effects of using SM platforms on social gatherings and public places.
- Recommend measures that are feasible to be put in place to encourage individuals to understand the disruptive nature of SM use in social and public settings.

V. DATA ANALYSIS AND DISCUSSION OF THE FINDINGS

In this section, the researchers discuss the results found in this research and are guided by the research objectives. The study findings are derived from the data analysis covering the descriptive analysis, correlations, and Chi-squared tests, and the discussions are backed by the existing literature.

A. *Objective 1 - To investigate the disruption of social media platforms on social gatherings and public spaces*

The study findings showed that students post and share information with their friends when they are on SM platforms. Table 3 presents that 41.1% (108) of students sign into SM platforms because they are not interested in the subject concern. Of 263 respondents, 20.5% (54) strongly agree that they connect to social networks because they are not interested in a conversation taking place during a gathering. The 3.8% and 17.1% of respondents do not agree that students sign into social networks during gathering because they are not interested in a conversation and the 17.5% (46) could not decide whether students are interested or not interested.

TABLE III.   STUDENTS ARE NOT INTERESTED IN THE SUBJECT CONCERNED

	Frequency	**Percent**	**Cumulative Percent**
Strongly disagree	10	3.8	3.8
Disagree	45	17.1	20.9
Undecided	46	17.5	38.4
Agree	108	41.1	79.5
Strongly agree	54	20.5	100.0
Total	263	100.0	

Based on the data analysis found in Table 3, many of the students signed into SM platforms because they were not interested in the subject concern in the discussion. That could be attributed to the fact that students come from different backgrounds, generations, and cultures and have different values. For example, not all students participate in extracurricular or political activities therefore a gathering that is geared up by the activities has the potential to influence a student to sign in to social media to find his/her interest. It was also found that more than a third of students (39.54%) are serviced by the personal content provided in SM which relates to their interests. The study findings conform to Balaji and Rao's [37] results that association rule mining (Application Programming Interface) finds the related patterns from data generated by users and later classifies data into user interests for easy reference and relevant user experience.
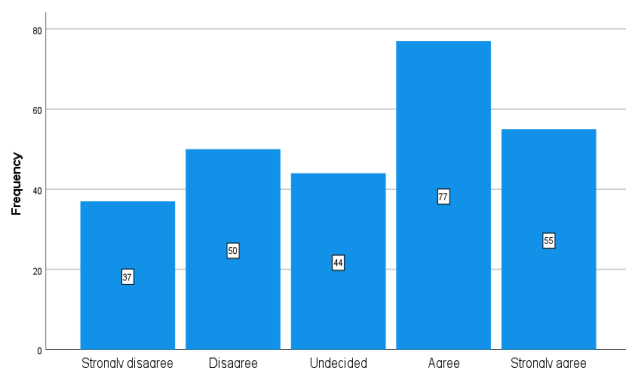
Figure 2.   COVID-19 pandemic regulation

Figure 2 shows that 77 respondents (29%) of 263 students who participated agree that COVID-19 regulations which restricted traveling and gathering of any form have caused students to sign into SM platforms extensively and even during social gatherings. 55 (21%) strongly agree that social networks were the only platforms that many students relied on during hush lockdown levels and now that regulations have been relaxed students are accustomed to using their devices in social environments. The study findings also indicate that there are only 87 (37 and 50) respondents who do not agree and that accounts for 33.08% which is lower than the percentage of students who agree, 50% (29% and 21%). Hussain [38] also found that social networks such as WhatsApp, Instagram, X (Twitter), and Facebook were the major sources of information and news feeds to the public during the early days of the COVID-19 lockdown.

In summary, the study also found that COVID-19 regulations have contributed significantly to the use of social media platforms during gatherings since students could not travel and do any form of gathering. The regulations led to an excessive use of social media. The study further indicates that there is a relationship between COVID-19 and social isolation during gatherings. From the Chi-squared test results, the accepted hypothesis was that the COVID-19 pandemic has a relationship with social isolation during gatherings. The results mean that the COVID-19 pandemic causes students to isolate themselves to avoid getting infected and they rely on their phones to connect with others.

TABLE IV.   INTROVERT AND SHY

They are introverted and shy to engage in social gatherings			
	Frequency	Percent	Cumulative Percent
Strongly disagree	13	4.9	4.9
Disagree	29	11.0	16.0
Undecided	57	21.7	37.6
Agree	96	36.5	74.1
Strongly agree	68	25.9	100.0
Total	263	100.0	

The extensive use of SM platforms has more impact on users who are introverted and shy. Some scholars have found that shy individuals are always preoccupied with their smartphones during social interactions [39]. In Table 4 the study found that of 263 respondents 96 (36.5%) respondents agreed that individuals who always sign into SM network are introverted and shy during social and public gatherings. Introvert and shy individuals find social networks as a gateway to hide or exclude themselves during social interactions and public settings. The result in Table 4 also indicates that 25.9% of respondents strongly agree with the question.

The study results indicate that most scholars believe that personality has an impact on interpersonal communication. It was found that students who are introverted and shy cannot cope with the social environment and that any social gathering causes irritation. Students with such personalities find social media platforms as social network gateways. A study by Appel and Gnambs [39] indicated that shy

individuals are always preoccupied with their smartphones during social interactions. The overall findings show that students believe that social irritation during gatherings could be a result of shyness and introversion. The results of the study therefore offer support to the existing findings that put much emphasis on the individual disruption of SM platforms rather than the effects SM usage has in social and public environments.

B. Objective 2 - Identify the economic and social factors that influence the use of SM in a public and social setting

The study found that advancement in technology influences the disruption of SM platforms in gatherings. Table 5 indicates that 5.4% of respondents (2.7% and 2.7%) disagree but 87.1% (49.8% and 37.3%) of respondents agree. Respondents who strongly agree are voluminous as opposed to those who disagree or strongly disagree. Baek and Lee [40] found that the more there are innovations in technology, the wider will be the impact on numerous societal activities. Mobile applications have background apps that store user-key-strokes each time an application is launched to provide relevant content whenever an app is launched again [41]. Advancements in technology have transitioned student's behaviour into anti-social beings.

TABLE V.   TECHNOLOGICAL ADVANCEMENT AND SMARTPHONES' NEW FEATURES

	Frequency	Percent	Cumulative Percent
Strongly disagree	7	2.7	2.7
Disagree	7	2.7	5.3
Undecided	20	7.6	12.9
Agree	98	37.3	50.2
Strongly agree	131	49.8	100.0
Total	263	100.0	

The research found that the temporary lease of the radio frequency spectrum by the Independent Communication Authority of South Africa (ICASA) (2020) had an impact on social media use [42]. The lease improved network connection and decreased data cost to improve user experience. The study further indicates that a total of 74.04% of students agree that network connection in the early days of lockdown was bad but not after the temporary lease of spectrum came into effect. It was also found that technological improvements have a severe impact on continuous social media use during social gatherings. The study found that there is a relationship between poor communication during social gatherings and technological advancements. From the Chi-squared test results, the accepted hypothesis was poor interpersonal communication is influenced by technological advancements. The results meant that technological advancements have an influence over day-to-day student communication, and it causes less interpersonal communication.

The study found that universities across the country, including North-West University, have been relying on Facebook business accounts to reach out to students about

academic information that is in line with national regulations. It was further found that most students, 86.3% (46% and 40.3%) believe that the destruction of social media in gatherings is also caused by lockdown, hence the universities were allocating mobile data to students to continue teaching and learning. The regulations left students with no option but to use SM to claim back their withheld right of movement and gathering [22].
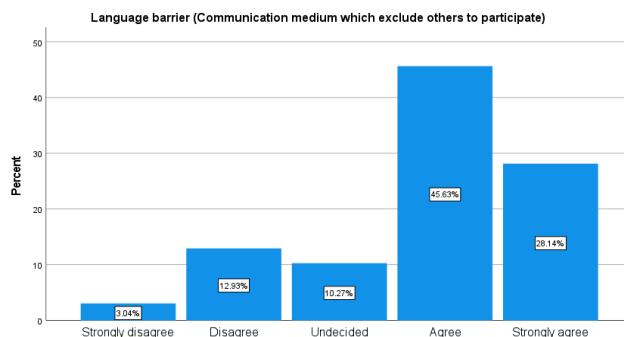

Figure 3.   Language

Language barrier emanates when one experiences some difficulties when trying to decode or encode a message during conversation. The language barrier is recently being addressed through translation and virtually revealed by the work of interpreters [43]. The study has found that language barriers influence students to be on their smartphones during social gatherings as a result of having no understanding of the language and subject concerned. Figure 3 indicates that more than two-thirds, 73% of participants (45.63% and 28.14%), agree that they switch to their SM accounts when they are not familiar with the topic and language being used in a given setting. The findings reveal that a study done by Ribeiro [43] supports these findings that students to participate in a conversation will need an interpreter to decode or encode all messages and the probability that meaning may be lost during interpretation by a third party is very likely to be lost. Language barriers prevent students during gathering who hold potentially similar interests, concepts, customs, and beliefs from directly participating with each other. In this research, there were fewer respondents (3.04% and 12.93%) who opposed the language barrier as a social factor that influences social media use in gatherings.

In summary, the language barrier was found in this study to be the most influencer of social media use in social gatherings. The finding shows that many students had identified language barrier as a main cause of communication challenges. The study also indicates that there is a relationship between poor interpersonal communication is influence by language barrier in social gatherings. The study results indicate that addiction to social media has contributed to social disruption in gatherings.

TABLE VI.   ADDICTION

	Frequency	Percent	Cumulative Percent
Strongly disagree	7	2.7	2.7
Disagree	18	6.8	9.5
Undecided	30	11.4	20.9
Agree	116	44.1	65.0
Strongly agree	92	35.0	100.0
Total	263	100.0	

Addiction is realized when one finds it difficult to deviate from engaging in certain behaviour or substance. Consumption today increases demand tomorrow [44]. From Table 6, 44.1% and 35.0% of participants agree that the use of SM disruption in gathering is addictive and hinders effective communication and collaboration. A study done by Alzougool [45] indicates that of 397 participants 38.5% were addicted to Facebook and results were associated with respondents who entertain, escape (seek distraction), and pass time when they are physically engaged. Alzougool [45] further found that 153 of 397 respondents were Facebook addicts which reflected a high percentage of the studied sample. The study established that most students use Facebook for social networks and that accounts for 82.4% of respondents. It is therefore evident that the findings in Table 6 align with Alzougool [45], and Karim and Haque [46] findings that most SM users are addicted to Facebook. Only 9.5% (2.7% and 6.8%) of respondents disagree and that figure is many times lower when compared with respondents who agree that addiction to SM platforms influences social places. Table 6 shows that most students are addicted to their phones and cannot cope well without having them in social gatherings.

C. Objective 3 - Describe the effects of using SM platforms in social gatherings and public places

The research found that the more students are signing to social networks there is less participation. Figure 3 indicates that 73.67% (42.5% and 31.17%) of students have recognized that social media use in gatherings disturbs participation and leaves no room for effective information sharing. The results are supported by Chukwuere and Chukwuere's [17] findings that SM disrupts the social lifestyle and interactions in society. The findings explicitly prove that most noticed that SM negatively affects social interactions and participation. Participation is useful, especially to parties who have never met before to exchange ideas, and life experiences and build on top of each other's ideas. On the contrary, Students are rather satisfied when they are on their phone screens and participating virtually. From the chi-squared test, the accepted hypothesis was that poor interpersonal communication is influenced by language barriers in social gatherings. The chi-squared results mean that students sign into SM because they may not understand the language being used during communication.
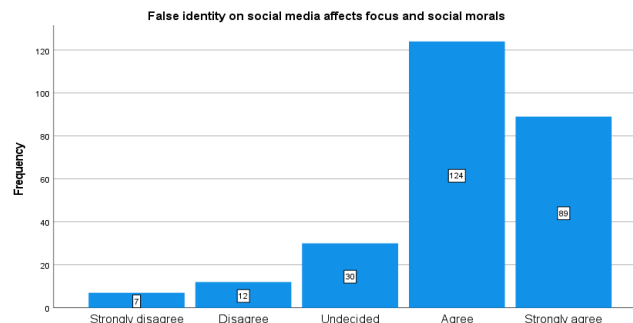

Figure 4.   Identity

The study found that most participants agree that SM changes users. Of 263 respondents 213 (124 and 89) or 80.9% participants confirmed that the disruption of SM platforms leads to false identity. Jan and Soomro's [47] findings reveal that 88% of respondents sign into social networks to make social comparisons and the study further found that 98% of the comparisons relate to upward comparison. From Figure 3 most participants 89 strongly agree that upward comparisons change the identity of SM users and later cause them to feel unfortunate and negative about themselves. The researchers also found that an increase in SM usage results in a decrease in self-esteem. False identity influences SM users to feel less privileged and be ungrateful for their current status and well-being [47] [48]. Jan and Soomro [47] further found that feeling negative about oneself has a direct impact on self-confidence and appreciation of oneself. The bar graph also shows that only 19 (7 and 12) participants (7.22%) disagree and that is the lowest number when compared with other responses. It is therefore evident that using SM platforms in gathering may later influence the user to engage in activities that are characterized by false identity and that affect self-esteem and self-confidence for personal development and self-motivation.

Students are influenced by other SM users and make social comparisons [47] [49]. Life comparison influences students to pretend to be people they are not in other to fit into a digital society. Mobile applications such as Instagram are mostly favored by students to display their beauty. Students tend to feel less capable and privileged as opposed to others on the digital social network.

D. Objective 3 - Recommend feasible measures to be put in place in order to encourage individuals to understand the disruptive nature of SM

The fourth objective was intended to identify possible measures which have the potential to assist affected students. Syvertsen and Enli [50] describe digital detox as a means to take a break from participating in SM and other online activities for a certain period and restrict the use of smartphones and digital tools. Individuals are responsible beings who need to take personal responsibility to balance risks and pleasure [50] [51]. The study also found that, according to Figure 4, a total of 87.02% (40.84% and 46.18) students accept that taking a break from participating in SM

platforms and other online activities for a certain period and restricting the use of smartphones and digital tools can curb SM platform addiction. The findings support Syvertsen and Enli's [50] research that SM and Internet users must take a break to balance risk and pleasure.
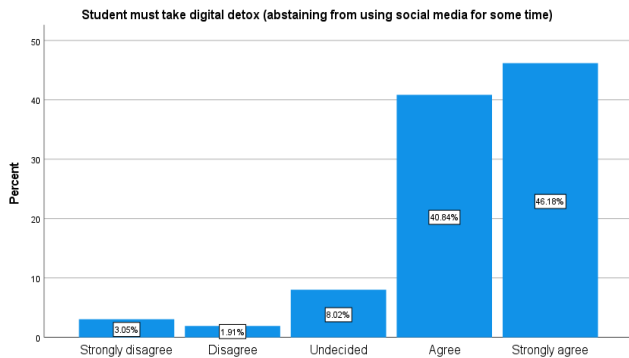

Figure 5. Digital Detox

The study has found that social media detox is a feasible recommendation for students to practice for them to abstain from using social media during gatherings. The result aligns with Syvertsen and Enli [50] and Anderson and Rainie [52] findings that Individuals are responsible beings who need to take personal responsibility to balance risks and pleasure. From the Chi-squared test results the accepted hypothesis is that peer pressure and social media disruption programs associate and can help students to alleviate social media use during gatherings. That means social disruption program has an impact on peer pressure and students can benefit more if an awareness campaign is started.

A digital detox can help students refrain from connecting to SM platforms focus on realizing their potential and rebuild their traditional and cultural norms which were not applicable on social networks. The results show that finding a new hobby can be an alternating way of detoxing and that was supported by a total of 85.5% (35.7% and 49.8%) of students who participated. New hobbies may include, among other things, sports, reading, researching about the disruption of social media, or spending time with family.

TABLE VII.   SOCIAL MEDIA DISRUPTION PROGRAMS BY THE DEPARTMENT OF COMMUNICATION AND DIGITAL TECHNOLOGIES

	Frequency	Percent	Cumulative Percent
Strongly disagree	8	3.0	3.1
Disagree	6	2.3	5.3
Undecided	26	9.9	15.3
Agree	123	46.8	62.2
Strongly agree	99	37.6	100.0
Total	262	99.6	

Table 7 shows the number of responses to the recommended measure to discourage the use of social SM platforms during social gatherings. Of 263 respondents, a total of 222 (123 and 99) (84.4%) agree that social media awareness programs have the potential to encourage communication during social gatherings. The

implementation of such programs can be from the national level by the South African of communication and digital technologies. According to the Department of Communication and Digital Technologies (2019), the mandate of the minister is to "promote constitution and its values in schools, awareness campaigns, public engagement, and dialogue". The study also indicates that respondents who disagree with awareness programs account for 5.3% (3% and 2.3%). The minister of digital technologies must design a program that is aimed at educating SM users about the impact of SM use in public places.

The study has found that most students believe that the governing party must take responsibility for the continuing SM disruption in gatherings since it is the government that approves technology that is being used in households and industries. The Chi-squared test results indicate that the accepted hypothesis was that peer pressure and social media disruption are associated.

VI.   RESEARCH SUMMARY AND FUTURE STUDY

The study used digital questionnaires to remotely invite students to participate in the study and the collected sample data is 263. Below a summarized responses to research questions.

- The respondents are made up of students from North-West University (Mafikeng) and Taletso TVET College (Mafikeng).
- The respondents use social media for creating, posting, and sharing information with friends for new updates.
- The continuous use of SM in social gatherings affects participation in group discussions and leads to false identity.
- Students sign into an SM account because the language or medium used in a group is not understood.
- Peer pressure affects students to join into the new normal. The environment of addicted SM users attracts students to fall into it.
- The lockdown regulations had caused Institutions of Higher Learning to adopt new teaching and learning and shift to online learning.
- Institutions of Higher Learning use SM platforms to communicate and share updates with the students.
- Students are attached to SM platforms as a result of online learning and lockdown regulations that prohibit gathering and traveling.
- The advancement in technology and temporary allocation of network spectrum has led to more demand for Internet connectivity and SM participation.
- SM disruption awareness programs, authenticity, and self-control are the recommended measures to mitigate SM disruption in social gatherings.

Implications of the study

The researchers in this field must use these study findings to further include another group that was not part of the

study sample. Then this study's results can be tested fairly with findings from other population groups. The focus should be shifted from researching the personal impacts of social media to resolving the damage social media creates in our societies and public places. Researchers must further incorporate both qualitative and quantitative to understand the contradictions between quantitative findings with qualitative results. The mixed approach would reflect the participants' points of view and give them a chance to raise their voices based on their experiences.

VII. CONCLUSION

The role of social media in social gatherings of students can't be underrated. In conclusion, this study sheds light on the significant impact of social media disruption on social gatherings and public places, particularly among students in higher education institutions. The findings highlight the pervasive influence of peer pressure, social comparisons, and the COVID-19 pandemic on the excessive use of social media platforms during gatherings. Individuals often resort to social media to navigate social interactions, create false identities, and seek validation, leading to potential negative consequences on self-esteem and personal development.

Moreover, the study underscores the importance of implementing measures such as digital detox programs, awareness campaigns, and promoting self-control to mitigate the disruptive nature of social media in social settings. Recommendations for encouraging individuals to understand and address the detrimental effects of social media include advocating for authenticity, self-regulation, and balanced use of digital tools.

Moving forward, future research in this field should consider incorporating a mixed-methods approach to capture a comprehensive understanding of the complexities surrounding social media use in public spaces. By exploring both quantitative data and qualitative insights, researchers can delve deeper into the nuanced experiences and perspectives of individuals affected by social media disruption. Ultimately, addressing the challenges posed by social media in public places requires a multifaceted approach that prioritizes individual responsibility, social awareness, and the promotion of healthy digital habits.

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