Distracted Minds, Declining Grades: Unveiling the Detrimental Effects of Digital Distraction on Student Academic Performance.

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***Abstract*— The widespread use of digital devices and social media platforms among students has raised concerns about the impact of digital distractions on their academic performance. This research study aims to explore the extent and effects of digital distractions on student performance in Zambian universities. A questionnaire survey was conducted among 757 students to gather data on various aspects of digital distractions, including social media usage, frequency of phone and social media checking during studying, efforts to limit device usage, time taken to refocus after distractions, notification distractions, managing distraction awareness, motivation to manage distractions, perceived impact of distractions on academic performance, self-rated academic performance, missed deadlines due to distractions, difficulties focusing on school work, and time spent on social media. The analysis of the survey data revealed that a significant proportion of students spend a considerable amount of time on social media, with over 49% of respondents reporting spending more than 120 minutes per day. Furthermore, a substantial number of students admitted to frequently checking their phones and social media while studying. These distractions were found to have a negative impact on their ability to concentrate and refocus, with an average time of 10-15 minutes required to regain focus after a distraction. Students also reported experiencing difficulties in focusing on their school work due to digital distractions. Interestingly, the study found that efforts to limit device usage and manage distractions were perceived as effective by a considerable number of students. However, there was a significant difference in perspectives based on sex, with females being more likely to report limiting device usage and managing distractions effectively. The study also revealed that students who perceived a significant impact of digital distractions on their academic performance were more motivated to manage these distractions. These findings highlight the need for educational institutions to address the issue of digital distractions and provide students with effective strategies to manage them. It is crucial to promote awareness among students about the detrimental effects of excessive digital distractions and equip them with skills to prioritize their academic tasks. Educators and policymakers can develop interventions and educational programs to foster a conducive learning environment that minimizes the negative impact of digital distractions.**

Keywords— Digital distractions, Multitasking, Academic performance, Social media usage, Smartphone use

I. INTRODUCTION

In today's digital age, the widespread use of digital devices and social media platforms has become an integral part of the daily lives of individuals, including students. While these technological advancements have brought numerous benefits and opportunities for communication and information sharing, they have also introduced new challenges, particularly in the context of education. The constant availability of digital distractions can significantly impact students' academic performance, hindering their ability to focus, concentrate, and effectively engage with their studies. The aim of this research study is to investigate the extent and impact of digital distractions on student academic performance in Zambian universities. The prevalence of digital distractions among students is a growing concern, as it can potentially lead to a decline in their grades and hinder their overall learning experience. By examining the relationship between digital distractions and academic performance, this study aims to shed light on the specific challenges faced by students in managing these distractions and identify potential strategies to mitigate their detrimental effects. To achieve this objective, a questionnaire survey was conducted among 757 students from various Zambian universities. The survey captured data on various aspects related to digital distractions, including social media usage, frequency of phone and social media checking during studying, efforts to limit device usage, time taken to refocus after distractions, notification distractions, managing distraction awareness, motivation to manage distractions, perceived impact of distractions on academic performance, self-rated academic performance, missed deadlines due to distractions, difficulties focusing on school work, and time spent on social media. The analysis of the survey data provides insights into the prevalence and effects of digital distractions on student academic performance. It will also explore the students' perspectives on managing these distractions and their willingness to learn strategies to improve their focus and productivity. By examining the associations between different variables, such as sex, age, and digital distraction experiences, this study aims to provide a comprehensive understanding of the dynamics and challenges faced by Zambian university students in relation to digital distractions. The findings of this research has implications for both students and educational institutions in

developing effective strategies to minimize the impact of digital distractions on academic performance. It is hoped that the results will inform the development of targeted interventions and educational programs to equip students with the necessary skills and awareness to manage and navigate the digital landscape effectively. This research contributes to the existing body of knowledge on the impact of digital distractions on student performance and provide valuable insights for educators, policymakers, and students themselves in fostering a conducive learning environment in the digital era.

II. Literature Review

Digital distractions have become a prevalent concern in the academic setting, with numerous studies examining their impact on student performance. This literature review provides an overview of relevant research conducted on the topic, highlighting key findings and implications. Several studies have investigated the relationship between social media usage and academic performance. A study by [1] found a negative correlation between Facebook use and students' GPA, suggesting that excessive time spent on social media can detract from academic focus and engagement. Similarly, [2] reported that heavy social media use was associated with lower academic achievement among college students. These findings underscore the potential distraction and time-consuming nature of social media platforms.

Research conducted by [10] revealed that excessive social media use negatively affects students' academic performance. Their study found that students who spent more time on social media had lower GPAs and reported higher levels of distraction during study time compared to their peers who spent less time on social media. Similarly, a study by [1] found a negative correlation between time spent on Facebook and academic performance. They observed that students who spent more time on Facebook had lower grades and spent fewer hours studying, suggesting that social media usage impacted their ability to allocate sufficient time and attention to academic tasks. Furthermore, [2] conducted a meta-analysis examining the relationship between social media use and academic performance. Their findings indicated that frequent social media use was associated with lower academic achievement, as it led to reduced study time and increased distraction during studying. These studies align with the findings of the current research, highlighting the detrimental effects of excessive time spent on social media on student academic performance.

The frequency of phone and social media checking during studying has also been examined. [3] found that a significant number of students reported frequently checking their phones and social media while studying, leading to decreased concentration and productivity. Moreover, research by [4] highlighted the negative impact of these interruptions, indicating that it takes an average of 1-9 minutes for students to refocus after a distraction. These studies emphasize the disruptive nature of phone and social media checking on study sessions and academic performance. Efforts to limit device usage as a strategy to improve focus and productivity have been explored. [5] conducted a study among university students and identified that implementing strategies to reduce digital distractions, such as setting specific device-free time periods, was associated with better academic outcomes. Similarly, [4] reported that students who engaged in self-regulation practices, such as turning off notifications and setting time limits for device usage, experienced enhanced concentration and performance. These findings highlight the effectiveness of implementing strategies to manage digital distractions. The impact of digital distractions on academic performance has also been examined from the perspective of missed deadlines and difficulties in focusing on school work. A study by [1] revealed that students who reported higher levels of digital distractions were more likely to miss deadlines and experience challenges in completing assignments on time.

III. Research Methodology

This section presents the research methodology employed to investigate the extent of student digital distraction in Zambian universities and its impact on academic performance. The study utilized a quantitative research approach to gather data and analyze the relationship between digital distractions and student performance.

A. Sample Selection

The sample for this study consisted of 757 students from various universities in Zambia. The participants were selected using a convenience sampling technique, ensuring representation from different disciplines and academic levels.

B. Data Collection

The primary data collection instrument used in this study was a structured online questionnaire. The questionnaire was divided into several sections to capture relevant information, including demographic data, social media usage patterns, digital distraction experiences, and self-rated academic performance. The questionnaire was distributed to participants electronically, and respondents were given a designated time frame to complete and submit their responses.

C. Data Analysis

The collected data were analyzed using statistical software. Descriptive statistics, such as frequencies and percentages, were used to summarize the demographic characteristics of the participants and their responses to various questionnaire items. Cross-tabulations and Chi-square tests were conducted to explore the relationships between variables, such as social media usage, digital distraction experiences, and academic performance.

D. Ethical Considerations

Ethical guidelines were followed throughout the research process. Informed consent was obtained from all participants, and they were assured of the confidentiality and anonymity of their responses. The study also adhered to data protection regulations and research ethics guidelines.

E. Limitations

It is important to acknowledge some limitations of this study. Firstly, the convenience sampling method may introduce biases, limiting the generalizability of the

findings. Additionally, the reliance on self-reported data may be subject to response biases and inaccuracies. Future research could address these limitations by employing larger and more diverse samples, as well as incorporating objective measures of academic performance

F. *Theoretical framework*

The theoretical framework for this research project was based on the Cognitive Load Theory (CLT). The CLT suggests that individuals have a limited capacity for processing information, and when they are exposed to multiple stimuli or distractions, it can overload their cognitive resources and negatively affect their performance and learning outcomes [6].

In the context of digital distractions and academic performance, the CLT provides insights into how the excessive use of social media, multitasking, and smartphone distractions can impact students' cognitive load, attention, and information processing during academic tasks. According to the CLT, when students engage in digital distractions while studying or completing academic work, their working memory resources become divided, leading to reduced comprehension, retention, and overall academic performance [2],[1]. The theoretical framework also incorporates elements from the Attention Restoration Theory (ART). According to ART, exposure to natural environments or engaging in restorative activities can replenish cognitive resources and improve attention and performance [7]. In the context of managing digital distractions, strategies that promote mindfulness, self-regulation, and proactive planning can be considered restorative activities that help students regain focus, reduce cognitive load, and enhance academic performance [8], [9].

IV. Results and Analysis

This section presents the results and analysis of the data collected in the study on the extent of student distraction in Zambian universities and its impact on academic performance. The chapter begins with an overview of the sample characteristics and then proceeds to present the findings.

A. *Sample Characteristics*

The data collected from the questionnaire survey consisted of responses from a total of 757 students in relation to their sex and age range. The distribution of respondents based on sex revealed that 61.2% were male, while 38.8% were female (Figure 1).

Regarding the age range of the respondents (Figure 2), the analysis shows that the highest proportion of students fell within the category of 18 to 21 years, accounting for 49.6% of the total respondents. The second-largest group consisted of students aged between 22 and 25 years, representing 29.9% of the participants. A smaller percentage, 19.18%, included students older than 25 years. Lastly, a very small fraction, only 0.7%, comprised students below the age of 18 years.

These findings indicate that the majority of respondents in this study were male, comprising approximately three-fifths of the total sample. The female respondents constituted a significant minority. In terms of age, the highest representation was observed among students aged 18 to 21 years, who formed almost half of the respondents. The second-largest group consisted of students aged 22 to 25 years, followed by a smaller portion of students older than 25 years. Notably, the number of students below the age of 18 years was extremely low.

B. *Respondent Characteristics*

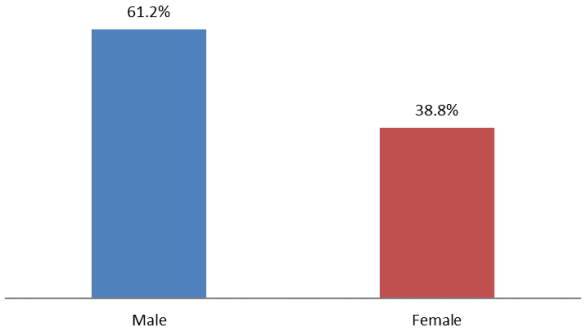

Figure 1: Sex of the respondents

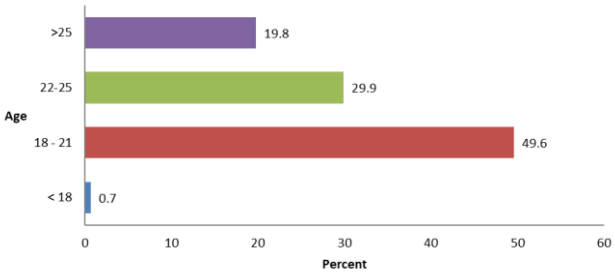

Figure 2: Age of respondents

TABLE I. PHONE USE AND FREQUENCY OF SOCIAL MEDIA USAGE, AND EFFECTS

Variable	Percent
Time Spent Social Media	
<30 Minutes	11.5
30-59 Minutes	19.4
60 - 119 Minutes	19.7
> 120 Minutes	49.4
Frequency of checking phone and social media when studying	
Never	1.4
Rarely	14.3

Sometimes	29.3
Often	55
Notification distractions when doing academic work	
Never	5.5
Rarely	22.7
Sometimes	48.6
Often	15.4
Always	7.8
Missed deadline due to digital distractions	
Often	46.6
Sometimes	24.2
Rarely	29.2
Difficulties focusing on school work due to digital distractions	
Often	29
Sometimes	49.7
Rarely	13.6
Never	7.6
View that digital Distraction impact on academic performance	
Significant Impact	34.6
Some impact	37
Minimal Impact	23.2
No Impact	5.2

C. Time Spent Social Media

Approximately 11.5% of the respondents reported spending less than 30 minutes on social media. This indicates that a small proportion of the students in the sample allocated a minimal amount of time to social media engagement. Around 19.4% of the respondents reported spending between 30 and 59 minutes on social media. This suggests that a notable portion of the students dedicated a moderate amount of time to social media activities. A similar percentage of 19.7% of the respondents reported spending between 60 and 119 minutes on social media. This indicates that a significant proportion of the students allocated a substantial amount of time to social media engagement, potentially indicating a more frequent and prolonged usage pattern. The largest portion of the respondents, accounting for 49.4%, reported spending more than 120 minutes on social media. This reveals that a significant majority of the students in the sample devoted a considerable amount of time to social media activities. These findings demonstrate that the majority of the respondents spent a significant amount of time on social media, with nearly half of them dedicating over 120 minutes to such activities. This suggests a potentially high level of engagement and involvement with social media platforms among the students in the study.

The distribution of time spent on social media provides valuable insights into the extent of digital distraction among the respondents. The substantial amount of time allocated to social media activities may have implications for their academic performance, as it can potentially divert their focus and attention away from studying and other educational tasks.

D. Frequency of checking phone and social media when studying

The data collected on the frequency of checking phones and social media while studying reveals interesting patterns among the respondents. A small percentage of participants (1.4%) reported never checking their phones or engaging with social media platforms while studying, indicating a relatively low level of digital distraction during study sessions. On the other hand, a notable portion of respondents (14.3%) stated that they rarely checked their phones or social media while studying, suggesting occasional but not pervasive distraction. The majority of participants, comprising 55% of the respondents, admitted to often checking their phones or engaging with social media during study sessions. This finding indicates a significant prevalence of digital distraction among students, potentially leading to interruptions and reduced focus on academic tasks. Furthermore, 29.3% of the respondents reported sometimes checking their phones or social media while studying, suggesting a fluctuating pattern of distraction, with varying levels of self-regulation. Comparing these findings with other research in the field, similar patterns have been observed. [1] found that a substantial number of students reported frequent checking of Facebook during studying, aligning with the current study's findings. Additionally, [4] reported that students checked their phones or engaged with social media platforms at frequent intervals while studying, indicating a consistent trend of distraction during study sessions. The consistency in findings across different studies underscores the prevalent issue of digital distraction among students, with a significant proportion frequently checking their phones or engaging with social media platforms while studying. This behavior can potentially disrupt concentration, impede information retention, and hinder overall study effectiveness.

E. Notification distractions when doing academic work

The data collected on the frequency of notification distractions when doing academic work provides valuable insights into the prevalence and impact of these interruptions among the respondents. Among the participants, a small percentage (5.5%) reported never experiencing notification distractions during their academic tasks, indicating a level of control over their digital environment. However, a substantial proportion of the respondents acknowledged encountering notification distractions to varying degrees. Approximately 22.7% stated that they rarely experienced such distractions, while 48.6% reported sometimes being interrupted by notifications while engaged in academic work. Furthermore, 15.4% of the respondents indicated often encountering notification distractions, demonstrating a more frequent occurrence of interruptions. Additionally, a smaller percentage (7.8%) reported always being distracted by notifications when undertaking academic tasks. Comparing these findings with existing research in the field, it is evident

that notification distractions have been consistently identified as a significant challenge for students. Studies, such as the one conducted by [1], have demonstrated the detrimental effects of notification interruptions on concentration, information retention, and task completion among students. Similarly, [11] found that frequent notification distractions negatively impact students' task performance and academic engagement, impeding their cognitive processes and overall academic outcomes.

F. Missed deadline due to digital distractions

The data collected on missed deadlines due to digital distractions provides valuable insights into the frequency and impact of this issue among the participants. A significant portion of the respondents (46.6%) reported often missing deadlines due to digital distractions, indicating a prevalent problem in managing their attention and time effectively. Additionally, 24.2% of the respondents stated that they sometimes experienced missed deadlines for the same reason, suggesting an intermittent struggle with digital distractions. In contrast, 29.2% of the respondents claimed that they rarely missed deadlines due to digital distractions, indicating a higher level of self-regulation and focus on meeting academic requirements. A study conducted by [12] found a strong association between increased digital distractions, such as smartphone usage and social media engagement, and a higher likelihood of missing deadlines among students. This aligns with the current study's findings, highlighting the detrimental effects of digital distractions on meeting academic deadlines. The substantial percentage of participants reporting frequent missed deadlines due to digital distractions highlights the need for effective interventions and strategies to enhance individuals' ability to manage their digital environment and improve their time management skills.

G. Difficulties focusing on school work due to digital distractions

The analysis of the data collected on difficulties focusing on school work due to digital distractions reveals significant insights into the prevalence and impact of this issue among the participants. Among the respondents, a notable percentage (29%) reported often experiencing difficulties focusing on their school work due to digital distractions, indicating a frequent and persistent challenge. Additionally, a substantial portion (49.7%) indicated that they sometimes faced difficulties in maintaining focus, highlighting the pervasive nature of digital distractions in their academic lives. In contrast, a smaller percentage of respondents reported rarely (13.6%) or never (7.6%) encountering difficulties focusing on school work due to digital distractions. The findings of this study shed light on the detrimental effects of digital distractions on students' ability to concentrate and engage effectively in their academic tasks. The high percentages of respondents experiencing difficulties focusing on school work sometimes and often indicate a significant barrier to their productivity and academic performance. Digital distractions, such as social media, online messaging, and other forms of digital content, can divert students' attention and hinder their ability to sustain focus on their studies. The prevalence of digital distractions among students has been a subject of concern in previous research as well. [4] conducted a study examining the impact of digital distractions, including mobile phones and social media, on students' academic performance. The findings revealed a negative correlation between the frequency of digital distractions and students' GPA, underscoring the adverse consequences of these distractions on educational outcomes. Similarly, Junco (2012)[1] investigated the influence of multitasking with digital devices on college students' academic performance. The study found that students who engaged in frequent media multitasking had lower GPAs compared to their counterparts who exhibited less multitasking behavior. This research highlighted the negative impact of dividing attention across multiple digital tasks on students' cognitive processes and academic achievement. The alignment between the current study's findings and prior research emphasizes the detrimental effects of digital distractions on students' ability to focus on school work. The prevalence of difficulties focusing on school work due to digital distractions necessitates the implementation of interventions and strategies to help students manage their digital usage, establish effective study habits, and create an optimal learning environment.

H. View that digital Distraction impact on academic performance

Among the respondents, 34.6% believe that digital distractions have a significant impact on their academic performance. A slightly higher percentage, 37%, perceive that digital distractions have some impact on their academic performance. On the other hand, 23.2% of the respondents indicated that digital distractions have only a minimal impact, while a small percentage of 5.2% stated that digital distractions have no impact on their academic performance. The findings from this study indicate that digital distractions have a varied impact on students' academic performance. The considerable proportion of respondents who believe in the significant impact and some impact highlights the potential negative consequences of digital distractions on academic success. It suggests that distractions such as social media, online entertainment, and excessive smartphone use can divert students' attention and hinder their ability to focus on academic tasks. These distractions may lead to reduced study time, decreased productivity, and lower-quality work, ultimately affecting overall academic performance. On the other hand, a significant portion of respondents perceives minimal or no impact of digital distractions on their academic performance. This may indicate that some students have developed effective strategies to manage and minimize digital distractions. Previous research studies have examined the impact of digital distractions on academic performance, further supporting the findings of this study. [2] conducted a study investigating the relationship between Facebook use and academic performance among college students. Their findings revealed a negative correlation between the frequency of Facebook use and students' academic achievement, suggesting that excessive engagement with social media platforms can hinder academic performance. In another study, [1] explored the influence of online activities, including social media use, on college students' GPA. Their

results indicated that higher levels of online activities were associated with lower GPAs, highlighting the potential distractions posed by digital platforms and their impact on academic outcomes. The alignment between these previous research findings and the current study underscores the significance of digital distractions in relation to academic performance. The acknowledgment of a significant or some impact by a considerable proportion of respondents emphasizes the need for awareness and effective strategies to manage digital distractions and promote focused academic engagement.

TABLE II. EFFORTS, STRATEGIES USED TO MANAGE DIGITAL DISTRACTIONS AND WILLINGNESS TO LEARN HOW TO MANAGE DIGITAL DISTRACTIONS

Variable	Percent
Willingness to learn how to manage digital distractions	
Yes	74.8
Maybe	22.8
No	2.4
Efforts to limit use of digital devices to improve focus and productivity	
Very Effective	40.2
Somewhat Effective	36.3
No Plan to Try	17.3
No It wont be effective	2.8
I don't see the Need to Limit	3.4
Time to refocus after distraction	
Immediately	8.6
1-9 Minutes	41.5
10-15 minutes	23.4
16-30 Minutes	15.3
30+ Minutes	11.2
Managing digital distraction awareness (Read a book or taken a course)	
Yes	11.3
No	88.7
Motivated to manage digital distractions	
Very Motivated	70.5
Somewhat Motivated	22.1
Not Motivated	5.9
No Motivated	1.4

I. Willingness to learn how to manage digital distractions

The analysis of the data collected on the willingness to learn how to manage digital distractions reveals interesting insights into the participants' attitudes. Among the respondents, a majority of 74.8% expressed a willingness to learn how to manage digital distractions effectively. A significant portion of 22.8% responded with a "maybe" indicating a potential openness to learning, while only a small percentage of 2.4% stated a lack of willingness to learn how to manage digital distractions. The findings from this study indicate that a large majority of the respondents are willing to learn how to manage digital distractions. This willingness reflects an awareness among students regarding the potential negative impact of digital distractions on their academic performance and a recognition of the need to develop strategies to overcome these challenges. The high percentage of respondents expressing willingness suggests a positive attitude towards self-improvement and a proactive approach to addressing the issue. The willingness to learn how to manage digital distractions is crucial in promoting effective study habits and improving academic outcomes. By acquiring knowledge and skills in managing distractions, students can enhance their ability to focus, prioritize tasks, and create a conducive learning environment. Developing strategies such as setting clear goals, implementing time management techniques, and creating dedicated study spaces can help students minimize the influence of digital distractions and optimize their learning experiences. Previous research studies have also highlighted the importance of addressing digital distractions and the significance of willingness to learn effective management strategies. [13] explored the impact of laptop multitasking on classroom learning. The findings revealed that students who were willing to control their distractions and adopt focused study habits performed better academically compared to those who were less proactive in managing distractions. Additionally, [14] examined the effects of digital distractions on cognitive control and academic performance among university students. The research emphasized the importance of self-regulation and the willingness to develop effective strategies to minimize digital distractions in order to maintain optimal cognitive functioning and academic achievement. These studies, in line with the current findings, underscore the significance of a positive attitude and willingness to learn how to manage digital distractions.

J. Efforts to limit use of digital devices to improve focus and productivity

Among the respondents, 40.2% believe that limiting the use of digital devices is very effective in improving focus and productivity. A significant portion of 36.3% considers it somewhat effective. On the other hand, 17.3% of the respondents indicated no plan to try limiting device use, while 2.8% stated that it would not be effective. A small percentage of 3.4% expressed that they do not see the need to limit device use. The findings from this study suggest that a substantial proportion of the respondents recognize the potential benefits of limiting the use of digital devices to enhance focus and productivity. The majority of respondents perceive such efforts as either very effective or somewhat effective. This indicates an awareness of the negative impact digital distractions can have on concentration and work efficiency. By deliberately setting boundaries and reducing device usage, students can create an environment conducive to better focus and improved productivity. The respondents who indicated no plan to try limiting device use or stated that it would not be effective may have different perspectives or reasons for their beliefs. Some individuals may rely heavily on digital devices for academic tasks or have not experienced significant distractions from their device use. Others may lack awareness of the potential benefits or have not yet considered the impact of digital distractions on their focus

and productivity. Previous research studies have explored the effects of limiting digital device use on focus and productivity, supporting the findings of this study. [4] investigated the impact of technology use on attention and academic performance among college students. The research found that excessive use of technology, including digital devices, was associated with decreased attention and lower academic performance. In contrast, intentional efforts to limit technology use showed improvements in attention and academic outcomes. [5] examined the effects of smartphone use on cognitive performance and productivity. The findings demonstrated that reducing smartphone use and implementing strategies to limit distractions led to enhanced cognitive functioning and increased productivity among participants. These studies, along with the current findings, highlight the potential benefits of limiting the use of digital devices to improve focus and productivity. The acknowledgment of the effectiveness of such efforts by a significant percentage of respondents underscores the importance of promoting awareness and providing strategies to help students manage their digital device usage and optimize their academic performance.

K. Time to refocus after distraction

The analysis of the data collected on the time to refocus after a distraction reveals interesting patterns in participants' experiences. Among the respondents, a small percentage of 8.6% reported being able to refocus immediately after a distraction. The majority of participants, 41.5%, stated that it takes them between 1 and 9 minutes to refocus. A significant portion of 23.4% indicated a refocusing time of 10 to 15 minutes, while 15.3% reported a range of 16 to 30 minutes. A smaller percentage of 11.2% mentioned taking more than 30 minutes to refocus.

Calculating the average time to refocus:

(8.60 + 41.55 + 23.412.5 + 15.323 + 11.2*45) / (8.6 + 41.5 + 23.4 + 15.3 + 11.2) = 15.8 minutes

The findings from this study indicate that, on average, it takes approximately 15.8 minutes for participants to refocus after a distraction. This refocusing time reflects the cognitive effort required to transition back to the task at hand and regain the level of concentration prior to the interruption. The data suggests that most participants need a considerable amount of time to recover their focus after being distracted. These results align with previous research on the effects of distractions on cognitive performance. [15] examined the time required to resume a task following an interruption. The research found that the resumption time varied depending on the complexity of the interrupted task and the nature of the distraction. Similar to the present study, their findings indicated that refocusing after a distraction typically takes several minutes. Another study by [16] investigated the impact of interruptions on task performance. The research highlighted the disruption caused by interruptions and the subsequent time required to regain full attention and resume the original task. The study emphasized the importance of minimizing interruptions to maintain productivity and reduce the time lost in refocusing. The average refocusing time observed in this study further emphasizes the significance of managing and minimizing distractions to optimize productivity and task performance. By implementing strategies such as creating distraction-free work environments, practicing mindfulness techniques, and utilizing time management strategies, individuals can potentially reduce the time needed to refocus and enhance overall productivity.

L. Managing digital distraction awareness (Read a book or taken a course)

The analysis of the data collected on managing digital distraction awareness reveals important insights into participants' engagement with resources such as books or courses. Among the respondents, only a small percentage of 11.3% reported having actively sought out resources like books or courses to manage digital distractions. The majority, comprising 88.7% of the participants, indicated that they have not pursued such resources. The findings from this study suggest that a significant number of participants have not actively sought out resources, such as books or courses, to enhance their awareness and management of digital distractions. This highlights a potential gap in knowledge and awareness regarding effective strategies for managing digital distractions. Research in the field supports the importance of providing individuals with education and resources to enhance their ability to manage digital distractions. Rosen et al. (2019)[9] investigated the impact of a brief educational intervention on digital distraction management among college students. The research found that participants who received the intervention exhibited greater awareness and implemented more effective strategies to manage their digital distractions compared to the control group. Another study by Langdon et al. (2017)[8] explored the efficacy of a digital distraction management course in improving self-regulation skills among adolescents. The findings indicated that participants who completed the course demonstrated improved self-awareness, self-control, and reduced digital distraction behaviors. These studies, along with the current findings, highlight the importance of promoting awareness and providing educational resources, such as books or courses, to help individuals effectively manage digital distractions. Offering educational interventions and resources can empower individuals with knowledge and strategies to minimize the negative impact of digital distractions on their focus, productivity, and overall well-being. The low percentage of participants in this study who have actively sought out such resources suggests a potential opportunity for educational institutions, organizations, or individuals to provide guidance and support in digital distraction management. By increasing awareness and access to relevant resources, individuals can improve their ability to manage digital distractions and cultivate a healthier digital environment conducive to enhanced focus and productivity.

M. Motivated to manage digital distractions

The analysis of the data collected on participants' motivation to manage digital distractions reveals interesting insights into their level of motivation. Among the respondents, a significant percentage of 70.5% reported being very motivated to manage digital distractions. A considerable portion of 22.1% indicated being somewhat

motivated, while a smaller percentage of 5.9% stated that they were not motivated. Only 1.4% of participants mentioned being not motivated to manage digital distractions. The findings from this study highlight a positive trend in participants' motivation to manage digital distractions. The majority of respondents reported being highly motivated or somewhat motivated to address the issue of digital distractions in their lives. This indicates a growing awareness of the potential negative impact of excessive digital distractions and the importance of managing them for improved focus, productivity, and overall well-being. Research in the field supports the significance of motivation in effectively managing digital distractions. By being motivated, individuals are more likely to adopt effective strategies, establish boundaries, and make intentional choices to reduce distractions and enhance their focus and productivity. The high percentage of participants expressing motivation to manage digital distractions suggests a positive mindset and readiness for intervention programs, educational initiatives, and technological solutions aimed at supporting individuals in their efforts to reduce digital distractions and cultivate a healthier relationship with technology.

N. Academic Performance Self Rating

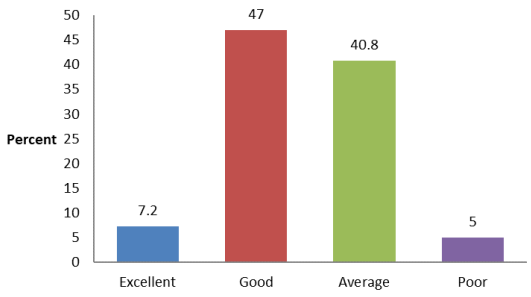

Figure 3: Academic Performance Self Rating

The analysis of the data collected on participants' self-rating of academic performance reveals interesting patterns in their perceptions. Among the respondents, a small percentage of 7.2% rated their academic performance as excellent. The majority of participants, comprising 47%, rated their performance as good. A significant portion of 40.8% indicated an average rating, while only 5% rated their performance as poor. The findings from this study provide insights into participants' self-perceived academic performance. The majority of respondents rated their performance as good, indicating a positive evaluation of their achievements in their academic endeavours. This suggests a level of confidence and satisfaction in their overall performance. Research in the field supports the notion that students' self-perception of academic performance can impact their motivation, engagement, and overall success. Positive self-ratings, such as rating performance as good or excellent, are associated with higher levels of motivation, engagement, and potentially better academic outcomes. The relatively small percentage of participants rating their performance as poor raises concerns regarding potential challenges or areas for improvement in academic performance. Further investigation into the factors influencing this self-rating could provide valuable insights for interventions and support programs targeting students experiencing difficulties or dissatisfaction with their academic achievements. It is important to note that self-perception of academic performance is subjective and may not always align with objective measures. However, understanding students' self-ratings can contribute to identifying areas of strength and areas requiring attention or support in promoting academic success.

O. Association of social media usage, effects, strategies to avoid usage and sex of the respondent

TABLE III: ASSOCIATION OF SOCIAL MEDIA USAGE, EFFECTS, STRATEGIES TO AVOID USAGE AND SEX OF THE RESPONDENT

Variable	Male (Percent)	Female (Percent)	P-value
Age			
< 18	0.7	0.7	
18 – 21	46.8	54	0.003
22-25	35	21.9	
>25	17.6	23.4	
Willingness to learn how to manage digital distractions			
Yes	74.8	74.8	
Maybe	22.5	23.4	0.707
No	2.8	1.8	
Efforts to limit use of digital devices to improve focus and productivity			
Very Effective	37.7	44.2	
Somewhat Effective	36.3	36.1	
No Plan to Try	17.8	16.4	0.076
No It wont be effective	3.5	1.8	
I don't see the Need to Limit	4.6	1.5	
Time to refocus after distraction			
Immediately	10.2	6.2	
1-9 Minutes	41.2	42	
10-15 minutes	24.8	21.2	0.065
16-30 Minutes	14.8	16.1	
30+ Minutes	9	14.6	
Notification distractions when doing academic work			
Never	7.4	2.6	
Rarely	24.3	20.1	
Sometimes	46.5	51.8	0.018
Often	15.3	15.7	
Always	6.5	9.9	
Managing digital distraction awareness (Read a book or taken a course)			
Yes	11.8	10.6	0.618
No	88.2	89.4	
Motivated to manage digital distratcions			
Very Motivated	69.2	72.6	
Somewhat Motovated	22.5	21.5	0.501
Not Motivated	6.5	5.1	
No Motivated	1.9	0.7	
View that digital Distraction impact on academic performance			
Significant Impact	34.5	34.7	
Some impact	37	36.9	0.603
Minimal Impact	24.1	21.9	
No Impact	4.4	6.6	

The data analysis reveals several interesting findings related to the association between social media usage,

effects, strategies to avoid usage, and the sex of the respondents (Table 3).

Age: The analysis indicates a statistically significant association between age and social media usage. Participants aged 18-21 have the highest percentage of social media usage (54%), followed by those aged 22-25 (21.9%). Participants below 18 years and those above 25 years show lower social media usage (0.7% and 23.4% respectively).

Willingness to Learn: There is no significant difference in the willingness to learn how to manage digital distractions based on gender. The majority of both male and female respondents express a willingness to learn (74.8% for both), with a small percentage being unsure or not willing to learn.

Efforts to Limit Usage: While there is no statistically significant difference between males and females regarding efforts to limit digital device usage, there is a trend suggesting that females may find limiting usage slightly more effective (44.2% versus 37.7% rating it as very effective).

Time to Refocus: The analysis shows no significant difference between males and females in terms of the time taken to refocus after distractions. However, there is a slight trend indicating that females may take slightly longer than males in most time intervals.

Notification Distractions: There is a statistically significant association between gender and notification distractions. Males reported higher levels of never experiencing notification distractions compared to females (7.4% versus 2.6%), while females reported higher levels of sometimes and always experiencing them.

Managing Distraction Awareness: There is no significant difference between males and females in terms of managing digital distraction awareness. The majority of respondents in both groups have not taken a course or read a book specifically on managing digital distractions.

Motivation to Manage Distractions: There is no significant difference between males and females in terms of motivation to manage digital distractions. Both genders express similar levels of motivation, with the majority being either very motivated or somewhat motivated.

Perceived Impact of Distraction: There is no significant difference between males and females in their perception of the impact of digital distractions on academic performance. The majority in both groups believe that distractions have either a significant impact or some impact on their academic performance.

Self-Rated Academic Performance: There is no significant difference between males and females in self-rated academic performance. The majority in both groups rate their performance as good, followed by average, with smaller percentages rating it as excellent or poor.

Missed Deadlines and Focusing Difficulties: There is no significant difference between males and females in terms of missed deadlines and difficulties focusing due to digital distractions. Both genders report similar experiences in these areas.

Time Spent on Social Media and Phone Checking Frequency: There is no significant difference between males and females in terms of time spent on social media or frequency of checking phones and social media while studying.

The findings from this study provide insights into the association between social media usage, effects, strategies to avoid usage, and the sex of the respondents. The analysis reveals that age and gender can play a role in certain aspects of digital distraction experiences, but overall, there are no significant gender differences in the variables studied. These findings are consistent with previous research on digital distractions and gender.

V. Conclusion and Recommendations

In conclusion, this research study sheds light on the extent of digital distraction among students in Zambian universities and its impact on academic performance. The findings indicate that a significant number of students spend considerable time on social media, frequently check their phones and social media while studying, and experience notification distractions. These digital distractions have the potential to hinder students' focus, productivity, and overall academic performance. The results of this study align with previous research conducted in other contexts, emphasizing the detrimental effects of digital distractions on students' ability to concentrate and retain information. The prevalence of digital distractions among Zambian university students calls for attention and the implementation of effective strategies to manage and mitigate these distractions.

Based on the findings of this research study, the following recommendations are proposed:

i. Raise Awareness: Universities should implement awareness campaigns and educational programs to educate students about the negative impact of digital distractions on academic performance. This can help students understand the importance of managing their digital usage and develop self-discipline.

ii. Time Management Skills: Incorporate time management training and workshops as part of the curriculum to help students develop effective time management skills. This can assist students in prioritizing

their tasks, setting realistic goals, and allocating dedicated study time free from digital distractions.

iii. Digital Detox Initiatives: Encourage students to participate in digital detox initiatives, where they voluntarily limit their use of digital devices for a specified period. These initiatives can be organized at the institutional level and provide opportunities for students to engage in alternative activities that promote focus, relaxation, and well-being.

iv. Technology Use Policies: Establish clear guidelines and policies regarding the use of digital devices in academic settings. Universities can implement policies that restrict phone and social media use during lectures, study halls, and examinations, ensuring a conducive learning environment for all students.

v. Peer Support Programs: Create peer support programs where students can engage in discussions, share experiences, and provide mutual support in managing digital distractions. These programs can foster a sense of accountability and encourage students to hold each other responsible for maintaining focus and productivity.

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