



Ethical dilemmas in the use of social media by students in public senior secondary schools in Gaborone, Botswana

By

Tsvakai Elizabeth Mashingaidze

217080906

PhD (Information Studies)

Supervisor: Professor Stephen Mutula

Submitted in fulfilment of the requirements for the Degree of Doctor of Philosophy (Information Studies)

in the School of Social Sciences, College of Humanities, University of KwaZulu-Natal,

Pietermaritzburg, Republic of South Africa

November 2025

DECLARATION

I, Tsvakai Elizabeth Mashingaidze, with student registration number 217080906 declare that

1. The research reported in this thesis, except where otherwise indicated, is my original research.
2. This thesis has not been submitted for any degree or examination at any other university.
3. This thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
4. This thesis does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
 - a. Their words have been re-written but the general information attributed to them has been referenced
 - b. Where their exact words have been used, then their writing has been placed in italics and inside quotation marks, and referenced.
5. This thesis does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged, and the source being detailed in the thesis and in the References sections.

Tsvakai Elizabeth Mashingaidze
Student Name



Signature

Professor Stephen Mutula
Name of Supervisor



Signature

November, 2025
Date

DEDICATION

This thesis is dedicated to the memory of my parents, Phineas Dzeka and Agnes Chimbadzwa Dzeka, who taught me to value education. Forever, loved and missed.

ACKNOWLEDGMENTS

My deepest gratitude goes to my supervisor, Professor Stephen Mutula, for the unwavering guidance, patience, and support throughout this journey. It was a long and challenging journey, and I would like to thank him for believing in me and not giving up on me. I am really thankful to the University of KwaZulu-Natal for allowing me to contribute to the body of knowledge in the field of information ethics. I also appreciate the financial support I received from the University during my studies.

I would also like to thank the government of Botswana and the Ministry of Education in Botswana for permitting me to conduct this research in the four schools in Gaborone. I am thankful to all the school heads who facilitated the smooth collection of data, and to the teachers, parents, and students who participated in this study. It would not have been possible without their support and collaboration.

To Dr Aretha Maposa, my mentor, thank you for all the insights and assistance with this work. May the Lord richly bless you. Last but not least, I would like to convey my love and appreciation to my husband Raphael and our sons Kuziwakwashe and Kudakwashe for their love, patience, encouragement, for financing my studies when it went beyond the fee remission period and for being by my side throughout this research.

ABSTRACT

This study investigates the ethical dilemmas experienced by students in their use of social media in public senior secondary schools in Gaborone, Botswana. Anchored in the Potter Box Model of Ethical Reasoning, classical ethical theories (Deontology, Consequentialism, and Virtue Ethics), and the World Summit on the Information Society (WSIS) Framework, the study aimed to explore the nature of these dilemmas, examine how students resolve them, and analyse the role of teachers and parents in supporting adolescents' ethical decision-making. A mixed-methods research design was adopted. Four senior secondary schools in Gaborone, the capital city of Botswana, were purposively selected from a total of 33, and 346 students were systematically sampled from a population of 3,296, and qualitative data were collected through interviews with teachers and parents. Quantitative data were analysed using descriptive and inferential statistics (chi-square, correlation, regression, and t-tests) alongside thematic analysis. Findings revealed that frequent dilemmas related to privacy, freedom of expression, access to information, digital safety, and cyberbullying were experienced. These dilemmas are often navigated without structured ethical guidance from schools or families, exposing significant gaps in digital ethics education. The study culminated in the development of the BOTHO Digital Ethics Model (BDEM), a contextually grounded framework designed to guide responsible social media engagement among adolescents. The study contributes to theory by extending the applicability of the Potter Box Model to adolescent digital contexts in Africa, to practice by informing capacity-building initiatives for teachers and parents, and to policy by advocating the integration of structured digital ethics education into the senior secondary curriculum. The findings underscore the urgent need for collaborative school-home partnerships and strengthened ethical governance in adolescent digital engagement.

Keywords: digital literacy; ethical decision-making; ethical dilemmas; Potter Box Model; social media ethics;

TABLE OF CONTENTS

DECLARATION	i
DEDICATION	ii
ACKNOWLEDGMENTS.....	iii
ABSTRACT.....	iv
TABLE OF CONTENTS	v
LIST OF FIGURES.....	xii
LIST OF TABLES.....	xiii
ABBREVIATIONS AND ACRONYMS.....	xv
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the study	1
1.1.1. ICT Environment and social media activities in schools	2
1.1.2 Types of social media.....	4
1.1.3 Social media use in Botswana and worldwide	9
1.1.4 Complexities and challenges brought by social media use	11
1.1.5 Responses to social media complexities and challenges.....	18
1.2 Rationale of the study	19
1.2.1 Position of study in the field of ethics and information studies	20
1.2.2 Overview of research sites	21
1.3 Statement of the problem	22
1.4 Research objectives.....	24
1.5 Research questions.....	24
1.7 Significance of the study.....	26
1.8 Delimitation of the study	27
1.9 Outline of chapters	28

CHAPTER TWO	30
THEORETICAL FRAMEWORK.....	30
2.1 Introduction.....	30
2.2 Theoretical framework.....	30
2.2.1 Theories and models in ICT and Media Studies	31
2.2.2 Principal theories underpinning the study	36
2.3 Mapping of theories to variables and research questions	46
2.4 Conceptual framework.....	47
2.6 Chapter summary	49
CHAPTER THREE	50
LITERATURE REVIEW	50
3.1. Introduction.....	50
3.2 Conceptualising ethical dilemmas in social media use	51
3.3 Empirical definition: Understanding ethical dilemmas in context	52
3.4 Identifying values: Influences on adolescent online behaviour	56
3.5 Appeal to ethical principles: Moral reasoning frameworks guiding action	60
3.6 Choosing loyalties: Accountability to different stakeholders	60
3.7 Ethical issues surrounding the use of social media.....	61
3.7.1 Privacy.....	63
3.7.2 Accuracy of information on social media platforms.....	68
3.7.3 Intellectual property	70
3.7.4 Access and accessibility	71
3.7.5 Cyberbullying.....	72
3.7.6 Inappropriate content.....	75
3.7.7 Tendencies of excessive use and addiction to social media.....	76
3.7.8 Identity theft	78
3.8 Ethical dilemmas and ethical decision-making in social media use	79

3.8.1 The regulatory environment of social media use	79
3.8.2 Social media platforms' terms of service (ToS)	80
3.8.3 Human rights and legal environment	81
3.8.4 Societal, family, and institutional norms.....	83
3.9 The role of parents and teachers	85
3.10 The gender dimension	89
3.11 Ethical decision making	89
3.12 Gaps in existing literature and contribution of the study	90
3.13 Contribution of this study	92
3.14 Alignment to research questions (what literature covers vs. what this study investigates empirically)	92
3.15 Chapter summary	93
CHAPTER FOUR	96
RESEARCH METHODOLOGY AND METHODS.....	96
4.1. Introduction.....	96
4.2 Research paradigm	96
4.3 Research approach	99
4.4 Research design.....	100
4.5 Target and study population.....	101
4.6 Sampling technique	102
4.7 Data collection procedure	106
4.8 Pilot study	107
4.9 Issues of trustworthiness	108
4.10 Data analysis.....	109
4.11 Ethical considerations	110
4.12 Chapter summary	110
CHAPTER FIVE	112
DATA ANALYSIS AND PRESENTATION OF RESULTS.....	112
5.1 Introduction.....	112
5.2.1 Reliability test	113

5.2.2 Reliability statistics	113
5.2.3 Demographic information	114
5.3 Presentation of findings of the study	116
5.4 Social media use	117
5.4.1 Stages of respondents' social media use	117
5.4.2 Introduction to social media	118
5.4.3 Frequency of social media platform use	119
5.4.4. Time spent on social media per day	122
5.4.5 Devices used for accessing social media.....	124
5.4.6 Locations where social media is used	125
5.4.7 Using social media to communicate with the teachers and parents	127
5.4.8 Social media communication with parents.....	128
5.4.9. Multiple account holding on a single social media platform	129
5.4.10 Reasons respondents use social media	131
5.4.11 Chi-tests on reasons for using social media	133
5.4.12 Use of social media by gender	134
5.4.13 Use of social media for schoolwork.....	135
5.5 Ethical issues and dilemmas experienced by students on social media	140
5.5.1 Chi-tests - Social media issues	143
5.6 Ethical dilemmas faced using social media by the respondents	145
5.6.1 Chi-tests – Ethical dilemmas.....	148
5.7 Ethical reasoning when faced with a dilemma.....	150
5.7.1 Chi-tests – Age and decision making.....	154

5.8 Sources of help when faced with ethical dilemmas whilst using social media.....	156
5.8.1 Chi-tests – Support in decision-making from teachers and parents	156
5.8.2 Suggestions on how secondary school students can effectively use social media	159
5.9 Descriptive and inferential statistical analysis	159
5.9.1 Mean, median and mode	160
5.9.2 Chi-square and cross-tabulation results.....	161
5.9.3 Independent t-test results.....	161
5.9.4 Correlation and regression analysis	162
5.9.5 Summary of hypotheses and findings	163
5.9.6 Summary of quantitative findings	166
5.10 Results from the interviews with teachers.....	166
5.10.1 Age	167
5.10.2 Gender	167
5.10.3 Social media platforms used by teachers	167
5.10.4 Ethical issues of social media use from the teachers’ viewpoint	170
5.10.5 Ethical dilemmas of social media use	171
5.10.6. The role of teachers and parents on the social media landscape	172
5.10.7 Knowledge of social media policies and policy interventions required.....	173
5.11 Responses from interviews with parents	173
5.11.1 Social media platforms used by parents in this study	173
5.11.2 Parents experiences of social media platforms use by students	174
5.11.3 Knowledge of social media policies.....	174
5.11.4 Role of parents and teachers.....	174
5.11.5 Summary of findings for teachers and parents.....	175

5.12 Chapter summary	175
CHAPTER SIX	178
DISCUSSION OF FINDINGS	178
6.1. Introduction.....	178
6.2 Social media use and ethics	178
6.3 Ethical issues in social media use	179
6.4 Ethical dilemmas of social media use by students	187
6.5 Ethical decision-making by students.....	192
6.6 Role played by parents and teachers	194
6.7 Discussion of hypotheses	197
6.8 Limitations of the study.....	199
6.9 Chapter summary	199
CHAPTER SEVEN	202
SUMMARY, CONCLUSION AND RECOMMENDATIONS	202
7.1. Introduction.....	202
7.2 Summary of the study	203
7.3 Conclusions.....	206
7.4 Recommendations.....	208
7.4.1 Recommendations arising from the research findings	208
1. Curriculum Integration of Digital Ethics	208
7.4.2 Recommendations on addressing gaps in the literature	209
7.4.3 Recommendations informed by limitations of the study	210
7.5 Future research directions	211
7.5.1 Development of a BOTHO Digital Ethics Toolkit for future application.....	211
APPENDICES.....	246
Appendix 1: Questionnaire (Students).....	246
Appendix 2: Interview Guide (Parents).....	259
Appendix 3: Interview Guide (Teachers)	261
Appendix 4: Ethical Clearance Letters.....	262

Appendix 5: Gatekeeper Permission Letters	265
--	------------

LIST OF FIGURES

Figure 2.1:Potter Box Model of Reasoning	39
Figure 2.2: Deontology theory	42
Figure 2.3: Consequentialist reasoning process	43
Figure 2.4: Virtue ethics reasoning	44
Figure 2.5: Conceptual framework	47
Figure 5.1: Respondents' ages	115
Figure 5.2:Gender of respondents.....	116
Figure 5.3: Stages at which respondents started using social media	118
Figure 5.4: Communication with the teacher on social media	128
Figure 5.5: Social media communication with parents	129
Figure 5.6: Gender distribution of participants.....	167
Figure 5.7: Distribution of teachers' experience with ethical dilemmas	172

LIST OF TABLES

Table 2.2: Summary of theoretical framework.....	46
Table 4.1: Krejcie and Morgan table for determining sample size.....	102
Table 4.2: Distribution of sample size of students per school.....	103
Table 4.3: Overview of research questions, data sources, analysis, and validation	111
Table 5.1: Case processing summary	113
Table 5.2: Reliability statistics	113
Table 5.3: Student distribution by school	114
Table 5.4: Respondents' introduction to social media.....	119
Table 5.5: Social media platforms frequency of use	120
Table 5.6: Time spent on social media daily	123
Table 5.7: Devices used to access social media	124
Table 5.8: Location from which social media platforms are used.....	126
Table 5.9: Frequency of Communication with Teachers and Parents through social media	127
Table 5.10: Frequency of multiple social media accounts	130
Table 5.11: Descriptive frequencies of social media use	131
Table 5.12: Chi-square tests - reasons for using social media.....	134
Table 5.13: Use of social media for schoolwork	137
Table 5.14: Cross tabulation: Use of social media for schoolwork.....	137
Table 5.15: Cross tabulation: Use of social media for group discussions	138
Table 5.16: Challenges experienced when using social media.....	140
Table 5.17: Chi-tests- Social media issues	144
Table 5.18: Ethical dilemmas faced by the students when using social media	146
Table 5.19: Chi-square test results – Association between level of social media exposure and ethical dilemmas experienced by students.....	149
Table 5.20: Frequency of consideration of ethical values and principles when faced with dilemmas in social media use	150
Table 5.21: Chi-square test results – Association between age and ethical reasoning variables	155

Table 5.22: Students' ratings on teachers' and parents' helpfulness in resolving social-media ethical dilemmas	156
Table 5.23: Chi-square test results – Association between source of help and student demographics	156
Table 5.24: Crosstabulation of student responses on social media rules by school	158
Table 5.25: Measures of central tendency for key study variables.....	160
Table 5.26: Chi-square test results for associations between demographic variables and ethical reasoning	161
Table 5.27: Summary of regression coefficients predicting ethical decision-making.....	163
Table 5.29: Summary of hypotheses and findings.....	164
Table 5.30: Gender distribution of parent interview participants	173
Table 6.1: Linear regression- Ethical issues	186
Table 7.1: Localised Enhancement (BDEM).....	213

ABBREVIATIONS AND ACRONYMS

3D	Three-Dimensional
AI	Artificial Intelligence
BMS	Blood Management System
BNPC	Botswana National Productivity Centre
BOCRA	Botswana Communications Regulatory Authority
BOFINET	Botswana Fibre Networks
BTC	Botswana Telecommunications Corporation
ChatGPT	Chat Generative Pre-Trained Transformer
CIPA	Companies and Intellectual Property Authority
COSBOTS	The Copyright Society of Botswana
CRC	Convention on the Rights of the Child
EASSy	Eastern Africa Submarine Cable System
GSMA	Global System for Mobile Communications Association
ICT	Information and Communication Technologies
his	Institutes of Health Science
IPMS	Integrated Patient Management System
ITU	International Telecommunications Union
LAN	Local Area Network
NDP	National Development Plan
NTELE TSA	A rural telecommunications project
PAPA	Privacy, Accuracy, Property and Access
PBM	Potter Box Model
PR	Public Relations
PTA	Parent-Teacher Association
PTO	Parent-Teacher Organization
Pty	Proprietary, private, limited-liability company
RNPE	Revised National Policy on Education

RVC	Rhodes Virtual Campus
SEACOM	Southeast Asia-Middle East Africa Communications (submarine cable system that connects South and East Africa to Europe and Asia)
ToS	Terms of Service
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
UGT	Uses and Gratification Theory
UASF	Universal Access and Service Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNODC	United Nations Office on Drugs and Crime
WACS	West African Cable Systems
WAN	Wide Area Network
WMS	Warehouse Management System

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

This study examines the ethical dilemmas arising from students' social media use in senior secondary schools in Gaborone, Botswana. Students use various information and communication technologies to access social media, including smartphones, desktop computers at school, at home, in libraries, or in cybercafés. Information and Communication Technologies (ICTs), including social media, have been widely adopted by most societies, leveraging the internet to transform nearly every aspect of life for both young and older generations.

According to the International Telecommunication Union (ITU, 2023), approximately 67% of the world's population, or around 5.4 billion people, used the Internet in 2023, up from approximately 43% in 2015. As of February 2025, 5.56 billion people were using the internet, making up 67.9% of the global population. Of this total, 5.24 billion people, or 63.9% of the world's population, were using social media (Petrosyan, 2025). While a 2017 UN-ITU report estimated that most young online users are in China and India, making up 39% of the 830 million young online users, more recent figures suggest that approximately 79% of young people globally are now online (ITU, Digital Inclusion of Youth, 2025). The accelerated rise in internet adoption continues today, fueled by mobile-first platforms, younger digital-native populations, and increasing demand for real-time connectivity.

Despite the growing online population, there is a digital divide in access to ICTs, especially in developing countries (Batane, 2013; Lebele, 2016; Singh & Power, 2021). ITU (2023) estimates that approximately 2.6 billion people remain excluded from this revolution, which has been affecting the world for several years now. Lebele (2016), in a study conducted in the Lethlakeng district of Botswana, noted a discrepancy in ICT access and use, where residents in rural areas face difficulties accessing and using these technologies. This digital divide was also reported by Batane (2013) in an investigation on internet access and use among young people in Botswana. Attention has shifted from material access to the actual use and application of ICTs, known as the “digital use divide” (Lee, 2013).

Mobile phone penetration in developing countries has created a driving force that enables many people to enter the information society (Lee, 2013). In the first quarter of 2023, Botswana had a

total of 4,379,999 mobile phone subscribers (Statistics Botswana, 2023). This expanding connectivity has increased young people's access to social media platforms, making ethical decision-making in online participation increasingly important within schooling contexts.

Africa, with a population comprising mostly young people (40-48%) (Ephraim, 2013), is expanding its online community. ITU (2017) reported that youths aged 15-24 accounted for 40.3% of the continent's internet users. In 2024, worldwide, 79% of people aged 15-24 used the Internet, 14 % points above the rest of the population (65%) (ITU, 2024). This unprecedented growth in internet users is driven by mobile phones, as most people access the internet on these devices.

Mobile cellular subscriptions reached 8.9 billion in 2023, surpassing the global population (ITU, 2023), and have since increased to 9.1 billion (Taylor, 2025). In Botswana, Statistics Botswana reported that mobile cellular telephone subscriptions increased by 0.7% from 4,348,010 in the last quarter of 2022 to 4,379,999 (Statistics Botswana, 2023). It should be noted that these figures reflect the number of active SIM cards rather than unique individual users, since many people own more than one cellphone subscription.

1.1.1. ICT Environment and social media activities in schools

Botswana has made massive strides in making ICTs accessible. The government believes that ICTs will play a significant role in transforming the economy from a government- and mineral-dependent model to a private-sector, innovation-led, diversified economy (BNPC, 2022). Such ICTs include, in particular, the Internet and social media, which are central to this study due to the proactive drive the Botswana government has adopted to integrate ICTs into people's lives. It is also important to note that the ICT landscape is increasingly encompassing emerging technologies, such as artificial intelligence (AI), machine learning (ML), robotics, and big data analytics. However, these fall outside the scope of the present research. The World Summit on the Information Society (WSIS, 2003) Tunis Declaration of Principles B6:38 highlights the necessity to create an enabling environment at national and international levels for the Information Society to flourish, which the government of Botswana is taking seriously through policies such as the National ICT Policy (Maitlamo) and investment in broadband infrastructure and the expansion of broadband through BOFINET. As Botswana works towards securing its place in the Fourth Industrial revolution (4IR) the Botswana Digital & Innovation Hub and

initiatives such as SmartBots (National Digital Transformation Strategy) and GIGA which is a collaboration of effort from the Government of Botswana, ITU and UNESCO are striving to connect all schools as and communities at large to the internet helping people become digital citizens

The growth of the ICT sector in Botswana is a result of the liberalisation of Botswana's telecommunications in 2006, as well as other efforts, such as the government's National Broadband Strategy, launched in 2019, which outlines the country's plans to connect the whole country. This is managed by Botswana Fiber Networks (BOFINET), a state-owned wholesale provider of national and international telecommunications infrastructure. The National broadband strategy aims to provide affordable, reliable broadband services to all citizens, regardless of their location or income level. To realise this, the private sector is encouraged to invest in broadband infrastructure by providing various forms of support, including tax incentives.

The NTELETS II project (2009-2011) which was a partnership between Government, Mascom and BTC was a successful rural telecommunications development programme that aimed to provide communities with access to voice, data, and internet services, and to supply, install, commission, operate, and maintain network infrastructure in rural areas of Botswana. Many *Kitsong* centres (community telecenters) were established to enable people to access services such as photocopying, scanning, and internet access. These have since been upgraded to the Botswana Post and The Botswana National Youth Council (BNYC)

The Ministry of Communication, Science, and Technology also unveiled a project called i-Partnership, a computer ownership program for government employees and unemployed youths that enables them to purchase computers at a reduced cost through a government scheme and to work from home. Several applications were processed through a website created to facilitate the service.

Several health initiatives have been undertaken in Botswana since the country embraced ICTs. They include installation of local area network (LAN) and Wide Area Network (WAN), Integrated Patient Management System (IPMS), the health Professionals Registration System which maintains a database of all health practitioners and professionals in the country, Warehouse Management System (WMS) at Central Medical Stores to manage the procurement and distribution of drug supply, Library Management System for Institutes of health Science

(IHS) and provision of Internet services to students, District Health Information System to provide accumulated health information from districts, Blood management System (BMS) and a website for the Ministry of Health to inform the public on the objectives and activities of the ministry. A study involving 420 healthcare workers in Botswana found that the adoption of IPMS improves performance, is highly productive in a rigorous healthcare setting, helps medical practitioners deliver quality healthcare services, and benefits society at large by enabling faster and more efficient services (Seitio-Kgokgwe et al., 2023).

The Botswana government also introduced ICTs in schools on a broad scale, and each school has a computer lab with internet connectivity. Through Thuto Net, a sprawling project that incorporated schools' connectivity agenda to link all secondary schools to the Internet, computers have been supplied to schools and connected to the Internet, thus enhancing their use (Lebele, 2016). In 2013, 78% of primary schools and 100% of secondary schools in Botswana were utilising computer-assisted instruction, and all public secondary schools were connected to the internet (UNESCO, 2015). Current initiatives include Classmate Online a very important tool for online learning.

Botswana has invested a lot in fiber networks and this has boosted its transition to being a digital economy. The Trans-Kalahari Fiber Optic Project, completed in 2009 with connections into the West African Cable Systems (WACS), Eastern Africa Submarine Cable System (EASSy) and SEACOM cables, which ensure efficient telecommunications infrastructure, including voice, data and internet services, extends to major towns and villages (Government of Botswana E-Government Strategy, 2013). Building on this, a new route, the Botswana Kalahari Fiber, connecting Botswana to the Equiano subsea cable in Namibia, has been completed by Paratus, a leading telecommunications provider having been commissioned in 2024. These developments lay a very strong foundation for the adoption and use of ICTs in the country.

1.1.2 Types of social media

The use of the internet is almost synonymous with the use of social media. The term social media refers to technologies that facilitate social interaction, collaboration, decision-making, and marketing (Bratton & Candy, 2013). The focus of this study is on social media, which can integrate other technologies, including the internet, computers, and cellphones. It has the potential to drive social, economic, and political development. Early social media developments

included bulletin board systems and chat rooms, popular in the 1980s and 1990s. Currently, there are several types of social media worldwide.

Social networking sites are a type of social media that allows users to find and add friends, colleagues, and contacts, connect with workplace, school, and college networks, and share life experiences (Bollapragada, 2012). Through signalling, users can create identities and portray themselves as they wish, a process crucial for adolescents in a phase of rapid growth and development (Ahn, 2011). Through these identities, users of social network sites connect with friends they are familiar with and new ones. It is the latter that concerns parents, as they are not comfortable with their children interacting with strangers on social networking sites. They believe it poses a risk to children's safety, as these strangers could harm them (Boyd, 2014). Relationships on social media platforms depend heavily on trust.

Social networking sites as we know them today began to emerge in the early 2000s, with the development of Friendster in 2002, LinkedIn and Myspace in 2003, and Facebook in 2004 (Nickson, 2009, as cited in Peslak et al., 2012). Facebook has evidently become a preferred choice for people across all age groups (Basaran, 2017). By June 2017, Facebook had reached 2 billion users worldwide (Chaykowski, 2017; Nowak, 2017). Social networking accounts for a significant share of all online activities, enabling people to create profiles, create and share content, communicate, and download materials. A key feature of social network sites is the creation of profiles. Profiles feature a user's name, location, school affiliation, occupation, and personal interests and these can be updated at any time as one wishes (Ahn, 2011).

Moreover, social networking platforms have the advantage of integrating various features from other social media platforms. For example, Myspace allows users to upload and access videos, photos, music, games and blogs. YouTube videos can also be embedded on the Myspace platform, and there is access to classifieds. Social network sites are used in business to market products and promote brands, in the lives of both young and old, where they socialise and share ideas, and in education, where many schools and institutions, especially universities, utilise them to communicate with students and staff. Thus, Individuals, institutions, and companies use a wide range of social media tools according to their needs. "Their widespread use makes social networks a compelling platform through which to engage school communities: if not youngsters themselves, certainly their parents and wider families" (MacIntosh & Utecht, 2012, p. 169).

Status updates and event invitations enable parents to stay informed about their children's activities at school, as notes can easily get lost along the way.

Blogs and microblogs are another type of social media. These include platforms like X formerly, Twitter. They are websites that enable users to input textual and multimedia content. Individuals or communities typically maintain blogs, which are generally arranged in reverse-chronological order. They are two-way conversation journals that enable users to post and read others' content. Microblogging platform X allows users to post texts of up to 280 characters or up to 25000 characters if you are a subscriber. Tumblr, a microblogging platform, permits users to post text, photos, quotes, links, chat, audio and video (de Zwart et al., 2011). Blogs are characterised by ease of setup, editing, and publishing, with no need for sophisticated computer language. Content can be formal or personal, and recent entries are easily cited since they are published in reverse-chronological order. Blogs have proved crucial for pedagogy as “with a single click of the mouse, classes can engage in conversations with people from around the world and get authentic feedback” (Hokanson & Long, 2012, p. 5).

Olatokun and Moremedi (2011), in a study of internet access and monitoring in Botswana, found that blogs were the least blocked applications. X can be helpful in post additional materials such as links to articles and videos in order for students to continue with their learning even if classes are over, set-up specific feeds to enable all students to see and monitor certain events, develop a feed for your students in order to tweet about important dates, upcoming events, and assignments, as well as class news, connect with other students, lecturers, as well as parents in order to increase communication and build community, follow posts of other lecturers' in order to keep up with the latest teaching trends, to get ideas, and to support one another, share ideas and collaborate with lecturers and students from other classes, schools, and departments. (Wiid et al., 2014, p. 715) However, there is a need for clear rules and guidelines on the use of blogs. Media sharing on social media is also very common currently. Photo-sharing social media allows registered users to upload, edit, and share photos with friends, either privately or publicly. The applications have privacy settings that allow users to interact at the level of openness they choose. However, it should be noted that social media is public by default, and sometimes users are either not aware of changing these settings, prefer not to change them, or are preoccupied

with other activities on social media, resulting in these settings remaining on their default public settings.

Flickr, a photo-hosting and sharing site founded in Canada by Ludicorp in 2004, is one of the leading online communities, offering image and video hosting. As of 2023, the service has more than 5 billion images uploaded to its servers (Colorado State University, 2023). Membership is free, but there are limits on file size and the number of photos and videos that can be uploaded. Unlimited uploads and larger file sizes can be purchased for an additional fee. Instagram is another popular photo-sharing social media platform, and it has been confirmed that roughly six-in-ten Americans aged 18 to 24 use it (62%) (Vogels & Gelles-Watnick, 2023).

Additionally, YouTube is primarily used for sharing videos, including music, movies, how-to, and lecture content, and is quite popular among teens, in Africa as well. Wiid et al. (2014) highlight the benefits of YouTube for searching video-clips under specific topics that can be used in the classroom to deliver lessons more memorably, organise playlists to enable students to easily find and watch all relevant and approved videos on a topic, record lessons and post them on YouTube for students to review them whenever they want to, create interactive videos by adding quizzes, comments, and more to it. The processes empower students to become independent learners rather than the traditional one-directional mode of teaching (Maisiri & Hikwa, 2013). Roodt and Peier (2013) investigated the prospects of using YouTube in class for a class of 2nd-year undergraduates at the University of Cape Town. They found that its use was successful and led to increased student engagement.

Virtual worlds are websites that simulate the real world, utilising three-dimensional (3D) technology to create a realistic appearance. Virtual social worlds, such as Second Life, World of Warcraft, Roblox, Minecraft, Decentral, and Fortnite, have gained significant popularity in the popular and business press (Kaplan & Haenlein, 2009). These virtual reality sites enable users to form virtual social communities, play games and own property. Many universities, especially in the developed world, offer virtual tours, allowing people to experience what the universities look like in reality. Virtual reality enables users to create avatars that represent them. In virtual reality, users interact with other users and objects, often disclosing personal information, location, education level, and occupation to other players once they have established trust (Dudley et al., 2010). Communication between avatars is most often conducted in written format, either through

chat or instant messaging, although a voice-chat option was introduced in August 2007 (Kaplan & Haenlein, 2009).

Wikis are a popular form of social media, and Wikipedia is the most used. Although people are free to add or delete entries on a wiki, there are rules and guidelines governing user interaction, and any changes are recorded. Wikis facilitate collaborative work among groups while still maintaining personal accountability (Sandifer & Davies, 2012). Benefits of wikis to pedagogy include lesson summaries notes collaboration, embedding of video games for studying course content, concept introduction and exploratory projects, learn shares individual assessments and e-folios rewards (blog or wiki hall of fame, nomination of others for recognition), classroom organisation collaborative writing curricular plans,) for students and meeting planning reporting professional development documentation and home- school, PTO, event planning and sharing and vendor relations for administrators (Sandifer & Davies, 2012).

Text messaging applications are also popular. Several text messaging applications available today are classified as social media. Some applications are linked to social networking sites; for example, Meta formerly Facebook owns the text messaging applications WhatsApp and Messenger. Lesitaokana (2016, p. 36) noted how “young people in Botswana also regard texting as a ‘simple, inexpensive and personalised’ way to communicate with other mobile phone users in an obtrusive manner”. Among the text messaging services used in Botswana, as noted by Lesitaokana, were WhatsApp and BlackBerry Messenger before it was discontinued. Text messaging applications allow people to communicate synchronously, unlike traditional phone texting. WhatsApp allows users to send messages and make calls over the internet. WhatsApp groups interact, deliberate, and collaborate on various topics using text, photos, videos, and voice messages. WhatsApp has become so pervasive that it is common to find people communicating on it during church services, whilst driving, in class, and in many other inappropriate situations. Whilst these applications provide efficient and cheap communication channels, other ills, such as sexting, have also arisen.

Social bookmarking sites like Pinterest are also becoming increasingly popular, enabling users to find information on their interests, organise it, and communicate with others who share similar interests. Dixon (n.d., 78) explains that social bookmarking helps individuals organise and access website links. In the educational context, tools like Pinterest enable users to curate and organise a

variety of digital resources—such as images, videos, and stories—for future teaching and learning activities (Wiid et al., 2014). As users of social media sites rummage through massive amounts of content, it is not always possible to write down the web addresses of sites with content of interest, and social bookmarking tools are the answer. Social bookmarking is also gaining popularity in education, as libraries post trustworthy web links on their websites, allowing teachers and students to collaboratively work through these bookmarks (Dixon, n.d.; Wiid et al., 2014). Pinterest is also suitable for presentations and projects (Wiid et al., 2014).

1.1.3 Social media use in Botswana and worldwide

Many people use social media to access various online services, and the numbers continue to increase rapidly. There were 4.95 billion social media users worldwide in October 2023, representing 61.4% of the total global population and 79% of adults (Data Reportal, 2023). Facebook is the most popular social media platform, with 3.030 billion monthly active users, followed by YouTube with 2.491 billion, WhatsApp with at least 2 billion, Instagram with 2 billion, and WeChat with 1.327 billion (Data Reportal, 2023).

For teenagers, social media has become an integral part of their daily life, similar to watching television. This increased access to the internet and other digital technologies means that children can interact, connect, share, study, and develop in previously inconceivable ways (Boyd, 2014; Singh & Power, 2021). About 95% of the age group 13-17 of Americans are using YouTube and many teens allude to using TikTok, 62% of teens using Instagram and 59% in this group using Snapchat, Twitter (23%), Twitch (20%), WhatsApp (17%), Reddit (14%) and Tumblr (5%) (Vogels & Gelles-Watnick Pew Research, 2023). Botswana, with a total population of 2.65 million, had 1.10 million social media users as of January 2023, representing 41.3% of the total population (Data Reportal, 2023).

Mobile telephony has been a catalyst in promoting the use of social media around the world. The two have almost become synonymous. In Botswana, a five-year review conducted by BOCRA from 2019 to 2023 found consistent growth in mobile phone subscriptions, with a 31% increase from 3,353,337 subscriptions in March 2019 to 4,379,999 in March 2023 (Botswana Communications Regulatory Authority [BOCRA], 2023). The three providers of mobile telephony services in Botswana include Botswana Telecommunications Corporation (BTC), Mascom Wireless (Pty) Ltd (Mascom), and Orange Botswana (Pty) Ltd (Orange). Botswana

Fibre Networks (BoFiNet) provides wholesale internet, and several other Internet Service Providers (ISPs) offer value-added services and internet on a smaller scale.

On the contrary, fixed telephony subscriptions, offered exclusively by BTC, have seen very little growth since the advent of mobile telephony. As of 2023, they stood at 91,625, representing a 1% increase from the previous year, when 90,158 were recorded (BOCRA, 2023). Mobile telephones have captured the largest share of the Botswana Telecommunications market. More than 85.3% of Botswana's population uses a cellular mobile phone mainly for chatting, sending and receiving short messages and for playing music (Statistics Botswana, 2017). As many as 20.58% of students in senior secondary schools in Botswana are using the internet for information about education as 14.94% were using wikis, 25.14% were downloading movies, images, music, watching television or video, or listening to radio or music via social media and using social media to access content for assignments, tests, and for communication and sharing ideas online (Statistics Botswana, 2017). Basupi and Mhozya (2017) confirm that students in secondary schools in Botswana use social networking sites such as YouTube, Twitter, and Facebook to communicate with classmates and friends.

Social media is utilised in various aspects of life, including health, transportation, communication, education, entertainment, business, commerce, marketing, research, collaboration, politics, and government, among others. Boyd (2014) notes that young people are growing up in a context where technology mediates much of their daily life, shaping their experiences and opportunities. For example, Masilo and Seabo (2015) noted that social media is used to enable politicians to connect with the electorate, provide government services online, and serve as a campaign tool during elections. In business, it is used for communication amongst employees within and between organisations, and in health, it is used for telemedicine (Nyangeni et al., 2015).

Social media has also become a transformative tool for supporting learning (Lennie, 2013) and enabling communication between teachers and students (Basupi & Mhozya, 2017; Lee et al., 2015; Nussbaum-Beach, 2012). The most significant benefit of social media use has been collaboration, enabling students to communicate with one another about assignments, lectures, and tests, as well as during crises (Henderson et al., 2014; Saini & Mir, 2023). A web-based survey conducted at a large public university in the Midwest of the United States of America

(USA) revealed that undergraduate students used various forms of social media as information sources (Kim et al., 2014). Libraries are also utilising social media platforms to deliver services to their clients, most of whom are students worldwide (Auld & Henderson, 2015; Duncan-Daston et al., 2013; Kim et al., 2014; Kwanya & Sitwell, 2015; Teston, 2008). They utilise blogs, Facebook and other social media tools to communicate with clients, including students, about loan extensions, overdue material and other activities taking place in the library.

1.1.4 Complexities and challenges brought by social media use

Bynum and Rogerson (2004, p. 1) pointed out that “the information revolution is not merely technological, it is fundamentally social and ethical”. Social media has impacted people’s lives both positively, in enhancing learning and communication, but has given birth to several ethical issues around the protection of users’ rights, user privacy guarantees, credibility of information, roles and responsibilities of users, cybercrime, intellectual property rights, identity theft, digital divides and more (Mutula, 2013). Others have corroborated the ethical issues of the new ICTs, including Dhiman (2023), Maisiri and Hikwa (2013), Matingwina (2015), Ming et al. (2015) and Oladokun (2013), who also highlighted issues around privacy, access, property and accuracy and recommended education and ethical empowerment on social media use.

While these ICTs have become prevalent in education, there is a poor understanding of ethical issues related to teaching, learning, and research, especially in developing countries (Cilliers, 2017). Students should use ICTs, such as social media, ethically so that their full benefits may be realised. Many youths today are illegally downloading music, videos, and software from social media and even sharing them with colleagues. Sometimes, when youths do it, they are not even aware that they are contravening their country's laws and regulations, as well as global ones. Teston (2008), in a study of young technology students, reported that 68% of students in the US believe software piracy is legal and cited other studies that had produced similar results, such as Hopper (2000). Teston argues that because today’s young students in technology education represent tomorrow’s innovators, their ethical development regarding intellectual property is of particular concern. The author further notes that although there are opportunities to utilise the teaching time in class as they could easily “leverage the topic of intellectual property rights for connections in math (economics), social studies (copyright laws and cultural differences toward piracy), art (intellectual property types), science (the rights of inventors), and even language arts

(plagiarism)” (Teston, 2008, p. 75) very little was being done by teachers to educate students on software piracy.

Students and other users access material which is inappropriate for their ages and social standing. Some access, watch and use pornographic and other inappropriate content, while other young people access violent games, which in turn impacts their character and promotes violence in society. There are higher chances of students watching pornography either intentionally or unintentionally as they use social media. WebMD Health News noted that research has revealed that 42% of children between the ages of 10 and 17 have seen pornography online, 2 out of 3 of them unintentionally and 1 out of 3 intentionally (Palfrey & Gasser, 2016). Masrom et al. (2013) note that when children are exposed to pornographic material, they are likely to practice what they see, and this causes severe psychological problems, which is a major cause for concern. Watching pornography leads to the loss of virtues of love, respect and happiness (Sadleir & Harrison, 2017).

Many issues have arisen regarding privacy and social media use (Dhiman, 2023). Kirley (2015) noted that in the absence of face-to-face communications and immediate responses, the sense of social interaction is dull. As a result, users are giving out much information and “this openness and transparency through social media has completely shaken our expectations of privacy” (Nussbaum-Beach, 2012, p. 64). The generation of children growing up today does not share similar expectations of privacy, which makes many adults uncomfortable with social media (Nussbaum-Beach, 2012). Young people sometimes disclose a great deal of information under peer pressure and the desire to establish their online identities (de Zwart et al., 2011, citing Click & Connect, 2009). At times, these privacy breaches occur intentionally, when someone exercises their right to freedom of expression, and at other times, unintentionally. Unfortunately, these privacy breaches can still result in harm even many years after they are committed (Dhiman, 2023; Hauptman, 2008).

Research has shown that excessive social media use negatively impacts academic performance, as students tend to spend excessive time on it and become addicted (Basupi & Mhozya, 2017; Dhiman, 2023; Mwadime, 2012). Social media addiction precipitates loneliness, depression, and anxiety, leads to loss of focus on important things and negatively impacts a person's mental health, relationships, and productivity (Dhiman, 2023). There is evidence of excessive social

media use, especially among students, as many struggle to regulate the time they spend on it. Oyetunde (2017) notes that Facebooking has generally become one of the habits that takes up students' study time, along with activities such as visiting the library and time spent reading notes and study materials. Although parents and teachers try to regulate the time students spend on social media, students use the technology multiple times without those responsible for them even noticing. Many use social media sites well into the night, even when their parents think they have long retired to bed. Many students use social media even at school without their teachers noticing. They spend most of their time on social media doing things unrelated to their schoolwork, which sometimes leads to poor academic performance. As a result of this downside of social media in the US, more than 40 states and the District of Columbia are suing Meta, the parent company of Facebook and Instagram, alleging its platforms intentionally make use of addictive features that harm children's mental health (Anderson & Faverio, 2023), which is undoubtedly a cause for concern.

Today, there is a circulation of inaccurate (fake news) and incomplete information, as well as gossip on social media. As such, users of social networks and other computer networks, including students, must be vigilant. Mosweu (2020), in a study of social media use and the proliferation of fake news during the COVID-19 pandemic in Botswana, noted that, with the outbreak of the coronavirus, incidents of fake news became rampant as people sought to break the news about the virus first. However, misinformation can have profound adverse effects on people's lives, especially when the person disseminating the inaccurate information holds a position of power and authority (Alakurt et al., 2012; Mason, 1986). Rosenstiel compared misinformation to a social condition like crime, arguing that it is not a problem to be fixed once, but requires ongoing monitoring and adaptation (Anderson & Rainie, 2017). Gossip can be spread carelessly and assume unwarranted authority, even when the allegations are questionable, which could be a big problem given the ease with which information spreads online (Dhiman, 2023; Laidlaw, 2017).

Lesitaokana (2015) noted that though smartphones have been instrumental in bridging the digital divide in Botswana, they have also led to challenges, including inappropriate use even at funerals, which are supposed to be solemn occasions, addiction to texting and social networks, which have eroded social and cultural norms and principles in the Setswana way of life. Lebele (2016) asserts

that the inappropriate use of ICTs, notably Facebook, which is considered a dating site by unemployed youths in the Letlakeng region of Botswana, discouraged others from making productive use of ICTs.

1.1.4.1 Tensions between positive and negative aspects of social media

Due to the tensions between social media's positive and negative aspects, many ethical dilemmas arise. Ethical dilemmas are “problems for which no choice seems completely satisfactory, since there are good, but contradictory reasons to take conflicting and incompatible courses of action” (Kitchener, 2000, p. 2 as cited in Mullen et al., 2017, p. 37). It is the urge to act, combined with the uncertainty of which course to take, that gives rise to dilemmas (Robinson, 2003). Ethical dilemmas that may arise while using social media by students and others include, but are not limited to, the balance between freedom of expression and the right to dignity, the right to access information and safety, the interplay between the need to promote access to information and the safeguarding of privacy, and the tension between freedom of expression and societal norms.

1.1.4.2 Ethical dilemmas and human rights

The rise of social media has sparked ongoing tensions between the right to free speech and the right to safety. While cyberbullying statistics are increasing globally, public opinion is divided on how to balance these competing rights, with some calling for greater accountability from technology firms (Duggan, 2017). In America, for example, students’ right to free speech, which is protected under the United States Constitution, may negatively impact efforts to address cyberbullying in schools, as schools do not want to restrict a student’s right to free speech (Mullen et al., 2014). Whilst many Americans have experienced harassment in one way or another, it is especially prevalent in the lives of younger adults, as 67% of 18- to 29-year-olds have been the target of these behaviours online (Duggan, 2017). When asked how they would prioritise these competing issues, 45% of Americans indicated it is more important to let people speak their minds freely online; a slightly larger share (53%) expressed that it is more important for people to feel welcome and safe online (Duggan, 2017).

Furthermore, dilemmas arise between the need for safety and the need to socialise. For example, on social media platforms like Facebook, users receive numerous friend suggestions and requests. There are times when social media users face dilemmas and must decide whether to connect with potential friends or prioritise their privacy and safety by only connecting with friends they know.

The challenging question is “to connect or not to connect”. However, establishing meaningful friendships is a crucial component of development, as friends offer advice, support, entertainment, and a connection that prevents loneliness (Boyd, 2014). Ahn (2011) reports that high school students who actively use social networking sites such as Facebook and MySpace tend to exhibit higher levels of social capital than their non-member peers, and that this social capital is associated with improved academic outcomes. Also, when users prioritise their safety, they miss out on opportunities to make friends. It is also evident that safeguarding safety, such as tightening privacy settings, will also safeguard against ills like falling prey to pedophiles, discrimination, judgment, and ensure dignity.

Sometimes social norms conflict with human rights, such as the right to freedom of expression, leading to ethical dilemmas. Malinga-Musamba (2013) conducted an exploratory study that examined how aspects of traditional practices in Botswana, which appear helpful and beneficial within families and communities, can also infringe on human rights. Garegae (2008), as cited in Malinga-Musamba (2013), argues that as children interact with parents and relatives, they become socialised into the cultural and social norms of society (Malinga-Musamba, 2013). According to Article 12 of the Convention on the Rights of the Child, “States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child...” (United Nations, 1989, p. 5). This emphasises that children have the right to express themselves freely.

In some instances, there is a clear clash between school and societal norms (Botho/Ubuntu) and people’s rights to access information and rights to freedom of expression as advocated for by the Universal Declaration of Human Rights, and governments, and these dilemmas sometimes lead to unethical conduct. At initiation schools for example, children are taught to honour and ungrudgingly obey older people. This creates an ethical dilemma between social norms and universal human rights, which can manifest on social media as users choose between making their voices heard, suppressing them, or remaining indifferent, as social norms dictate. It used to be taboo to talk or write about certain issues but with social media users discuss everything. Traditionally, youths are not supposed to express their views and opinions clearly, especially in the presence of adults. And yet social media has defied this. For instance, people of all ages and social standing are on social media, including parents, teachers, and others, which can impact

senior secondary school students' freedom of expression, as they may be labelled disrespectful by some adults on these platforms. Students are not free to express themselves, as some content they may share could infringe on school rules and norms and may be judged or even result in punishment.

1.1.4.3 Privacy, safety, and parental duty

Ethical dilemmas arise between respecting privacy and the parental and institutional duty to protect. For Africans, teachers and other guardians are empowered to monitor young people's online activities under Article 10 of the African Children's Charter, which provides that the right to privacy may be limited by a parent or guardian exercising reasonable supervision of their child's conduct (Singh & Power, 2021). However, this raises ethical concerns, as it may intrude on young people's privacy. Demers and Sullivan (2016), in a study of the legal and ethical considerations of electronic communications and social media for psychoeducational practice, note that psychologists may review personal information available online without clients' knowledge or permission. In the long ethnographic study undertaken by Boyd between 2005 and 2012, it emerged that teens resented their parents' monitoring and responding to what they posted online, and that teens whose parents were not conversant with social media used it to enjoy a private life. Schools and parents do it to ensure children's safety, but in so doing, they disregard children's rights to privacy.

1.1.4.4 Ownership, access, and academic integrity

Students face dilemmas between the right to ownership of material and the right to access it. It is not always clear whether students must respect the rights of information owners or exercise their right to access information. One of the greatest threats to intellectual property rights posed by social media is plagiarism, which is "the deliberate or reckless representation of another's words, thoughts, or ideas as one's own without attribution in connection with submission of academic work" (Cilliers, 2017, p. 2). Often, students trying to complete assignments find themselves copying from social media sites like Wikipedia without even acknowledging the source. Plagiarism is a well-known offence in academic institutions. But it could also be a culmination of the ethical decision-making process underway in users' minds as they try to resolve dilemmas between the rights to own and access information. The technological affordances of new media make it easy to copy content, pictures, and videos from sites. Cilliers (2017), in a survey of the

ethical issues of ICT use among undergraduate students in the Eastern Cape, South Africa, found that first-year students were plagiarising and recommended that the curriculum include an authorship component.

Another dilemma is choosing between property rights and the need to share. Whilst it is prudent to safeguard rights to ownership of music and software, societal norms also hold that people must be kind enough to share with others. Some factors influence users' choices among courses of action, but this does not always guarantee ethical decisions. Sometimes piracy occurs because potential users see content as too expensive and rights protection as exclusionary to people experiencing poverty (Stückelberger, 2014).

1.1.4.5 Artificial Intelligence and emerging technologies

The social media landscape has been significantly impacted by Artificial Intelligence (AI) and chatbots, with people increasingly relying on AI to perform their tasks. Intertwined with the problem of academic integrity are Artificial Intelligence (AI) tools, such as Chat Generative Pre-Trained Transformer (ChatGPT), which are essentially content aggregators that scour extensive texts, extract data, and use it to generate responses to given queries. ChatGPT can clearly answer user questions and can generate human-like text with flowing, understandable connections. Among other things, people use ChatGPT to write essays, scholarly articles with references, debug computer code, compose music, write poetry, give reviews, and help with exams (Zhou et al., 2023).

ChatGPT-generated text has proven capable of evading plagiarism checkers, such as Turnitin (Keith, 2023). Plagiarism detection software compares student work to a database of pre-existing work and identifies identical phrases and sentences. Because ChatGPT-generated text is rephrased to appear original, it is difficult to determine whether the work has been copied. Therefore, it raises ethical concerns associated with the use of AI language models, including bias, Privacy, and Abuse (Zhou et al., 2023). Society starts questioning whether students have to utilize these AI tools. Other institutions of learning have responded by banning these AI tools, but it may not be the proper response because people have rights to access information. In situations involving technology like this, educating users is more effective. It is well known that ICTs have downsides, but the benefits always outweigh them. Teachers must work hard to ensure that students use AI tools like ChatGPT responsibly.

1.1.4.6 Teacher–student boundaries and professionalism

Other dilemmas that students and teachers face include those related to the boundaries of interaction between themselves and their teachers on social media, as well as the right to communicate with whoever one wishes—the values of respect, dignity, and freedom of communication clash, leading to ethical dilemmas. Use of social media platforms by both teachers and students blur the boundaries between professional and personal lives and causes ethical concerns of social media co-habitation involving (a) teachers sharing their private identities and practices in their profiles with their students which might be contrary to the expectations placed on them as professionals, and (b) students asking to befriend teachers on the networks and, in doing so, compiling information about the teachers which may be contrary to expectations, or even place the teacher in a compromising position (Henderson et al., 2014).

Both teachers and students face dilemmas about where to draw the line exactly. Questions arise concerning whether students and teachers should befriend each other online. Doing that would mean that students and teachers would be privy to some private information they are not usually aware of. At times, students learn things about their teachers that may affect their respect for them, and vice versa. It affects either party's dignity. A person's dignity and integrity can be superficial or deep, depending on the extent to which one respects others' rights by discharging one's responsibilities to them (Dolamo, 2013).

Society and schools expect students to be respectful to their teachers at all times, as reflected in Section 5.3.9 of the Gaborone Senior School prospectus, which states that “Students are expected to respect their teachers and non-teaching staff at all times” (Gaborone Senior School, 2018). This is also in line with the African *Botho* or *Ubuntu* principle, a notion that encourages humaneness towards others and cultivates virtues that portray such. In a study of ethical dilemmas relating to boundary management of secondary school teachers' use of Facebook in Sweden, “two categories of dilemmas, namely those to do with teachers' moral responsibility for pupils' actions and those to do with how teachers appear on social media”, were identified (Thunman & Persson, 2017, p.7).

1.1.5 Responses to social media complexities and challenges

There is a negative side to the use of social media, and much commentary on young people's media use has focused on these negative aspects of the technology, although others argue that this

has been overemphasised (Boyd, 2014; de Zwart et al., 2011). The overemphasis on the negative impact of social media tends to overshadow its benefits. Chen and Bryer (2012) note that social media is not being fully utilised in education. It could be because of the reservations people have about using the media, given the risks and ethical issues that arise, which could be resolved if people receive proper education on social media use.

Parents' schools and governments have responded to the issues arising out of the information society, like loss of privacy, inappropriate content including pornography, hate speech, misinformation and others with censorship, bans, filtering and sometimes with reprimands and arrests. Hauptman (2008) notes that this is because controlling what others read, view, or hear is an innate human characteristic. Olatokun and Moremedi (2011) in their study of internet access, use and monitoring policies in Botswana organisations showed that most organisations block some internet sites (57%), with banking/financial services organisations having the largest number of applications/sites blocked (72%), followed by education/school (71%). The sites mostly blocked were those that host pornography, gaming and video downloading sites like YouTube. Results also revealed that many organisations used a dedicated systems administrator (40%) to monitor internet use, followed by those that used software (25%).

1.2 Rationale of the study

As of before the Covid 19 pandemic, , at the four senior secondary schools included in this study, students were not allowed to bring their cellphones to school and if they were found with thesetheywould will be penalised. Ledumang Senior Secondary School, in its list of offences (no. 29 in the prospectus), listed the use of cellphones on school premises as an offence that could attract a BWP 500 fine to reclaim it (Ledumang Senior Secondary School, 2018). St Joseph's Senior Secondary School stated that a student had to pay BWP 100 to reclaim a confiscated cellphone, as cellphones were not allowed on the school premises (St Joseph's College, 2018). Lee, Lee and Kim (2015, p. 124) note, "though there is an argument that excessive use of SNS interferes with learning in youth, considering the fast growth of SNS as a daily communication tool, it is better to encourage meaningful applications than to prevent its use". De Zwart et al. (2011) advocate for an approach that allows a certain amount of risk-taking among senior secondary school students, which they claim is essential for child development. It is interesting to note that whether it is being used in the school or not, it still impacts students and the

education system in a major way, notwithstanding that research carried out on the effects of social media on education has focused at the tertiary level and has not extended to investigate the effects of social media on schools (Henderson et al., 2013).

Palfrey and Gasser (2016) suggest that, instead of prohibiting and blaming video games for every tragedy, parents and teachers can educate children on how to navigate the complex, fluid environments in which they are growing—and assert that it is a matter of life and death. There is a need to better understand the ethical dilemmas students face on social media and how they resolve them, so that the full benefits of these technologies can be realised. This study recognises that there is a lack of investigation into the implications of students' online activities and how students perceive them (Auld & Henderson, 2015). Whilst there have been several studies in this area, they have mainly focused on the general impact of social media use among tertiary education students, teachers, and other adults, rather than in high schools. What is missing in these studies is a specific focus on the ethical nature of issues and conflicts arising from the use of ICT and their effects on the moral culture of the school community (Swenson-Lepper & Kerby, 2019). This study, therefore, aims to investigate the ethical dilemmas associated with the use of social media and the decision-making processes high school students consider when attempting to resolve them.

Jafarkarimi et al. (2016, p. 545), quoting Kohlberg (1975), assert that “in order to increase the moral responsibilities that consequently cause ethical actions, the only option is to help individuals’ development through initial stages to higher stages of moral development” and suggest that this aim could be achieved by moral discussions and education based on ethical dilemmas. Societies need to engage with this sooner rather than later, as the effects of social media use continue to be felt worldwide, and the consequences of inaction can be dire.

1.2.1 Position of study in the field of ethics and information studies

This study is situated within the broader field of ethics, specifically information ethics. Ethics refers to “the study of right and wrong conduct” (Ruggiero, 1997, p. 4). Information ethics, on the other hand, seeks to address the responsible use of information technologies, including computers, the internet, cellphones, and social media. The field of information ethics focuses on ethical values such as privacy, accuracy, property, access, dignity, respect for human rights, confidentiality, and more (Mason, 1986; WSIS, 2005). Ethical dilemmas arise when any of these

values conflict with each other. The field of information ethics has also fostered debates around Intercultural Information Ethics, which focuses on the impact of information and communication technology (ICT) on different cultures, as well as on how specific issues are understood within different cultural traditions, which African Information Ethics is part of (Capurro, 2007, 2009).

1.2.2 Overview of research sites

The study was conducted in four senior secondary schools in Gaborone, the capital city of Botswana: Gaborone Senior Secondary School, Naledi Senior Secondary School, Ledumang Senior Secondary School, and St Joseph's College. These schools have been major beneficiaries of the country's robust ICT infrastructure development. Gaborone Senior School is located near the central business district. The school was established in 1965 as a Junior secondary school and was transformed into a Senior Secondary School in 1966. Today, it runs as a 42-stream school, with 21 Form 4 and 21 Form 5 classes. St Joseph's College, located in Kgale View, is a government-aided mission school established in 1928 by the Catholic Church. Although it is a mission school, it is government-financed and follows the curriculum set by the Ministry of Education and Skills Development of Botswana, and currently offers 38 streams. Ledumang Senior Secondary School, established in 1994, is located in the Ledumang suburb, north of Gaborone, and is a 42-stream school. Naledi Senior Secondary School, located in New Naledi and opened in 1978, is also a 42-stream school. Each senior secondary school has an enrolment of around 1600 students, including Form 4s and Form 5s.

The education system in Botswana comprises three levels: primary, secondary, and tertiary. The primary level runs from Standard One to Seven. The secondary level comprises junior secondary schools, which run from Form 1 to 3, and the senior secondary level, which runs from Form 4 to 5. From Form 5, students proceed to universities and other tertiary institutions or seek employment. Subjects taken at senior secondary school level include Mathematics, Science, English, Social Studies, Development Studies, Geography, History, Design and Technology, Art and Design, Computer Studies, Fashion and Fabrics, Home Management, Food and Nutrition, Agriculture, Commerce, Business Studies, Accounts, Physical Education and Religious Education. All schools have a guidance and counselling programme to promote social and moral growth. Moral education has been taught in junior secondary schools since 1999. It stresses that in a liberal environment, the task of moral education is to provide students with the intellectual

skills that will enable them to make informed and responsible decisions about issues deemed to be of moral importance and promote in students a sense of deep concern for the well-being of others and the nation (Dinama, 2012). Thus, an investigation into the ethical dilemmas of social media use will also help evaluate the moral education programme in schools.

1.3 Statement of the problem

Social media influences the lives of students both at home and school in many positive ways, but has also led to complexities and exposure to unethical practices and behaviour such as pornography, cyberbullying, identity theft, online fraud, and more. Dhiman (2023), Matingwina (2015), Ming et al. (2015), Mosweu (2020) and Mutula (2013) outline issues related to the use of social media platforms, including those relating to privacy, property, credibility/accuracy, and accessibility. Ethical dilemmas, therefore, confront students and other social media users, requiring them to make tough decisions. Unfortunately, this comes at a time when adolescents are most vulnerable to developmental influences and most susceptible to risk-taking and peer pressure (Harrison-Evans & Krasodonsky-Jones, 2017). Such ethical dilemmas may include freedom of expression versus the safeguarding of human dignity, access to information versus safety of users, rights to access information versus privacy of social media users, and social media cohabitation, in which teachers share their private identities and practices on their profiles with their students (Henderson et al., 2014).

Botswana has made significant efforts to promote the use of ICTs across all sectors of the economy, including education, where most schools have computers with internet connectivity and relevant policies that support their effective use. The government has promulgated relevant policies, including the National ICT Policy (Maitlamo), the Revised National Policy on Education (RNPE), the National Development Plan (NDP), Vision 2016, and now Vision 2036. Maitlamo comprises seven pillars: e-government, connecting Botswana, e-legislation, e-education, e-health in Botswana, connecting communities, and economic diversification, which encompasses e-commerce, e-agriculture, and e-tourism (Government of Botswana, E-government Strategy, 2013). Initially focus in these policies was on “access but not on pedagogical significance and best practices of ICTs in schools” (Mpoeleng, 2016, p. 47) However the situation is changing now with efforts going towards teaching society how technology is to be leveraged

and promoting responsible use of ICTs to achieve growth. However users of ICTs including social media users who are the focus of this study still face challenges..

Students are not immune to the challenges of using social media; in fact, they are the most susceptible, as they are still young and, in some instances, lacking maturity while remaining heavy users of these technologies. However, despite the challenges, high school students must confront the use of social media, and there is a lack of research and adequate literature on managing ethical dilemmas and decision-making processes (Ballard & Swenson-Lepper, 2023). Most of the studies done thus far are about tertiary students and education and have tackled specific issues of social media, such as software piracy, privacy, access and use (Bányai et al., 2017; Harncharnchai & Inplao, 2015; Jacobson & Forte, 2011; Li et al., 2015; Maisiri & Hikwa, 2013; Nyangeni et al., 2015; Teston, 2008; Westrick, 2016). Most studies have been conducted outside the Botswana context. A recent study by Basupi and Mhozya (2017) in Botswana is among the few to examine the use of social media by secondary school students. But this study and a few others, such as Mwadime's (2012) study on the impact of online social networking on academic performance among high school students in urban areas in Kenya, address the issue of social media use on academic performance.

Research on the ethical use of social media in high schools is lacking. This is bound to affect social values and the moral fibre of our society, leading to irresponsible and inappropriate use of social media, including, but not limited to, disregarding others' legitimate rights relating to privacy, confidentiality, dignity, freedom of expression, and freedom of access to information. Moreover, poor management of ethical dilemmas may put students at risk of cyber fraud, identity theft, cyberbullying, cyber stalking, and more. Kuzu (2009) notes that unattended ethical problems will grow larger and affect societal values and the moral fibre of our society, and urges all stakeholders to discuss these problems to create a consensus that sustains equality and justice in the access, storage, and distribution of information.

Prudent management of ethical dilemmas encountered by students on social media may require multipronged and multidimensional decision-making models to facilitate ethical reflection in a multicultural context (Bartels et al., 2014). Basram (2017) emphasises the importance of investigating students' ethical behaviour to reduce unethical practices and enhance the effectiveness of precautionary plans and actions. Different decision-making models may be

necessary to align ethical reflection with decision-making, while recognising cultural and other biases (Al Ali et al., 2012). Jafarkarimi et al. (2016) note that the lack of attempts to theorise unethical behaviour on social network sites systematically leads to precautionary plans and actions failing, and that this failure affects society and people bound to the internet and other ICTs. Therefore, this study aims to develop a decision-making model for social media use in the context of senior secondary schools in Botswana, guiding students, teachers, and parents in engaging with and resolving ethical dilemmas.

1.4 Research objectives

The purpose of this study was to investigate the ethical dilemmas associated with social media use among students in senior secondary schools in Gaborone, Botswana. The study sought to address five main objectives:

1. To evaluate the status of social media use amongst senior secondary school students in Botswana.
2. To determine the ethical issues that students in senior secondary schools in Botswana encounter when using social media.
3. To identify the ethical dilemmas students are confronted with when using social media.
4. To find out the ethical decision-making process of students when they encounter ethical dilemmas on social media.
5. To assess the role played by teachers and parents in assisting students to resolve ethical dilemmas while on social media.

1.5 Research questions

The study sought to address the following research questions:

1. What is the status of social media use amongst senior secondary school students in Botswana?
2. What ethical issues are encountered by students in senior secondary schools in Botswana in the use of social media?
3. What ethical dilemmas do students encounter when using social media?

4. How do students make ethical decisions to resolve ethical dilemmas they encounter on social media?
5. How do parents and teachers assist students to resolve ethical dilemmas on social media?

These research questions are addressed through a review of existing literature and an empirical investigation. The first question on the status of social media use amongst senior secondary school students in Botswana is examined in the introductory chapter 1 in section 1.1.3 as well as in the literature review (Chapter 3, Section 3.4 and explored in section 5.4 of the Data analysis Chapter 5. The second question on the ethical issues students encounter is examined in the literature review (Chapter 3, Section 3.8) and further explored in the data analysis (Chapter 5, Section 5.5). The third question, focusing on ethical dilemmas, is discussed in the literature review (Sections 3.9 and 3.12) and addressed empirically in Chapter 5 (Section 5.4.13). The fourth question on ethical decision-making is drawn from moral reasoning frameworks in the literature (Section 3.13) and is empirically tested in Chapter 5 (Section 5.4.15). The final question regarding the role of parents and teachers is addressed in the literature (Section 3.10) and explored in the empirical study through interviews with teachers and parents (Sections 5.8 and 5.9). Each of these questions is also discussed in Chapter 6 in relation to the research questions.

1.6 Derivation of hypotheses and assumptions

The theoretical and conceptual frameworks outlined above have informed the formulation of the hypotheses for this study. They primarily draw on the Potter Box Model of Ethical Reasoning, alongside ethical theories such as Deontology, Consequentialism, Virtue Ethics, and the WSIS (2005) Framework, which are integrated into the conceptual framework that guides the study.

To empirically explore these relationships, the following null hypotheses were developed. These were intended to test how the identified variables influence students' ethical decision-making and ethical breakthroughs when confronted with moral dilemmas in their use of social media:

1. Core Null Hypotheses

H1₀: There is no significant relationship between exposure to ethical issues and the frequency of ethical dilemmas.

H2o: There is no significant relationship between ethical dilemmas and ethical decision-making (composite).

H3ao: There is no significant relationship between moral values (Botho/rights/principles index) and ethical decision-making.

H3bo: There is no significant relationship between moral support (parents/teachers) and ethical decision-making.

The following exploratory propositions are considered assumptions that inform the conceptual framework but are not directly tested as hypotheses in this study:

H4o (Moderation—Support): There is no significant moderating effect of moral support on the relationship between ethical dilemmas and ethical decision-making/breakthrough.

H5o (Moderation—Values): There is no significant moderating effect of moral values on the relationship between ethical dilemmas and ethical decision-making/breakthrough.

These hypotheses, together with the underlying assumptions, form the foundation of the quantitative strand of the study and are further illustrated in the conceptual framework in Figure 2.5. To maintain alignment with the conceptual framework, the first four hypotheses represent the core causal pathways to be tested quantitatively. The last two hypotheses, although exploratory, also emanate from the framework and capture possible moderating influences of moral support and moral values. These were initially treated as assumptions but are now articulated as exploratory hypotheses to ensure that all elements of the framework are explicitly connected to the empirical strand of the study.

1.7 Significance of the study

The study aimed to explore the ethical dilemmas that senior secondary school students in Botswana encounter when using social media. The outcome of this study would help, among other things, to create awareness among students, teachers, and parents about the responsible use of social media; inform pedagogical approaches, policy development, and the legal framework; and support curriculum development. The study would also help build students' capacity to become critical thinkers and to address the ethical dilemmas they encounter on social media

platforms. The researcher hoped this study would culminate in an ethical decision-making model that helps students make informed ethical choices when using social media platforms.

1.8 Delimitation of the study

The research was limited to senior secondary school students, as they were nearly completing high school and ready to tackle the world in various areas. Some would be attending tertiary institutions, while others were going to work. They had to be well-equipped with the skills to interact responsibly with social media platforms in public senior secondary schools in Gaborone City, Botswana, and beyond. The study targeted all four public senior secondary schools in Gaborone city. The choice of the four senior secondary schools in Gaborone city was informed by the fact that the majority of people who use social media, including students, are domiciled here (Population Review, 2017; Statistics Botswana, 2014). Students in senior secondary schools, including both males and females aged 18 years and above, were the focus of this study, as they are at a crucial stage of adolescence, facing significant developmental issues and requiring the most guidance. They are at a stage in their lives when they are susceptible to peer pressure, and this study would therefore help them become aware of the ethical issues of social media use. Teachers and parents also participated in this study because they work closely with students and share joint responsibility for their upbringing.

1.9 Outline of chapters

This section provides a chapter-by-chapter breakdown of how the thesis is organised.

Chapter One: Introduction

Chapter one covers the introduction, provides a general overview of social media technologies, outlines the statement of the problem, research objectives, research questions, the significance of the study, the delimitation of the study, and the structure and organisation of the thesis.

Chapter Two: Theoretical Framework

Chapter two provides the theoretical underpinnings for the study. In particular, the Potter Box model of decision-making, which incorporates tenets of Consequentialist, Deontological, and Virtue theories, is presented. In addition, the WSIS Action Line 10 framework is discussed.

Chapter Three: Literature Review

Chapter three presents a review of the empirical and theoretical literature on the use of social media in education and other areas, issues in students' social media use, ethical dilemmas associated with social media use, and the roles of teachers and parents in supporting students on social media. This chapter builds on the conceptual base established in Chapter two, but does not revisit the theoretical models already discussed there.

Chapter Four: Research Methodology

Chapter four discusses research paradigms, research approaches, research design, the study population, data collection procedures, sampling methods, the validity and reliability of the research instruments, data analysis techniques, and ethical considerations.

Chapter Five: Data Analysis and Presentation of Results

Chapter five presents data analysis and results using quantitative and qualitative procedures.

Chapter Six: Discussion of Findings

This chapter presents a discussion of the findings, drawing on the extant literature and theory. The study's originality is also set forth.

Chapter Seven: Summary, Conclusion and Recommendations

This chapter presents a summary of the findings, conclusions, and recommendations, including areas for future research.

CHAPTER TWO

THEORETICAL FRAMEWORK

2.1 Introduction

The increasing use of social media by students in senior secondary schools presents both opportunities and ethical challenges. While social media enables communication, collaboration, and access to information, it also raises ethical dilemmas related to privacy, misinformation, cyberbullying, digital identity intellectual property and others. These dilemmas often require students to make moral decisions in online spaces where ethical boundaries are not always clear. There are a number of theories and models that are relevant for studying ICTs although there is no specific ones for social media.

2.2 Theoretical framework

Theory provides a critical foundation for academic research, offering a structured lens through which complex phenomena can be understood and analysed. It not only informs the research design, methodology, data collection and analysis, but also shapes the overall direction and coherence of the study (van der Waldt, 2021). According to Grant and Osanloo (2014, p. 12), “the theoretical framework is the foundation from which all knowledge is constructed (metaphorically and literally) for a research study”. This implies that the theoretical framework of a study underlies and guides all components of the research, including the statement of the problem, objectives, research questions, methodology, data analysis, research findings, and conclusions.

This section surveys broader ethical theories and frameworks commonly used to analyse technology-mediated communication and behaviour. Alongside the study’s principal model—the Potter Box Model—we briefly consider complementary approaches, including Disclosive Ethics, Rest’s Four-Component Model, the Privacy, Accuracy, Property and Accessibility (PAPA) model, the Uses and Gratification theory (UGT), and the Theory of Planned Behaviour (TPB). These frameworks illuminate different aspects of the socio-technical landscape: some foreground features embedded in technologies themselves, while others emphasise human cognition, values, and contexts of use. Mapping their contributions and limits clarifies why the Potter Box is

adopted as the study's primary analytical lens and how insights from the other approaches inform specific constructs in this research.

2.2.1 Theories and models in ICT and Media Studies

In this section, the theories relevant to ICT and media studies are discussed. Some of these theories have informed the study, although they have not been adopted in their entirety. There seems to be a consensus amongst the researchers who have developed ethical reasoning models that the first thing that one must do when confronted with an ethical dilemma is to analyse and have an understanding of the situation and recognition that the problem has an ethical bearing (Maisiri & Hikwa, 2013; Mwadime, 2012; Watley, 2014), and all these theories prove this fact.

Theories discussed in this section include the Uses and Gratification Theory, Theory of Reasoned Action, Theory of Planned Behaviour and others. The Privacy, Accuracy, Property, and Access (PAPA) model, developed by Mason in 1986, and Rest's Four Component Model (1986) also feature prominently in the study of computer ethics, highlighting the challenging issues of the information age, which are also covered here. In media ethics studies, the Potter Box Model has been utilised.

2.2.1.1 Disclosive Ethics

Disclosive Ethics, associated chiefly with Philip Brey, aims to reveal non-obvious moral features embedded in computer systems (Tadele, 2013). It presumes that technology is not morally neutral and aims to dig deep to uncover its hidden effects. Boyd (2014) argues that technology does not create these problems, even if it makes them more visible, and that news media often delights in using technology to publish a wide range of youth stories. However, it seems true that some qualities of social media raise ethical concerns. The mere fact that social media sites allow users to remain anonymous can create problems. When people are assured of anonymity, they are even more inclined to engage in unethical behaviour, such as stalking and insulting other users, who may not easily identify the perpetrators. The nature of social media technologies makes traditional forms of regulation complex. For example, continuous connectivity through smartphones means that young people are frequently online outside spaces of parental mediation (Harrison-Evans & Krasodonsky-Jones, 2017).

According to Brey, Disclosive ethics comprises three stages: the Disclosive level, where embedded moral issues are investigated; the theoretical level, which leads to the development of

theory; and the application level, where the theory is applied to the issues identified at the disclosure level. Light et al. (2008) used Disclosive Ethics to study the creation of profiles, publicising activity, and how this data and images may be interpreted on Facebook, and noted that several moral concerns arise, such as fictitious profiles and unacceptable behaviour, because of Facebook's lack of scrutiny and validation. However, Disclosive Ethics may be highly technical and expensive, requiring the participation of multiple experts and even taking a long time. This theory also tends to focus on the technology itself and not the user, in which case it may not be instrumental in the study of moral dilemmas with a focus on the development of an ethical decision-making model, and for these reasons, the researcher is not going to adopt that approach, although in some ways it may inform the study.

2.2.1.2 The Uses and Gratification Theory (UGT)

The Uses and Gratifications Theory is well recognised in the communications field and was developed by Elihu Katz, Jay Blumler and Micahel Gurevitch in 1974. Although initially used mainly for traditional media, it has also found favour with people studying the phenomenon of social media. Uses and Gratifications Theory, also known as Needs and Gratifications Theory, is a model that focuses on why people use certain media rather than on the content itself (Mwadime, 2012). It also focuses on how people utilise various types of media connected to social platforms. Mwadime (2012) employed this theory to investigate the effect of online social networking on academic performance among high school students in the Westlands Sub-County, Nairobi, Kenya. This theory is better suited to studies that focus on why people adopt certain technologies rather than others and on the extent to which their needs are met. However this theory may inform this study by shedding light on the motivations that often lead users to seek information and into ethical dilemmas. It is because users are trying to satisfy a need for example entertainment, social validation, accurate information, self-expression, information for school assignments and others.

2.2.1.3 Theory of Reasoned Action /The Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (TPB), developed in Psychology by Icek Ajzen in 1991, has been used by several authors to study ethical decision-making (Baker & White, 2010; Cameron et al., 2012; Maisiri & Hikwa, 2013; Masrom et al., 2013; Pelling & White, 2009). Ethics deals with human actions and beliefs (Alakurt et al., 2012). Therefore, the TPB is predominant and continues to be applied to ethical decision-making in an IT context (Masrom et al., 2013). It is a

theory that relates a person's behaviour to their beliefs and was developed from the theory of Reasoned Action (TRA). The variables in the TPB include normative beliefs, subjective norms, control beliefs, perceived behavioural control, behavioural intention, and behaviour. According to this theory, behaviour is determined by one's intentions to perform the action; intentions are influenced by attitude, subjective norm, and perceived behavioural control (PBC) Attitude resonates with an individual's positive or negative assessment of performing the behaviour. Subjective norm refers to the perceived social pressure to perform or not perform a behaviour, and PBC refers to the perceived ease or difficulty of performing the behaviour (Pelling & White, 2009).

Maisiri and Hikwa (2013) employed the Theory of Planned Behaviour in their investigation of Information ethics and the use of social media in higher education in Zimbabwe. Jafarkarimi et al. (2016) also utilised this theory to examine behavioural intention regarding ethical dilemmas on social networking sites in Malaysia. Pelling and White (2009) employed the theory, incorporating additional variables of self-identity and belongingness, to predict high-level social network site use intentions and behaviour in a sample of young university students in Australia aged 17 to 24 years. Results revealed that attitudinal, normative, and self-identity factors influence high levels of social media use. Such findings can be used to inform strategies that aim to modify young people's high levels of use or addictive tendencies for social networks.

Whilst the Theory of Planned Behaviour is invaluable for explaining how people choose between right and wrong, it may useful for studying ethical dilemmas in social media use, as a background to the causes of unethical choices and what values are considered by the user to determine an action. The values in ethical dilemmas are sometimes in conflict but often they are all good. This study intends to contribute to efforts to develop a simple tool that is easy to comprehend and useful for young people's decision-making on social media platforms. It does so by focusing on the Potter Box model, the classical ethical theories and the WSIS framework but also utilises tenets from many different ethical theories and models including the Theory of planned behavior although not directly.

2.2.1.4 Mason's Privacy, Accuracy, Property and Access (PAPA) model (1986)

Mason (1986) developed a model for investigating the ethical issues of the information era, known as the PAPA model, which has also informed this study. Mason argued that the four

issues of Privacy, Accuracy, Property and Access dominate information ethics discourse. Privacy concerns how much about oneself and others one is supposed to divulge to the outside world, and under what circumstances. Accuracy relates to the credibility and integrity of information. Property relates to the authority one has over information and primarily relates to intellectual property. In this era, technological affordances make copying and pasting easy, and the use of other people's text, photos, and other media is rampant. Many young people and adults are downloading music and pictures without due care for whether it is right or not. Access and accessibility refer to the ease of obtaining information. It examines the mechanisms in place to ensure that users of the information receive it on time, without major hindrances or barriers. This raises issues of copyright and censorship. Many educational institutions, for example, tend to block or filter content they deem inappropriate to users, especially schoolchildren. One would find that many schools block social media sites like YouTube because institutions fear that students will become addicted to them, which may lead to poorer performance in their schoolwork.

Many researchers have utilised the PAPA model to investigate ethical issues in information and have demonstrated its usefulness in this area (Basaram, 2017; Maisiri & Hikwa, 2013; Peslak, 2016). For example, Basaram (2017) applied it to investigate ethical information sharing on Facebook among university students, while Masrom et al. (2013) applied it to investigate internet behaviour among Malaysian primary education students. The main variables identified and applied in these studies are privacy, accuracy, property and access, which are also relevant to this study. The issues of privacy, accuracy, property, and access are central to the responsible use of ICT and, consequently, to the field of information ethics in which this study is entrenched. The PAPA framework is a well-tested model that can be easily used in teaching and learning practices, and it can be extended to consider ethical issues specific to the current status of instructional-related information-sharing facilities on social networking sites (Basaran, 2017).

However, scholars such as Fairweather in Bynum and Rogerson (2004, p. 145) have criticised the PAPA model for being based on only four issues. Yet, many issues have arisen due to the introduction of computer technology. There are issues in information ethics that are also trending today, including safety, fairness and others that cannot necessarily be explained using the PAPA model as well as those that are coming up because of AI and big data. Alakurt et al. (2012) recommended that more research be carried out that focuses on a greater variety of ethical issues,

other age groups, and higher-order thinking skills. It is in this light that the researcher decided to use the World Summit on the Information Society (WSIS) framework, as it includes these values, as well as others such as dignity, respect, tolerance, and safety.

2.2.1.5 Rest's Four Component Model (1986)

In his quest to explain ethical behaviour, Rest developed a four-component model in 1986 comprising Moral awareness, Moral judgment, Moral commitment, and Moral action. The first stage is moral sensitivity, which involves understanding the situation as moral, interpreting how an act will affect the self or others, and empathising with those involved. Moral judgment involves deliberating on what one is supposed to do and explaining the ethical values that influence one's decisions. Moral motivation involves making a personal commitment to do what is right and ethical. The moral action component involves executing the ethical choice using the skills one possesses and overcoming impediments such as fatigue and frustration (Moore & Chang, 2006). Rest's model has the disadvantage of suggesting that the resolution of ethical dilemmas follows a well-thought-out, carefully deliberated course, but this is not always the case, as some decisions are made based on ethical impulses, depending on whether the experience is new or familiar (Watley, 2014). This may be so especially with young people, as "some judgements may be quick and intuitive, driven by emotions and rationalised afterwards" (Watley, 2014). Whether the decision-making process is carefully thought out or intuitive, Watley proposes developing tools to aid people in the decision-making process. One such tool is the Potter Box Model (PBM), which serves as the foundation for this study. Rest's model, however, informs this study in that the steps are instrumental in moral reasoning situations.

While some of the theories and models discussed in this section provide valuable insights and have made significant contributions to the literature on ethics in ICT and media environments, they were not adopted as the core theoretical framework for this study. This is because they either focused too narrowly on individual ethical decision-making processes, lacked significant applicability to the specific context of this study, or did not adequately address the institutional and leadership dimensions relevant to ethical dilemmas in students' use of ICT. As such, although these frameworks were considered and are acknowledged here, the decision was made to adopt a more contextually appropriate lens, which is discussed below.

2.2.2 Principal theories underpinning the study

This study is underpinned by the Potter Box Model of moral reasoning, the classical ethical theories of Deontology, Consequentialism and Virtue, as well as the WSIS framework. In this research, a theoretical framing is essential for grounding the investigation within the broader discourse on ethical ICT use, guiding the interpretation of findings, and contributing to knowledge development in the field.

2.2.2.1 The Potter Box Model (PBM)

The guiding framework for this study is the Potter Box Model (1965) of ethical decision-making. The constructs that comprise this model will guide an investigation into the ethical dilemmas of social media use among senior secondary school students in Gaborone, Botswana. The Potter Box decision-making model was developed by Professor Ralph Potter of Harvard University's Divinity Department in 1965. This model is widely used in media studies and has been employed by, amongst others, Carveth (2006; 2011), Fleming et al. (2018), Smudde (2011), Spence and Van Heekeren (2005), and Styles (2005). The model will train the student to ask important questions, such as: “Who else would be impacted? What precedent might I set? What personal, employment and social interests will my decision impact? How much will I hurt and assist innocent third parties?” It prompts one to use systematic analysis rather than make impulsive decisions without moral justification (United Nations Office on Drugs and Crime [UNODC], n.d., p. 6).

The Potter Box Model of Ethical Reasoning was developed to address the complexities of ethical decision-making, especially in media and communication contexts. Its foundation lies in ethical pluralism, the idea that individuals can draw on multiple moral philosophies rather than adhering strictly to a single ethical doctrine. Rather than prescribing an absolute solution, the model encourages structured, reflective decision-making by guiding individuals through multiple perspectives. This pluralistic, process-oriented structure allows users to confront moral ambiguity with rational deliberation, making it widely applicable across disciplines, including communication, journalism, and now ICT ethics.

In one instance, Carveth in 2011 used the Potter Box to analyse the dispute between Google and Facebook that took place in that year whereby Facebook approached the public relations firm Burson-Marsteller, to run a smear campaign against Google, which would require the firm to

pitch stories to the media claiming that Google was invading the privacy of users (Fleming et al., 2018). He explains in his analysis that the PR company had three major loyalties: itself, society, and its customers. They chose to prioritise themselves first by boosting their portfolio and finances on Facebook, thereby even breaking their code of conduct. In doing so, the firm neglected the public's best interests while thoughtlessly driving Facebook to make an unethical decision. Using the Potter Box, Carveth (2006) suggests an alternative route for the PR company, which would preserve its loyalty to the client, the public, and itself by rejecting Facebook's anti-Google proposal.

The Potter Box model is suitable for any contentious issue (Carveth, 2006). Carveth et al. (2006) used the Potter Box model to analyse facts emerging in the press regarding lawsuits against the pharmaceutical company Merck after several deaths had been attributed to use of their arthritis/pain killer drug Vioxx. This study confirmed that the Potter Box is important for analysing the ethics of any decision, particularly in cases involving differing forces, and may also be suitable for less formal analysis. Users of PBM have the flexibility to apply various ethical principles, which makes it more suitable for senior secondary school students from diverse backgrounds and enables them to apply the moral principles instilled by those who mainly influence their lives, such as parents, siblings, teachers, and religion.

The PBM can also be easily modified to inform other new developing models. Some researchers, such as Fleming et al. (2018), have used a modified Potter Box model (PBM) to analyse ethics case studies and teach structured ethical reasoning, mapping facts, values, principles, and loyalties to guide decisions in digital/media contexts. Using a modified version of the Potter Box model developed by Loy D. Watley (2014) as an analytical framework, they examined a student journalist's ethical actions and responses to a state representative's tweet. Consequently, they developed recommendations that journalism students and media advisors at institutions may utilise when faced with similar situations.

According to Potter's model, the decision-making process takes place in four parts, namely giving the empirical definition or gathering of facts, identification of the values, appealing to ethical principles that can be used to resolve the situation and finally a determination of loyalty, which means one must think about who is supposed to have their allegiance. Using the Potter Box, an ethical dilemma can be carefully and holistically assessed before deciding on the moral

lens of the decision-maker, as well as through alternative lenses and perspectives (Fleming et al., 2018). The model is dynamic and adaptable, allowing multiple and varied analyses (Watley, 2014; Willis et al., 2013).

It is important to note that the Potter Box model does not follow a rigid or linear path. Ethical decision-making often involves revisiting previous steps as new information or perspectives emerge. For example, after identifying one's loyalty, one may reconsider the values at stake or refine the original definition of the ethical issue. This cyclical or iterative nature of the model is crucial, as it acknowledges the complexity of real-life moral dilemmas. Users are encouraged to move back and forth between the quadrants until a well-rounded and ethically justifiable decision is reached. The model compels the decision-maker to assess whether the weight of moral duties to specific publics justifies an action that could harm others or lead to adverse outcomes (Watley, 2014). It is used as a tool for determining and prioritising competing loyalties (Fleming et al., 2018).

Ethics models need to be relevant to specific groups of people and contexts. Ling and Hauck (2016) propose that counsellors must consider several factors when choosing a decision-making model and should specifically ensure that the model is accessible and appropriate for practitioners at all experience levels. They claim that, because some ethical decision-making models are unclear, they are suitable only for more experienced practitioners.

The Potter Box Model (PBM) is a simple model (Watley, 2014) and may be the most convenient for young people in senior secondary schools, as it utilises only a few straightforward questions that do not require advanced formal training in ethical philosophy. Values and principles can be used at each individual's level of understanding, allowing both novices and experts to benefit from the model's structure (Watley, 2014). The model makes the decision-making process more transparent, deliberately addresses those affected and conflicting obligations, and allows individuals to articulate and deliberate on the process behind their judgment. The model uses ethical pluralism, in which the decision-maker may apply several ethical philosophies to generate a series of possible outcomes for any given dilemma. In this way, it is the most suitable for people, as it caters to a diverse array of backgrounds. Moreover, it does not provide an exact answer but considers several possible ethical responses. Some researchers have recommended PBM as a valuable tool for decision-making in online environments. A study in Kenya

recommended training editors in methods such as the Potter Box Model of reasoning for day-to-day decision-making, as well as the development of practical procedures for quickly sourcing and selecting images for online publication, especially for breaking news (Gathara, 2020).

Although the Potter Box Model is selected as the principal lens for this study because of its structured, teachable steps, it is essential to acknowledge its constraints—particularly in youth contexts and fast-moving, networked environments. While it is widely praised for its flexibility and accessibility, it is not without limitations. It is criticised for oversimplifying moral reasoning by assuming users have access to a range of ethical knowledge and are capable of impartial analysis. In reality, some users, particularly adolescents, may rely on a limited moral vocabulary or be influenced by peer pressure. Furthermore, the model does not resolve ethical dilemmas on its own; it merely provides a framework for considering them. As such, the quality of the outcome depends heavily on the user’s depth of reasoning and moral maturity.

Figure 2.1 presents the Potter Box Model of Reasoning.

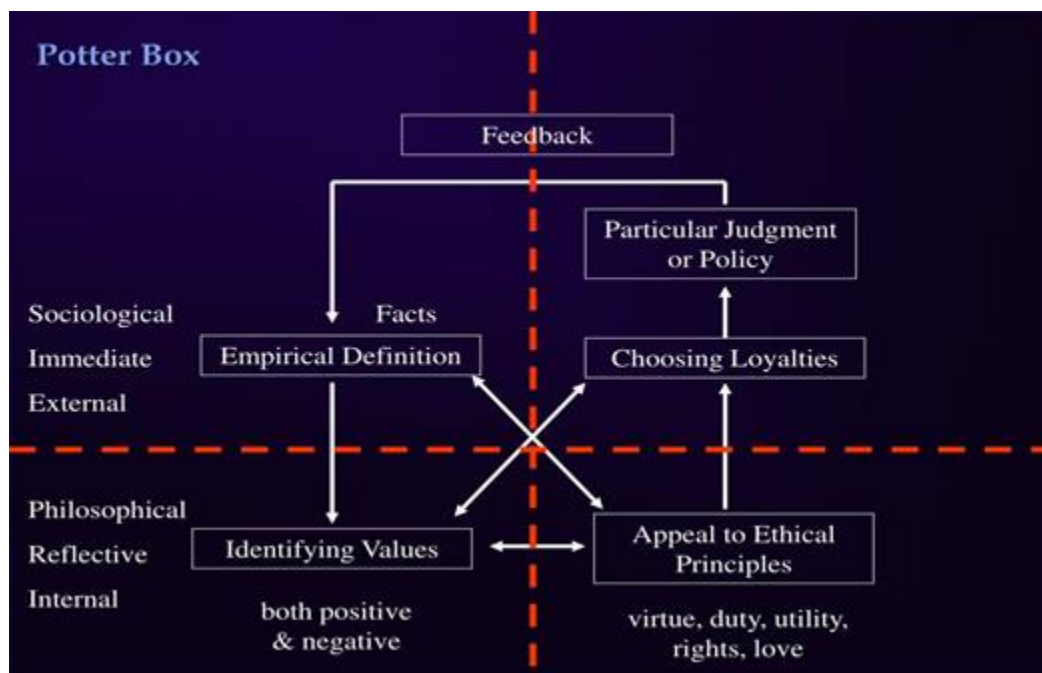


Figure 2.1: Potter Box Model of Reasoning

Source: Studylib.net

The Potter Box Model was used to address decision-making in ethical dilemma situations in relation to research questions one to five as follows:

1. What is the status of social media use amongst senior secondary school students in Botswana?
2. What ethical issues are encountered by students in senior secondary schools in Botswana in the use of social media?
3. What ethical dilemmas do students encounter when using social media?
4. How do students make decisions to resolve ethical dilemmas they encounter on social media?
5. How do parents and teachers assist students to resolve ethical dilemmas on social media?

Components of PBM

a) Empirical definition

The first box of PBM gives background information and defines the situation or explains the problem. This is the stage at which one recognises that an ethical issue exists. Issues such as privacy breaches, teacher and parent snooping on students, intellectual property rights violations (such as plagiarism), and threats to safety and dignity are identified. Details on how the situation has unfolded are given.

b) Identifying values

The second box of PBM contains the values at stake in the moral situation that has arisen. Roberts and Grant (2010) note that values can be categorised in several ways, including moral, logical, professional, aesthetic, personal and societal values. Moral values include justice, fairness, truth, and honesty. Logical values include consistency of thought and wisdom. Professional values include freedom of speech, freedom of the press, the public's right to know and autonomy. Personal values include self-respect and self-control, while societal values encompass restraint and personal freedom. Aesthetic values, such as beauty and imagination, provide a foundation for ethical decision-making. Most of these values are espoused in the WSIS (2005) framework. Importantly, the model demands that values be critically examined. Step two is not only about naming values but also about isolating them from biases, then subjecting them to critical evaluation through principles (Step 3) and loyalties (Step 4). As the presentation on the

Potter Box Model notes, this prevents decisions based on personal prejudice or emotional impulse and instead encourages structured moral reasoning.

c) Appeal to ethical principles

The third stage of the Potter Box Model, the “Appeal to Ethical Principles” quadrant, serves as the moral anchor for ethical decision-making. These principles could be rooted in religion, the legal framework, or philosophy. Normative ethical theories, including Deontological Theory, Consequentialist Theory, and Virtue Theory, are well-founded and used in ethical decision-making across fields and provide a basis for resolving ethical dilemmas. These are discussed in sections 2.2.2.2, 2.2.2.3 and 2.2.2.4. Rawls’s veil of ignorance contributes a rights-based view of fairness, while the ethics of care and love, as proposed by Noddings, bring in relational and empathetic dimensions. Users of the model must select one or more of these principles to guide their actions ensuring that their decisions are not only contextually justified but also morally sound.

Curzer (2014) noted that people do not necessarily appeal to a single principle or ethical theory, and asserts that individuals make moral decisions based on different moral theories in various situations. In this light, the tenets of different ethical theories will be applied through the Potter Box Model in this study.

d) Choosing loyalties

Choosing loyalties in the Potter Box Model requires that the decision maker consider all the people or institutions to whom they owe allegiance and assess how each will be affected by the decision. At a personal level, it could include any group or individual that can be affected by or affect the individual’s actions (Watley, 2014, p. 5). For students, it could be parents, teachers, schools, society, friends, and others, depending on the individual making the decision. The duty of PBM is to help the decision maker ascertain the groups to which they are loyal, decide a potential order of loyalties, and determine how to choose that order, often based on the ethical principle being applied (Roberts & Grant, 2010). Watley (2014) argues that loyalties are crucial in the whole process as they tend to determine how one resolves an ethical quandary and proposes that they could be brought in earlier in the process arguing that “by addressing ‘loyalties’ as the final question, particular obligations may be overlooked and an emphasis on relationships may undermine ethical values” (Watley, 2014, p. 5). He also argues that the word

‘loyalty’ itself may inhibit the search for those affected and suggests using stakeholders instead. Watley developed a modified Potter Box Model.

2.2.2.2 Deontology

The Deontological theory is rule- or duty-based and was advanced by Immanuel Kant (1704-1804), who argued that our rational nature dictates that we have moral duties towards each other, unlike other animals, and that all people have the same moral worth (Tavani, 2013). For deontologists, actions are either right or wrong. The deontological position aligns well with the attempt to create ethical guidelines for use across cultures, platforms, and situational specifics (Bowen, 2013, p. 124).

Deontology

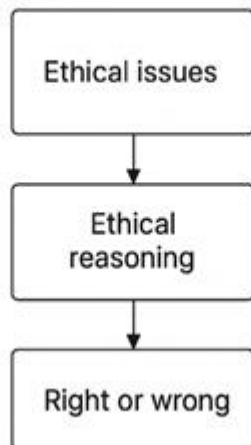


Figure 2.2: Deontology theory

Source: Adapted from Kantian deontological reasoning (Alexander & Moore, 2021)

2.2.2.3 Consequentialism

The Consequentialist theory advanced by John Stuart Mill (1806-1873) and Jeremy Bentham (1748-1832) holds that the right action is that which produces the greatest pleasure or happiness. However, the problem, of course, is that we cannot always predict precisely which choice will cause the least harm (Roberts & Grant, 2010). Moreover, consequentialism appears to prioritise the interests of the majority and overlooks the interests of the few. This theory was applied by Liu and Chen (2012) in a cross-cultural study to determine the rationales of US and Chinese

business students for ethical decision-making, and by Maisiri and Hikwa (2013) in a study of information ethics and the use of social media in higher education.

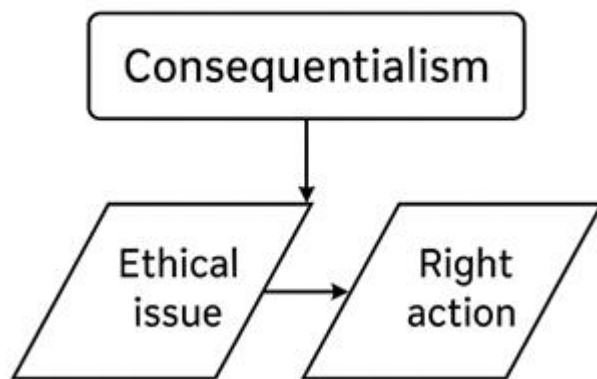


Figure 2.3: Consequentialist reasoning process

Source: Adapted from "Consequentialism," by W. Sinnott-Armstrong, 2022, in E. N. Zalta (Ed.), The Stanford Encyclopedia of Philosophy (Fall 2022 Edition), Stanford University.

2.2.2.4 Virtue Theory (Vallor, 2010)

Virtue theory was advanced by MacIntyre (1984, p. 191) who defines a virtue as "an acquired human quality the possession and exercise of which tends to enable us to achieve those goods which are internal to practices and the lack of which effectively prevents us from achieving any such goods". While governments, institutions and businesses make use of ethical codes to guide ethical decision-making or moral reasoning, there is a need to ensure that people are accountable for their actions on a personal level, rather than simply being answerable to an external regulatory body or the general public in the event of being caught behaving immorally (Doyle & O'Flaherty, 2013). People should have the disposition to act reasonably, inspired by the right reasons and emotions (Hoyos-Valdes, 2018). Virtue ethics, also known as character ethics, emphasises honourable or virtuous character rooted in culture, with shared norms, multiple interpretations, and applications across diverse cultures and traditions (Ess, 2009). Harrison (2014, p.40) points

out, “A virtue-ethical approach would place prominence on the need to reinforce the motivation for young people to do the right thing, especially when no one is watching”.

Parents, teachers, and society all play important roles in instilling virtues such as honesty, respect, love, courage, and justice. Virtues are moulded by the societies in which people live; this takes place over a long period of time, and they are closely linked to the duties in deontology. Brey (2007) notes that virtue-centred morality is found in traditional cultures such as those in eastern Asia and Africa. Virtue ethics considers the context of the dilemma (Vallor, 2010; Mutula, 2013). Virtue theory underpins Intercultural information ethics (IIE) as advocated by Brey (2007), Capurro (2007), Ess (2009), and Wong (2009). Capurro (2007) argues that an intercultural information ethics, which recognises cultural diversity within the global information society, is needed. Global information ethics cannot be practised without understanding the moral systems of different cultures.

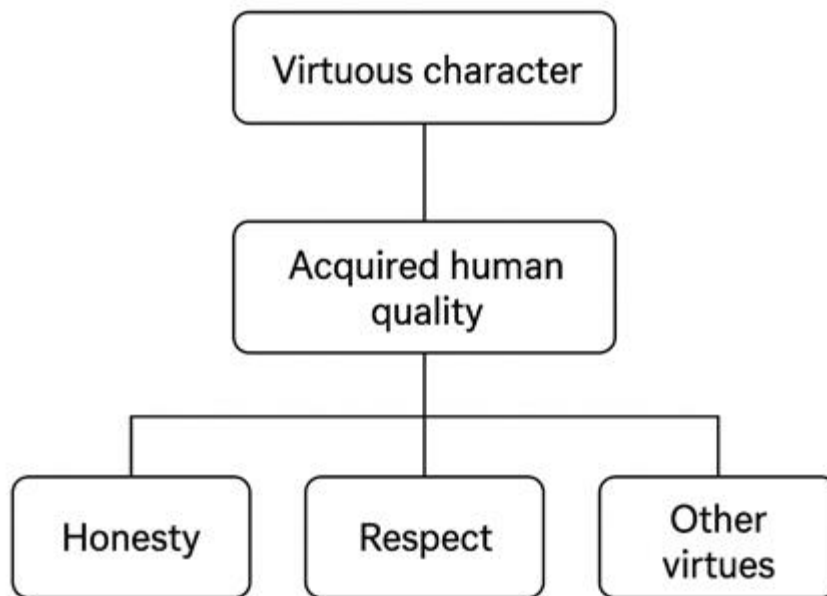


Figure 2.4: Virtue ethics reasoning

Source: Adapted from “Virtue Ethics,” by R. Hursthouse & G. Pettigrove, 2018, in E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Fall 2018 Edition), Stanford University.

2.2.2.5 The World Summit on the Information Society

The World Summit on the Information Society (WSIS, 2005) was mandated by the ITU to spearhead the adoption and use of ICTs for development. The values underlying this study are

espoused in the World Summit on the Information Society (WSIS) framework. It extends the values of the PAPA model of privacy, accuracy, property, and access to include others.. This inclusive framework makes it particularly well-suited to studying youth ethical behaviour online, where a variety of competing values often come into play.

The ethical aspects of information society are articulated in Action Line 10 as follows,

1. The Information Society should respect peace and uphold the fundamental values of freedom, equality, solidarity, tolerance, shared responsibility, and respect for nature.
2. We acknowledge the importance of ethics for the Information Society, which should foster justice, and the dignity and worth of the human person. The widest possible protection should be provided to the family and to enable it to play its crucial role in society.
3. The use of ICTs and content creation should respect human rights and fundamental freedoms of others, including personal privacy, and the right to freedom of thought, conscience, and religion in conformity with relevant international instruments.
4. All actors in the Information Society should take appropriate actions and preventive measures, as determined by law, against abusive uses of ICTs, such as illegal and other acts motivated by racism, racial discrimination, xenophobia, and related intolerance, hatred, violence, all forms of child abuse, including paedophilia and child pornography, and trafficking in, and exploitation of, human beings.

The WSIS (2003, p. 2005) Action Line 10 advocates for the values of human rights, dignity, truth, privacy, respect, honour, and the preservation of life, which transcend the confines of time, place, or cultural norms. These values are also consistent with the Botswana cultural values of “setho” (being humane to other persons), “tlotlo” (respect and obedience to adults) and “maitseo” (good manners), group solidarity, conformity, compassion, human dignity and humaneness, collective unity and solidarity, sharing, universal brotherhood, communalism, interdependence, and hospitality” (Madipeng in Steyn, 2012, p, 112; Mogapi, 1992 in Lesitaokana, 2014) and form a bridge between local traditions and international ethical discourse. . In this study, the

WSIS Framework is integrated as a value-based model that complements the Potter Box's "values" quadrant and reinforces culturally relevant and globally accepted ethical principles. WSIS thus helps contextualise student behaviour within a global digital ethics framework while still recognising the importance of local cultural norms. Sometimes these values conflict, creating ethical dilemmas in which choosing the right course of action is difficult.

2.3 Mapping of theories to variables and research questions

Table 2.1 summarises the relationship between each theoretical framework and the study's variables, as well as the research questions they inform. It highlights the relevance of each theory to the analytical and interpretive processes used in this research.

Table 2.1: Summary of theoretical framework

Theory name(s)	Variables in the theory relevant to study	Corresponding research question addressed or informed by the theory	Relevance (very relevant, quite relevant, less relevant, not relevant)
Potter Box	-social media use -Ethical issues -Ethical reasoning -Decision-making -decision-making support	Research questions (RQ)1 What is the status of social media use amongst senior secondary school students in Botswana? -5 RQ2. What ethical issues are encountered by students in senior secondary schools in Botswana in the use of social media? RQ3. What ethical dilemmas do students encounter when using social media? RQ4. How do students make ethical decisions to resolve ethical dilemmas they encounter on social media? RQ5. How do parents and teachers assist students to resolve ethical dilemmas on social media?	Very relevant
Deontology	-Ethical issues identification -Ethical reasoning -Decision-making	RQ 2-4	Very relevant
Consequentialism	-Ethical issues identification -Decision-making	RQ 3-4	Very relevant
Virtue theory	Ethical issues	RQ 3-4	Very relevant
WSIS Framework	Social media use Ethical issues Decision-making	RQ 1-4	Very relevant

2.4 Conceptual framework

This study employed an integrated conceptual framework that combined the Potter Box Model of Ethical Reasoning, classical normative ethical theories (Deontology, Consequentialism, and Virtue Ethics), and the World Summit on the Information Society (WSIS) framework. Together, these frameworks provided a comprehensive structure for understanding and interpreting how senior secondary school students in Botswana engage with ethical dilemmas on social media.

Decision Flow Diagram: Theories Informing Ethical Decision-Making and Breakthrough

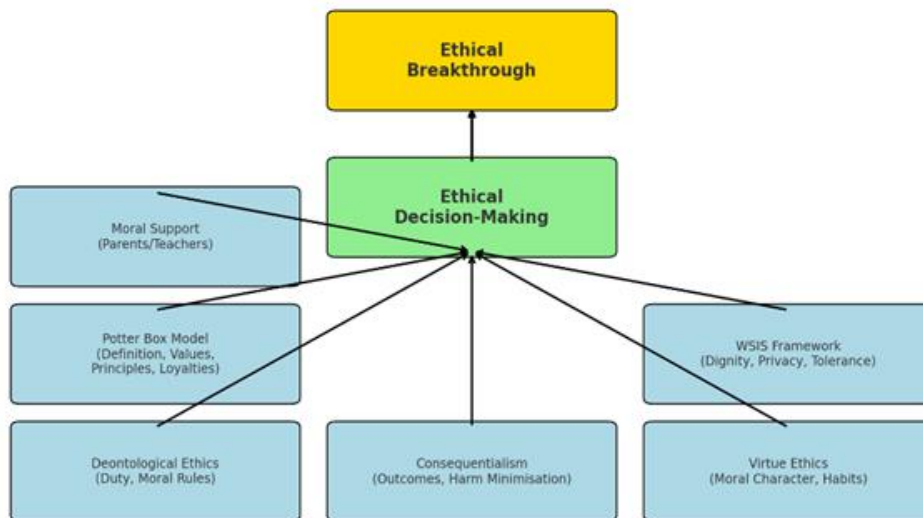


Figure 2.5: Conceptual framework

Source: Author's Compilation

The conceptual framework functioned as both an analytical lens and an interpretive guide throughout the research process. It facilitated the identification of ethical issues (Research Question 2), the clarification of values, the application of moral principles (Research Questions 3 and 4), and the consideration of loyalties in student responses (Research Question 5). Ethical reasoning patterns were further explored through the lens of philosophical theories.

At the same time, the WSIS framework provided a culturally and globally relevant benchmark for assessing the values underlying students' decision-making. The conceptual framework outlined in Figure 2.5 directly informs the hypotheses tested in this study. As shown, exposure to

ethical issues on social media (independent variable) is expected to lead to ethical dilemmas (mediating variable), which in turn influence ethical decision-making and breakthroughs (dependent variable). Moral values and moral support are integrated as key influences that may shape or moderate this process. From these relationships, the hypotheses were derived. By linking these theoretical perspectives with the empirical data, the framework enabled a systematic interpretation of students' moral reasoning and the role of moral support from parents and teachers. It also informed the development and testing of the study's hypotheses, particularly regarding how ethical issues lead to dilemmas, how students resolve them, and how various factors influence the likelihood of achieving ethical breakthroughs. In this way, the conceptual framework ensured coherence between the theoretical foundations and the study's empirical analysis.

As shown in Figure 2.5, the variables pertinent to the study include ethical issues, ethical dilemmas, ethical reasoning, ethical decision-making, and moral support from teachers and parents. Ethical issues that are found in societies today touch on the protection of users' rights, user privacy guarantees, credibility of information, roles and responsibilities of users, cybercrime, intellectual property rights, identity theft, digital divides, access to information, and more and have been well documented by researchers, including Maisiri & Hikwa (2013), Matingwina (2015), Ming et al. (2015), Mutula (2013) and Oladokun (2013). Ethical issues give rise to dilemmas and can be resolved through systematic moral reasoning or ethical decision-making by those involved.

Values form the backbone on which people make moral decisions, including truth, integrity, respect, freedom, access, tolerance, liberty, privacy, justice, beneficence, and protection (Hauptman, 2008). Linked to these values are the beliefs that people hold and the society and environment in which they exist. Whilst they may differ from person to person, there are specific values that cut across societies and are generally widely accepted. People must appeal to specific laws or belief systems when resolving moral perplexities. The beliefs could be from moral theories, religion or society. Normative ethical theories, including Deontological Theory, Consequentialist Theory, and Virtue Theory, are widely accepted and used in ethical decision-making across fields. The Deontological theory (Kant, 1704) is duty-based; the Consequentialist theory (Mill, 1806) promotes the greatest happiness; and the virtue theory (Vallor, 2010) emphasises the honourable character that parents, teachers and society instil.

When people make decisions, they usually have people or organisations that they believe are trustworthy and to which they are loyal. In this regard, loyalties are determined in this study. The role of moral support cannot be underestimated either. Research confirms that the home environment is critical for shaping young people's behaviour and moral judgment (Harrison-Evans & Krasodonski-Jones, 2017). Similarly, other settings, such as workplaces or schools, also influence how individuals handle ethical dilemmas.

2.6 Chapter summary

Social media has given rise to several ethical issues, including cyberbullying, the spread of illicit materials, hacking, copyright breaches, and others. Resolving some of these issues can be straightforward in some cases. However, in other instances, it has given rise to ethical dilemmas in which users must engage in arduous deliberation, especially when more than one acceptable course of action is available. To resolve ethical dilemmas, people typically weigh values and principles from various belief systems, as well as the knowledge they acquire over time from their families, religion, or society at large. Depending on how an ethical dilemma is resolved, it can lead to an ethical breakthrough or persist as an issue. This chapter has examined the principal theories and models used in Information technology in general, as well as those that underpin the current study: the Potter Box Model (1965) and the WSIS Framework (2005), which expand on the list of generally accepted values as well as the classical ethical theories. Based on these and guided by the objectives of this study, the researcher developed a framework (illustrated in section 2.4) in which exposure to ethical issues serves as an independent variable, ethical decision-making as the dependent variable, ethical dilemmas and values as mediators, moral support as a mediator, and demographics as controls.

The next chapter presents the literature review that informs the current study.

CHAPTER THREE

LITERATURE REVIEW

3.1. Introduction

This chapter presents a comprehensive review of literature and theoretical perspectives related to ethical dilemmas experienced by adolescents in their use of social media, particularly within educational contexts. The review draws on global, regional, and local sources, including research from Botswana and other sub-Saharan African countries, to provide a contextualised understanding of the complex moral, legal, and social issues that arise in the digital environment. The chapter is guided by an integrated conceptual framework that combines the Potter Box Model of Ethical Reasoning, classical normative ethical theories (Deontology, Consequentialism, and Virtue Ethics), and the World Summit on the Information Society (WSIS) framework. This multi-layered framework enables a structured analysis of ethical dilemmas across four core dimensions: how situations are defined, the values at play, the moral principles guiding decisions, and the loyalties involved. These dimensions are not examined in isolation but in connection with the broader cultural, legal, institutional, and interpersonal influences that shape ethical behaviour in digital spaces.

In addition to exploring general ethical issues such as privacy, cyberbullying, intellectual property violations, and online harassment, the chapter also addresses emerging concerns like excessive use of social media (prolonged, compulsive time-on-platform use), identity theft, misinformation, and the role of platform governance and legal frameworks. It further examines how societal norms, family values, school policies, and national legislation contribute to or complicate ethical decision-making. The influence of parents, teachers, peer groups, and cultural values, such as *Botho*, is critically discussed, as is the gender dimension in moral reasoning.

This chapter reviews the literature to clarify what constitutes an ethical dilemma in adolescents' social media use, establish the theoretical lenses guiding the study, and connect those lenses to the study's research questions. It proceeds in four stages: first, it conceptualises ethical dilemmas in this context; second, it anchors the review in the Potter Box Model alongside complementary theories; third, it maps key issue clusters (e.g., privacy, accuracy, intellectual property, access, cyberbullying) onto the Potter Box elements of facts, values, principles, and loyalties; and fourth,

it identifies gaps in the literature to motivate the present study's contribution. Throughout, signposting is used to demonstrate how each subsection contributes to advancing the argument toward the research questions and the Botswana school context.

3.2 Conceptualising ethical dilemmas in social media use

A literature review helps to frame the research topic, identify gaps in existing research, avoid repeating studies that have been done before, and identify other areas for further research (McMillan & Schumacher, 2006). It forms the crux of the study. Apart from the conventional skills of gathering information from sources similar to those found in libraries, there is also a need for broad-mindedness and resilience to keep up with the challenges at the PhD level of study (Hart, 1998). The literature for this research was obtained from social media platforms, books, government documents, research papers, theses and included both print and non-print sources. This study aims to uncover the ethical dilemmas associated with social media use among senior secondary school students in Gaborone, Botswana. The literature explored here helps to answer the following research questions of the study:

1. What ethical issues are encountered by students in senior secondary schools in Botswana in the use of social media?
2. What ethical dilemmas do students encounter when using social media?
3. How do students make decisions to resolve ethical dilemmas they encounter on social media?
4. How do parents and teachers assist students to resolve ethical dilemmas on social media?

Having clarified what constitutes an ethical dilemma in adolescent social media use, the review now turns to the theoretical lenses that explain how such dilemmas are perceived and reasoned about. Accordingly, Section 3.3 examines the Potter Box Model and complementary theories that structure this study's analysis.

An ethical dilemma arises when individuals are faced with a situation that requires them to choose between two or more conflicting moral principles (Kidder, 2009). In the context of social media, students often encounter such dilemmas when their desire for expression and connection conflicts with the need to respect others' privacy, avoid harm, or uphold school and societal

norms (Livingstone & Third, 2017). Ethical dilemmas in digital spaces are complicated by the anonymity, speed, and reach of online communication (Floridi, 2013).

Recent scholarship suggests that adolescents' digital identities are increasingly "datafied," blurring the boundaries between offline selfhood and online representation, and intensifying the ethical burden of constant visibility (Pangrazio & Selwyn, 2021). Post-pandemic reliance on social media for peer validation and social belonging has further deepened the psychological and moral dimensions of online engagement, shaping how young people negotiate approval, reputation, and self-worth (Valkenburg, 2022).

In sub-Saharan Africa, studies such as those by Chigona et al. (2014) and Lesitaokana (2016) have demonstrated that students are increasingly engaging in social media activities that raise ethical concerns, including cyberbullying, sexting, plagiarism, and the dissemination of misinformation. In Botswana, research by Basupi and Mhoziya (2017) and Tsholetso, Maunganidze and Faimau (2017) shows that while social media offers significant educational and social benefits, it also exposes students to ethical risks, especially due to the lack of regulation and limited digital literacy.

More recent African-based research reinforces these concerns, demonstrating how algorithm-driven platforms and encrypted messaging applications influence adolescents' moral decision-making and peer dynamics in sub-Saharan contexts (Kunda & Chigona, 2022; Mshoka & Mapunda, 2023). These studies indicate that rapid platform migration toward short-form and mobile-first applications has amplified reputational harm, misinformation circulation, and peer pressure within school environments.

Additionally, the emergence of generative artificial intelligence tools introduces new ethical dilemmas related to authorship, intellectual autonomy, and academic integrity among learners (Cotton et al., 2023; Dwivedi et al., 2024). These developments expand the scope of digital ethical reasoning beyond traditional concerns of privacy and cyberbullying, requiring more structured models of ethical reflection in educational settings.

3.3 Empirical definition: Understanding ethical dilemmas in context

An important distinction must be made between ethical issues and ethical dilemmas. Ethical issues refer to broad problem areas that emerge in social media environments—such as

cyberbullying, privacy violations, plagiarism, and misinformation (Basupi & Mhoziya, 2017; Tsholetso et al., 2017). Ethical dilemmas, by contrast, arise when a learner must make a difficult choice between competing values or actions in response to those issues (e.g., whether to repost a harmful video for popularity or to verify and refrain; whether to retaliate against bullying or to report it) (Lesitaokana, 2016). Thus, issues describe structural risks, whereas dilemmas are the individual, situational conflicts that demand ethical decision-making.

Literature from Botswana and broader African contexts highlights issues such as cyberbullying (Tsholetso et al., 2017), exposure to pornography, plagiarism, and the sharing of false information (Basupi & Mhoziya, 2017). These issues reflect the daily reality of adolescent life online, where peer influence, entertainment, and academic activities are intertwined with digital platforms, often escalating into dilemmas when students must decide how to respond. Students in Botswana usually begin using social media at a young age and without adult guidance (Lesitaokana, 2016), which increases their exposure to ethical issues before they have developed the maturity or tools to resolve them, thereby producing frequent dilemmas such as whether to repost misinformation, retaliate against bullying, or remain silent.

While existing studies clearly outline the nature and prevalence of ethical issues such as cyberbullying, plagiarism, and online privacy violations, few have systematically examined how adolescents themselves in Botswana define and interpret these situations as dilemmas that demand decision-making.

This study contributes to the literature by applying the Potter Box to adolescents' social-media dilemmas in Botswana—a framework that is foundational in Western media-ethics pedagogy (Christians et al., 2020; Lambeth, 1992) yet seldom applied in Sub-Saharan African youth-focused research, where studies more often emphasise mental health and risk exposure (Mugweni et al., 2023; Osei-Twumasi & Agyekum, 2022) or structural issues such as the digital divide (Mutula & van Brakel, 2006; Olatokun & Opesade, 2008). While the Potter Box has been extensively employed in Western media ethics research (Christians et al., 2016; Lambeth, 1992), studies applying it in African contexts remain scarce. Existing sub-Saharan research on digital ethics has tended to focus on issues such as access and the digital divide (Mutula & van Brakel, 2006), cybercrime and regulation (Olatokun & Opesade, 2008), or moral panics around youth social media use (Maringe, 2015), without systematically adopting ethical reasoning models like

the Potter Box. To date, little published work has explicitly integrated the Potter Box framework into studies of adolescents' ethical decision-making in Botswana or the broader Sub-Saharan region, thereby underscoring the novelty and contribution of this study.

The introduction and use of ICTs, including social media, have brought dramatic changes to society, often described as a revolution. These technologies have transformed how individuals form relationships, access information, express themselves, and engage in social, educational, and political life, blurring the boundaries between private and public spaces, as well as between virtual and real-world experiences. Recent scholarship suggests that this transformation has accelerated in the post-pandemic period, with adolescents increasingly inhabiting hybrid digital–physical environments where ethical decision-making is continuous rather than episodic (Pangrazio & Selwyn, 2021; Valkenburg, 2022).

Three distinct qualities characterise this revolution: malleability, transformation, and invisibility. Malleability refers to the computer's flexibility and ability to be manipulated. Transformation refers to computer technology's ability to bring about fundamental and dramatic changes in people's lives, ultimately becoming a revolution. Finally, invisibility refers to the hidden aspect of the technology. This phenomenon presents two sides of a coin, presenting both opportunities and challenges for everyone, including the youth who have eagerly adopted the new technologies. These three qualities of computer technologies, namely malleability, transformation and invisibility have given rise to some ethical issues such as privacy violations, intellectual property infringement, security breaches, manipulation of digital content, and difficulties in ensuring accountability (Moor, as cited in Alakurt et al., 2012) in social media including risk-taking behavior especially among the youth, majority of whom are in school. In contemporary digital ecosystems, these concerns are compounded by algorithmic curation, data surveillance, and AI-assisted content production, which further complicate accountability and ethical responsibility (Dwivedi et al., 2024).

It is notable that the characteristics of social media tools that can promote risk-taking behaviour, such as anonymity and distance, also present opportunities for youth development, like opening up space to display moral and civic virtues, enabling honest and compassionate interaction, deepening interpersonal relationships and enabling civic participation (Harrison-Evans & Krasodonski-Jones, 2017).

Social media is being used in health, business, government, politics, education, and for leisure. Although social media was not specifically developed for academic practice, and its content sometimes does not support curriculum and assessment, this does not prevent it from being used for the benefit of classroom contexts (Henderson et al., 2014). Although the academic use of social media is not well established and is surpassed by its use for socialisation and personal communication, it is claimed that its use in academic practice is usually informal, open, and self-regulated, serving as reinforcement to classroom teaching (Guy, 2012).

Nevertheless, research indicates that the use of social media in academic practice provides several academic benefits, including enhanced communication, increased engagement, access to resources, and peer collaboration (Greenhow & Lewin, 2016; Manca & Ranieri, 2016; Tess, 2013). More recent research confirms that when structured ethically, social media can support participatory learning and collaborative knowledge construction, although concerns regarding distraction, misinformation, and academic integrity remain salient (Cotton et al., 2023; Mugweni et al., 2023).

Students can connect with peers and educators beyond school hours, share learning materials, and work collaboratively on assignments in real time. Platforms like YouTube and TikTok offer engaging visual content that helps explain complex academic concepts, while Facebook groups and WhatsApp allow for quick and interactive classroom discussions. Additionally, social media promotes the development of digital literacy and critical thinking skills, as students learn to evaluate online sources, participate in respectful debates, and build a sense of responsibility in digital spaces. Schools must therefore strike a balance between regulation and innovation to harness these tools for educational benefit. Schools must therefore explore ways of addressing issues of discipline arising from the use of social media. What complicates the issues of discipline related to the use of social media in school contexts is that they extend beyond the classroom walls into the virtual world (Lennie, 2013). Consequently, any measures to address the ethical issues of social media use in schools should focus on measures that try to curb the unethical behaviour of young people online. This is because students' access to social media extends beyond the school boundaries, and they can still use it from their smartphones, computers at home, or elsewhere, including friends' houses and internet cafes. In Botswana, issues arising within the physical jurisdiction of schools are easier to address, as schools have effective measures in place and extensive experience in dealing with such matters.

Schools must design more robust mechanisms to address online bullying, which is more challenging than addressing traditional bullying, because of the difficulty of detecting cyberbullying (Demers & Sullivan, 2016). Moreover, it is difficult to comprehend and control abuse associated with copyright, plagiarism, and privacy in the online realm, and to address these issues effectively.

With constructs defined, the next step is to identify the salient values adolescents weigh in their online interactions (e.g., autonomy, safety, fairness, dignity), which form the second quadrant of the Potter Box.

3.4 Identifying values: Influences on adolescent online behaviour

In the Potter Box Model of Ethical Reasoning, the second dimension focuses on identifying the values that guide moral choices. Values are crucial because they reflect the motivations, beliefs, and priorities that influence how adolescents interact with social media. This section reviews the literature on the personal, social, cultural, and institutional values that influence online behaviour among adolescents, with particular attention to the Botswana context. It examines both global perspectives, such as the WSIS values of privacy, dignity, and access, and local cultural norms like *Botho*. In doing so, the section aligns with the second research question of the study, which seeks to understand the ethical dilemmas students face and the value conflicts underlying their decision-making.

3.4.1 Influences on adolescent online behaviour

Values refer to the underlying motivations or beliefs that shape how adolescents behave on social media. Key values include peer approval, popularity, self-expression, empathy, and respect for others. However, conflicting values often arise, for instance, valuing humour and entertainment might clash with values like privacy or kindness (Livingstone & Third, 2017). The WSIS values of access, tolerance, privacy, responsibility, and cultural diversity provide a globally relevant value base to interpret adolescents' choices. Studies show that students in Botswana and other African countries place high importance on belonging and peer relationships, which sometimes leads to decisions that compromise ethical standards (Chigona et al., 2014). The value of "*Botho*", encompassing respect, compassion, and responsibility, is central to moral education in Botswana (Setlhabi, 2014). Yet, it is often under strain in online contexts where these values are not reinforced.

Moral values, on the other hand, are deeply seated beliefs that influence people's actions and the rules by which decisions are made within societies, and they embody philosophical considerations that assist people in personally judging how reasonable, truthful, and appropriate their actions are in their interactions with others (Maikaba & Msughter, 2019). Values refer to the attitudes, beliefs, behaviours, and actions that are cherished and accepted as the standards of behaviour that each society expects its members to abide by (Awoniyi, 2015). Contemporary digital ethics scholarship suggests that in online environments, values are not only individually held but are also shaped through networked interactions, platform norms, and algorithmic structures that subtly influence moral perception and behaviour (Pangrazio & Selwyn, 2021; Dwivedi et al., 2024).

The values intrinsic to information are not significantly different from those found in everyday life, including truth, integrity, respect, freedom, access, tolerance, liberty, privacy, justice, beneficence, and protection (Hauptman, 2008). In the Information Society, the values of privacy, accuracy, property, and accessibility are prominent and influence other values as well. However, in contemporary social media ecosystems, these classical informational values increasingly intersect with emerging concerns such as data surveillance, digital footprints, reputational permanence, and AI-mediated content production, thereby expanding the ethical terrain in which adolescents must reason (Cotton et al., 2023; Valkenburg, 2022).

The issue of values features prominently in discussions of morality, as seen in moral theories such as the Potter Box Model (1965) and the WSIS framework (2005). These issues have gained importance, as being late may contradict others or appear to be competing or incompatible among different people (Isokon et al., 2022). Recent discussions of digital citizenship further emphasise that ethical reasoning in digital contexts requires reflexivity, critical awareness of platform influence, and sensitivity to cultural context, particularly in African educational settings (Kunda & Chigona, 2022; Mugweni et al., 2023).

Every society has values by which it lives, and in the context of Africa, these values have traditionally emphasised community, respect, and interdependence (Gyekye, 2010; Wiredu, 1996). African societies have long upheld a strong value system, which, albeit diluted by the booming entertainment industries and other commercial entities that tend to promote materialism, violence, and immorality (Chukwuere, 2017; Mutsvairo, 2016). In the African context, the value

of respect holds great significance, as young people are not supposed to address seniors in terms of age and position, whether at home or at work, by their first names. This value is embedded in moral education and everyday social interaction (Mokgoro, 1997; Setlhabi, 2014). These values are constantly under attack as new social media platforms give users a false sense of detachment, leading them to disregard some of these values by creating a sense of anonymity and detachment that allows adolescents to ignore the values of respect and restraint (Kirova, 2023; Palfrey & Gasser, 2016). Sometimes these tensions generate ethical or moral dilemmas for young people navigating both worlds.

Many parents are anxious about the impact of social media on young people's values and moral development, and most feel that these media hinder the proper development of morals and good values (Kirova, 2023). New media places little effort in educating young people about the critical values they need to contribute meaningfully to the societies in which they live, instead exerting more emphasis on commercials that generate money. Commercials and advertisements can have a negative influence on the ethical and moral standing of young people, as they often promote materialism, unrealistic lifestyles, and sometimes even harmful behaviours. The impact is magnified because young people spend considerable time on social media platforms, where such messages are repetitive and persuasive.

There is no consensus on whether social media is beneficial or detrimental to society, especially for young people. Others argue that the use of social media has a negative impact on the development of young people and their conduct, and impacts social decision-making negatively and erodes empathy by desensitising them (Basupi & Mhozya, 2017; Cyberbullying Research Centre, 2018; Kirova, 2023; Palfrey & Gasser, 2016; Sadleir & Harrison, 2017). Aljehani (2019) argues that media negatively affect values through open cultures and unrecognised value systems across users, and that big media channels succeed in imposing their culture and values on all societies. Maikaba and Msughter (2019) and Isokon et al. (2022) have highlighted how media messages from developed nations reach developing nations, with their cultural values dominating local cultures through the consumption of mass media messages, culminating in cultural imperialism. However, sometimes the media strengthens value systems due to its extensive adoption and persuasive, repetitive nature. Consequently, as many adopt it, they also adopt new value systems, and old ones are reinforced.

The value systems of different people are increasingly the centre of any deliberations that take place on social media platforms (Capurro, 2007; Ess, 2009; Mutula, 2013). The deliberations on which value takes precedence in a given situation give rise to ethical dilemmas, thereby leading to engagement in the ethical reasoning process. Within the globalised world, people are exposed to the value systems of others and are even tempted to adopt them, along with their own, sometimes neglecting their own. Moreover, shared core values that are generally accepted as good by almost all society and social media users are expected to conform to these (Ess, 2009; Floridi, 2013). Social media companies have also reinforced these values through their terms of use pages, which emphasise respect, privacy, safety, and dignity (Facebook, 2021; Twitter, 2022). These are reinforced by society and global organisations like the United Nations. For example, Article 19 of the Universal Declaration of Human Rights, which emphasises freedom of expression, and the UNESCO Internet Universality Indicators, which highlight the values of human rights, openness, accessibility, and multi-stakeholder participation (United Nations, 1948; UNESCO, 2019).

It is not the aim of this study to delve deeply into what and how much different societies have borrowed from each other, or into the conflict between good and bad values. However, this study aims to observe how much the generally accepted good values have influenced decision-making and what factors have influenced young people to act in a certain way during activities on social media platforms. There are specific values most Africans can relate to, such as the hierarchy of respect as defined by age and position, and the expression of respect is consistent across our society (Gyekye, 2010; Mokgoro, 1997; Wiredu, 1996).

Although many studies acknowledge peer pressure and the role of cultural values like *Botho* in shaping online behaviour (Chigona, Wessels, & Lunga, 2014; Setlhabi, 2014), there is limited empirical research that maps these values onto specific ethical decisions made by adolescents on social media (Maringe, 2015; Tshotetsi, 2021). This study addresses that gap by linking students' stated values to their ethical reasoning using real-world scenarios.

Values alone do not determine action; therefore, this section reviews ethical principles and normative frameworks (e.g., deontological, consequentialist, virtue-ethical reasoning) through which adolescents and caregivers adjudicate competing values.

3.5 Appeal to ethical principles: Moral reasoning frameworks guiding action

This section examines the ethical theories or principles students apply (implicitly or explicitly) when making decisions online. Research suggests that adolescents rarely articulate formal ethical principles but often engage in reasoning that reflects deontology (rule-following), consequentialism (weighing outcomes), or virtue ethics (character-based judgment) (Killen & Smetana, 2010; Moshman, 2011; Nucci & Narvaez, 2008; Valkenburg & Piotrowski, 2017; Stahl, 2021; Taddeo & Floridi, 2022).

In Botswana, respect for school rules or parental expectations may reflect deontological reasoning. Conversely, the popularity gained from sharing entertaining content, even if ethically dubious, reflects consequentialist logic (Tsholetso et al., 2017; Stahl, 2021). The philosophy of *Botho* aligns closely with virtue ethics, promoting moral behaviour based on empathy, humility, and communal good. The WSIS framework, while not a moral theory per se, reinforces these principles by advocating ethical standards for digital conduct, thereby providing practical anchors for ethical reasoning (WSIS, 2023; UNESCO, 2023).

Existing research highlights the relevance of ethical theories; however, little is known about how adolescents in Botswana internalise or reflect these principles in real-life digital contexts (Maringe, 2015; Setlhabi, 2014; Tshotetsi, 2021). By applying the Potter Box alongside classical theories, this study offers a unique interpretation of students' choices and reasoning pathways when confronted with moral dilemmas online (Christians et al., 2020; Nucci & Narvaez, 2008).

Because ethical choices are relational, we next examine loyalties and stakeholder obligations to peers, family, teachers, schools, and platform communities, and how these obligations shape justification and accountability.

3.6 Choosing loyalties: Accountability to different stakeholders

Loyalties refer to the individuals or groups to which adolescents feel accountable when making ethical decisions. These often include friends, parents, teachers, religious leaders, and the broader community. Research reveals that peer loyalty is often prioritised over adult authority in online interactions, especially when students fear judgement or punishment (Livingstone & Smith, 2014).

In Botswana, the limited involvement of parents and teachers in guiding social media use (Basupi & Mhoziya, 2017) means that students tend to rely more on peers. This contributes to an echo chamber effect where ethical decisions are shaped within peer circles rather than by adult moral guidance. However, research also highlights the importance of moral support from caregivers and teachers in building ethical resilience (Harrison-Evans & Krasodonski-Jones, 2017). When students feel emotionally supported and morally guided, they are more likely to uphold communal values such as *Botho* and conform to global expectations, as outlined in the WSIS framework.

While the literature notes limited parental and teacher involvement in digital ethics education, it often lacks an in-depth exploration of how these authorities influence ethical decision-making in practice. This study contributes by analysing student reflections on support and loyalty, offering a grounded understanding of moral influence from adults in Botswana's context.

3.7 Ethical issues surrounding the use of social media

Even though ICTs provide many benefits, they also breed grounds for several societal and ethical problems, which vary in accordance with the contexts and purposes for which they are used (Kuzu, 2009), and social media use is no exception. Mason (1986) identified four ethical issues that characterise the information society: Privacy, Access, Property, and Accuracy. In addition, concerns such as cyberbullying, plagiarism, hate speech, stalking, and fake news continue to be of concern and threaten the stability and success of the information society. Most research on the problematic issues surrounding social media use tends to focus on the psychopathological perspective, and very little research has been carried out on the problematic use of ICTs in the school environment (Rodriguez-Gomez, Castro, & Meneses, 2018). There is scholarly evidence that suggests problematic internet use in many ways manifests in drug and alcohol abuse disorders, obsessive-compulsive disorders and impulse-control disorders (Liu et al., 2011, as cited in Masrom et al., 2013), high-risk sexual behaviour and mental as well as psychological problems (Sargolzaei & Nikbakht, 2017). In line with this, numerous studies have been conducted on specific ethical issues affecting students, such as internet addiction (Li et al., 2015), plagiarism (Granitz & Loewy, 2007), and privacy (Acquisti & Gross, 2006, as cited in Allmer, 2015), among others. Problematic use of social media, including lack of proper boundaries concerning communication between students and teachers, pornography, cyber-bullying,

inappropriate content and risk of being lured by pedophiles has been reported though, this is concentrated in the Western countries and not much has been done in Africa especially in the school environment (Bányai et al., 2017; Henderson et al., 2014).

Many young people are likely to be online due to both educational and social imperatives (Shade & Singh, 2016). It is evident that a significant number of people, including students, are using ICTs, especially social media platforms; however, they are not necessarily using them ethically, as evidenced by the emergence of several issues, such as piracy, plagiarism, and cheating, which are the most common (Anderson et al., 2022; Cilliers, 2017). For example, a teen in a Pew research article said,

“I think it would be a little bit [messed up if social media disappeared]. I spend 99% of my time indoors in front of my computer; if I’m not playing games, I’m watching pirated videos. If I’m not watching videos, maybe I’m reading an article. I’m always online. And I hardly step out of my room. I have had issues with my dad. He said my room is too creepy. I should come outside and play with people but I’m not really good at making friends. So, it’s a bit hard on me.” (Anderson et al., 2022)

Moreover, there have been court cases and arrests involving social media use. There is clearly public anxiety surrounding the impact of ICTs, particularly social media, on the developmental experiences of young people (Harrison-Evans & Krasodonski-Jones, 2017). In some countries, governments have responded to concerns about online harms by restricting access to social media and gaming platforms for young people. Several countries have taken steps to limit young people’s access to certain forms of social media and online gaming. For example, China, South Korea, and France have introduced bans on certain forms of media and online gaming used by young people. In November 2024, the Australian government announced a ban on social media use by children under the age of 16. The Prime Minister explained that the policy aims to reduce online harms such as cyberbullying—which affects approximately 11% of young Australians—and unwanted sexual solicitation, reported by a similar proportion. These online risks are associated with increased vulnerability to depression, self-harm, and suicidal behaviour. In addition, children get exposure to harmful online content and communities, such as those promoting eating disorders and unattainable beauty ideals (Fardouly, 2025).

Increasingly, concerns are being raised that new ICTs, including social media platforms, are doing more good than harm. They argue that Social Media hinders individuals and institutions from reaping the full benefits of ICTs because of the likelihood of extensive control and

monitoring by parents, schools, and other organisations, including social media companies and governments (Boyd, 2014; de Zwart et al., 2011). These concerns warrant attention from all stakeholders (Ahn, 2011; Palfrey & Gasser, 2016). Even if dangerous or negative experiences on social media account for only a small percentage of all online activity, each instance represents a significant concern for adults, parents, and educators. This calls for an investigation into what gives rise to unethical behaviour online and how that can be curbed. Equipped with the Potter Box elements, the review now surveys key ethical issue clusters in adolescent social media use (privacy, accuracy, intellectual property, access, cyberbullying, inappropriate content, addiction, and identity theft), demonstrating how each maps to facts, values, principles, and loyalties.

3.7.1 Privacy

Privacy is central to human dignity. The right to dignity is enshrined in Article 12 of the Declaration of Human Rights and Article 17 of the International Covenant on Civil and Political Rights, as well as other instruments on Human rights (Media Institute of Southern Africa, MISA, 2020). The right to privacy is a critical right that is both important in its own right. It underpins many other fundamental rights, including freedom of association, freedom of expression, access to information, and freedom of thought, conscience, and religion, as well as public participation, self-worth, impartiality, and non-segregation (Singh & Power, 2021). The right to privacy stems from the Universal Declaration of Human Rights (UDHR) and the International Covenant on Civil and Political Rights (ICCPR). Although the African Charter on Human and Peoples' Rights (African Charter) does not explicitly contain a right to privacy, the revised Declaration of Principles on Freedom of Expression and Access to Information in Africa (African Commission Declaration of Principles), adopted by the African Commission on Human and Peoples' Rights (African Commission) in 2019, recognises the importance of the right to privacy, both as a self-standing right and an enabler of the rights to freedom of expression and access to information (Singh & Power, 2021).

Article 16 of CRC (1989) provides that:

- (1) No child shall be subjected to arbitrary or unlawful interference with his or her privacy, family, home or correspondence, nor to unlawful attacks on his or her honour and reputation.
- (2) The child has the right to the protection of the law against such interference or attacks.

Article 10 of the African Children's Charter (1990) protects the right to privacy as follows:

No child shall be subject to arbitrary or unlawful interference with his privacy, family home or correspondence, or to the attacks upon his honour or reputation, provided that parents or legal guardians shall have the right to exercise reasonable supervision over the conduct of their children. The child has the right to the protection of the law against such interference or attacks.

Privacy has traditionally been perceived as valuable and has gained even more importance in the information age, as it guards an individual's personal identity, preserves individual autonomy, and makes social relationships possible (Kizza, 2016, p. 76). Jerry Dulak in Kizza (2016) notes that privacy comprises four rights: the right to be left alone in solitude, the right to have no public personal identity and maintain anonymity, the right not to be monitored, and the right to control one's personal information, including the methods of dissemination of that information.

Complete privacy in the social media environments remains elusive, as these platforms are inherently designed for information sharing (Barrett-Maitland & Lynch, 2019). Furthermore, the notion of privacy is difficult to accurately define because the actual rules of privacy are determined by variables such as culture, geographic location, political systems, and religious beliefs (Moore, 2016). However, even if elusive in its totality and the way different individuals and societies perceive it, privacy is still regarded as universal and considered a necessity in society that many aim to achieve and protect.

The privacy of the individual has been eroded in many ways by both the self and others. Social media users, such as young people, often share too much personal information, making them more vulnerable. This includes, among other details, their ages, contact numbers, addresses and more when they register on social media sites and when they interact with others. What they do not know is that information stored electronically is rarely, if ever, as secure as users may think and even when privacy measures are taken, may inadvertently enter the public domain and accessed in unintended ways (for example, when content is shared or reposted on public or unsecured pages or sites) (Demers & Sullivan, 2016, p. 522). People often give away much more personal information to those close to them and even strangers for a variety of self-interested, noble, or civic-minded reasons (Allen, as cited in Moore, 2016). To the youths, most of whom are students, it is more about asserting oneself and identity building, and in doing so, they divulge much information about themselves.

Oversharing information may cause others discomfort and lead to a loss of one's dignity, for instance, when private details are disclosed in ways that invite ridicule, stigma, or exploitation, thereby undermining the individual's sense of respect and self-worth (Nissenbaum, 2010; Sætra, 2021). Some people believe that there is nothing wrong with this approach, as it promotes transparency and accountability, which are crucial to the well-being of societies (Floridi, 2013; Kaptein, 2017). Although some people believe they have no moral obligation to protect their privacy, scholars argue that individuals do, in fact, have such an obligation. Safeguarding one's privacy is comparable to other ethical duties, such as the obligation not to lie, cheat, or steal (Moor, 2016; Tavani, 2016). Practices of excessive disclosure and self-disclosure on social media undermine this moral obligation. Such behaviour, which often blurs the line between openness and exhibitionism, is ethically problematic regardless of any practical benefits it may appear to bring (Moor, 2016). Duties to protect one's own privacy can be articulated in the admixtures of deontological, utilitarian, and other ethical frameworks.

In the present age, social media users seem to have no limits on what they disclose online, sharing personal information not only about themselves but also about others. (Nyangeni et al., 2015; Valkenburg et al., 2022; Taddeo & Floridi, 2022) In a study of nursing students' perception of the responsible use of social media in the Eastern Cape, grossly unethical use of the media was observed, as supposedly confidential patient information was exposed on social media. The study recommended that organisations should put in place guidelines for the responsible use of social media to prevent legal and ethical violations. Laidlaw (2017) notes that some acts of shaming, particularly in some cases of cyber-bullying, are strongly associated with the victim's real-world community and constitute a breach of someone's privacy. Mutula (2013, p. 1), quoting Kaplan and Heinlein (2010), points out that a violation of privacy or breach of confidentiality presented a risk of serious harm to [the users] arising from exposure of personal or sensitive information, the divulgence of embarrassing or illegal conduct or the release of data protected under the law (Floridi et al., 2018; Stahl, 2021). There are instances where some people get pictures of others in compromising situations by chance, such as pornographic pictures being used as revenge pornography or to bully others; meanwhile, the perpetrators are breaching others' privacy and dignity (Citron & Franks, 2014; Henry & Powell, 2018; Powell & Henry, 2020). The posting of private or humiliating information about other people clearly raises the dilemma of how best to

effectively protect young people's privacy while preserving their ability to freely interact online (de Zwart et al., 2011; Livingstone & Stoilova, 2021).

Inextricably linked to privacy is the phenomenon of anonymity. Users are expected to interact with others on the internet without divulging their identity, including their anonymity or use of a pseudonym. In the current digital transformation environment, there are serious debates about the freedoms of individuals on the Internet and how these freedoms can be protected (Kizza, 2016). For example, most misuses of the internet such as hate speech, plagiarism, fraud, and cyberbullying have happened because the perpetrators know that they can hardly be caught and are likely to get away with it due to data transmission protocols such as Network News Transfer Protocol (NNTP) and Simple Mail Transfer Protocol (SMTP) which remit messages with indiscriminate field information to servers.

In response to some illicit and undesirable activities that take place on social media, organisations are faced with dilemmas about choosing between respecting people's privacy and incurring losses as employees spend a lot of time on social media, or monitoring them using different methods and devices (Narayanan, 2018). Olatokun and Moremedi (2011), note that usually, employers react to this problem by employing electronic monitoring programs such as Investigator, Black Orifice, Mail Marshall, Websense, Survey Suite, Spector, and others to track employee keystrokes, comb through employee emails, review employees' computer files, see what websites employees have visited, determine how long an employee stays online, block employee visits to forbidden websites, and perform various other monitoring and surveillance functions. They argue that while there are benefits to monitoring electronic media, such as increased productivity and deterrence of inappropriate content, there is also a downside in terms of loss of privacy, which can impact staff morale. When this occurs, a loss of trust develops between the employer and the employee. Such actions also affect the dignity of those who are under this surveillance. Human dignity encompasses values such as respect, freedom, and free will, and is intrinsic and rooted in personhood itself, regardless of a person's social standing in the community (Dolamo, 2013).

Social media companies collect a vast amount of personal information, including email addresses, names, photos, and location data, for various purposes such as safety, targeted marketing, and sharing with third parties (Perrin & Anderson, 2019). For example, some social

media platforms, such as WhatsApp, share users' data with Facebook, yet these users have little understanding of what social media companies do with their data (Acquisti & Gross, 2006; Zuboff, 2019; Taddeo & Floridi, 2022; OECD, 2021). It is not uncommon to receive pop-ups from various companies marketing their products due to the information shared with other parties. While a user may have their pictures on Instagram, for instance, Instagram may still use them as it sees fit, and in most cases, these are used for marketing purposes.

The existence of social media policies and terms of use is supposed to enhance users' privacy. If users of these networks pay attention to their privacy settings and the type of information they share, and adhere to universal, fundamental, moral values such as mutual respect and kindness, many privacy and unethical issues can be avoided (Barrett-Maitland & Lynch, 2019). Unfortunately, social media policies and codes of conduct available on websites that are supposed to guide users and promote responsible use are perceived by users as cumbersome and bewildering to understand. Users end up entrusting their messages, names, pictures, videos and more without clearly understanding the repercussions. Researchers at Carnegie Mellon University in Pennsylvania concluded that it would take the average American 76 workdays to read all the privacy policies that they agreed to every year (Sadleir & Harrison, 2017). Social media policies also keep changing, and at times, users cannot keep up with checking for updates frequently.

The right to privacy is constantly being breached in school environments as well (Archambault, 2021). Social media has been associated with ills including cyberbullying, intrusion of privacy, pornography, stalking, intellectual property abuses and other undesirable and criminal activities (Anderson & Jiang, 2018), some of which have resulted in detrimental actions like suicide (Al-Shahrani et al., 2021). In the face of these risks, teachers and parents have responded by secretly monitoring youths' activities on social media (Lenhart, 2015). Ahn (2011) citing Lemke et al., (2009) notes that approximately 70% of school districts in America block access to SNS, and the main reason for this trend centers on fears about student safety. Shade and Singh (2016) also reported students' social media monitoring through Geo Listening, Varsity Monitor, Snaprends and Digital Fly in America, where public posts on social media platforms (including Facebook, Instagram, Twitter, and blogs) were monitored for any indication of depressive and suicidal thoughts, threats, hate speech, bullying and others. Varsity Monitor, for instance, is specifically designed to monitor college and high school athletes who have scholarships for athletics and are

potential candidates for sports scholarships or contracts, as a negative social media depiction could jeopardise these opportunities. These social media monitoring companies believe that students' social media activities should be monitored for safety reasons, as evidenced in their own words, cited by Shade and Singh (2016).

GeoListening: *Every day in our schools, many children will have social and emotional needs that go unnoticed and unmet. In their search for someone who understands and that can help, students have most often chosen to post their concerns, thoughts and fears to the public pages of social networks. Make yesterday the last day that you were not able to effectively identify and engage with these students to meet their needs.* (“Why Choose Geo Listening”²) (Shade & Singh, 2016, p. 2).

Varsity Monitor: *We look for things that could damage the school’s brand and anything related to their eligibility.* (Sam Carnahan, CEO of Varsity Monitor, as cited in Thamel, 2012).

However, whilst some of their concerns may sound reasonable, it also raises ethical questions as other rights are violated because of these actions. Surveillance of young people can erode their trust in parents, authority figures, schools, and the state, stifle the development of autonomy, resilience, and agency, and further impact moral development (Shade & Singh, 2016). Harrison-Evans and Krasodonsky-Jones (2017) note that if parents and teachers are always covertly monitoring their children's digital experiences, it can obstruct their online activities. Suppose students are not allowed to use new technologies and contribute to online communities, such as social networking sites. In that case, they will not develop the necessary skills and technical literacy that will be vital in the future (Jenkins, 2006). Young people resent being monitored online, and that, in turn, can lead to reduced use of social media. They feel their rights to freedom of expression and association are being violated. It is interesting to note that young people, including students, are less fearful of social media platforms and government surveillance than they are of parents and schools monitoring their online activities (Boyd, 2014). Sometimes, young people circumvent this by creating multiple user accounts and interacting with their friends in spaces their parents are not aware of.

3.7.2 Accuracy of information on social media platforms

The accuracy of information available on social media is a concern in the age of social media, where everyone is a publisher (Vosoughi, Roy, & Aral, 2018). Capurro (2011) argues that social life involves a careful balance of revealing and concealing aspects of us, depending on the levels of trust and security in different contexts. Concealing information results in inaccuracies, some of

which are minor and harmless, while others are major and have detrimental consequences. Instances of misinformation may be the result of pure malice, or sometimes the cause may be well-intentioned (Wardle & Derakhshan, 2017; Taddeo & Floridi, 2022). This leaves social media users with a range of ethical dilemmas to ponder. CIPESA (2017) notes that during the election protests in the Democratic Republic of the Congo in January 2015, some anonymous bloggers, in an attempt to garner international attention to the situation in the country, created misleading content using images and videos of civil strife from Burkina Faso and the Ivory Coast. The cause may have been justified from a consequentialist perspective; however, from a deontological and rights-based view, as propagated by the Universal Declaration of Human Rights, WSIS, and governments, it could have been wrong. CIPESA (2017) also notes an incident in March 2017 in Uganda in which a report about a fatal accident of a school bus, intended to cause widespread panic, went viral on WhatsApp, causing agony and panic amongst parents and relatives (OECD, 2021; UNESCO, 2023).

The prevalence of fake news has prompted governments and social media platforms to regulate social media and implement laws and restrictions in an effort to combat this practice (CIPESA, 2017). For example, Section 16 of Tanzania's Cybercrimes Act of 2015 makes it a crime to publish information, data, or facts presented in a picture, text, symbol, or any other form in a computer system where such information, data, or fact is false, deceptive, misleading, or inaccurate (CIPESA, 2017). Whilst government efforts to control the spread of fake news may be a valid concern for all stakeholders, the enforcement of such provisions can be used to limit freedom of expression.

However, considering the volume of traffic on social media sites, it may be a mammoth task to deal with every matter of untruths perpetrated on these sites. From a utilitarian point of view, one can be allowed to lie or misinform if it is going to produce the greatest happiness for the greatest number (Mill, 1863/2007). On the other hand, deontologists argue that lying is wrong and cannot be permitted under any circumstances. The Pew Centre carried out a study on internet misinformation, and out of 1116 respondents, 51% noted that the information environment would not change for the better because it is part of human nature to continuously seek success and power and the fact that technological affordances will hinder efforts to combat misinformation (Anderson & Rainie, 2017).

This misinformation, including privacy breaches, can impact people's rights to dignity, reputation, and the right to know, as well as undermine trust. The question of trust has gained prominence in the information society environment because, unlike in the past, people and institutions are not trusted as much. However, with the rise of the internet and social media, new kinds of relationships and communities have emerged. In these digital spaces, trust is negotiated with other users whom they have not met. This occurs under unfamiliar circumstances, where an overwhelming amount of information from uncertain sources is utilised by actors employing ever-evolving strategies to capture users' attention (Rainie & Anderson, 2017). Trust is crucial to people's social, economic, and political development, and when trust is absent, various societal woes, including violence, occur (Rainie & Anderson, 2017).

3.7.3 Intellectual property

Intellectual property (IP) generally refers to tangible things such as ideas, inventions, technologies, artworks, music, and literature that one owns and has legal ownership through patents, trademarks and copyright, which protect the moral and economic rights of the creators, in addition to the creativity and dissemination of their work (Kizza, 2016). Internationally, copyright is a right, enforceable by law, accorded to an inventor or creator of an expression including creative works (literary, dramatic, musical, pictorial, graphic, artistic) together with audiovisual and architectural works and sound recordings and the World Intellectual Property Organisation (WIPO) created in 1967, United Nations Educational Scientific and Cultural Organisation (UNESCO), World Trade Organisation (WTO) as well as regional organisations enforce compliance with these laws. As technology rapidly develops, gaps in legislation emerge (Alakurt et al., 2012). There is a lack of the necessary legal framework to protect intellectual property, and oftentimes, the enforcement of intellectual property rights is seen to counter the rights to access, the rights to know, and the spirit of sharing that is encouraged by societies, in this case, the sharing of information.

The internet and social media foster a great deal of creativity and the production of new information, which occurs at a very high rate. Issues with intellectual property rights abuse have, however, increased with the use of social media. Most laws protecting intellectual property refer to physical things, such as books, and it is not easy to apply these laws to the online environment, where everyone is a publisher and the rate at which content is being published is very high. It is challenging to know who owns what on the internet (Madison, 2015; Lessig, 2019; Taddeo &

Floridi, 2022; UNESCO, 2023). Although it is clearly stated on social media sites, for example, Facebook, that “We provide you with tools to help you protect your intellectual property rights”, the practical reality is that enforcing those rights remains a significant challenge (Alpert, 2018; Facebook, 2024, p. 5). This is due to the massive volumes of content and the speed at which it is shared, social media platforms, however, have also provided fertile ground for the infringement of copyright laws.

There is an increasing amount of information online, and users of social networks often use other people’s content and photographs without consideration (Jones & King, 2017; Taddeo & Floridi, 2022). Many times, users, especially young users, assume that because their use of content is not for profit, but for the purpose of social connections, they do not need to obtain permission from copyright owners to use music or images on their social network sites (de Zwart et al., 2011; Livingstone & Stoilova, 2021). Article 27 of the Universal Declaration of Human Rights articulates that “Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author” (Universal Declaration of Human Rights, 1948). With the advent of new media, “we are in unexplored legal terrain where every user can be a generator and publisher of her own content (Kirley, 2015, p. 301). The use of a popular cartoon character photo as one’s Facebook profile image sends important messages about one’s identity, and much of the content used in the creation of identities on social network sites is protected by intellectual property rights (IPRs), especially copyright (de Zwart et al., 2011; UNESCO, 2023).

Considering that to publish something, one would also have used bits and pieces of other people’s ideas, it is very difficult to understand who the original owners of the content we see on social media are (Ginsburg, 2012).

3.7.4 Access and accessibility

Access and accessibility determine the extent to which individuals can participate meaningfully in the information society, making both concepts critical to digital ethics and inclusion, as advocated by the WSIS Framework (WSIS, 2003; UNESCO, 2023; OECD, 2021). Access refers to the availability of digital tools and internet connectivity, while accessibility focuses on how usable and inclusive those technologies are for all individuals, including people with disabilities and those from marginalised communities (Alakurt et al., 2012; Angst, 2009; Livingstone &

Stoilova, 2021). Issues of access and accessibility of information have also triggered concerns of an ethical nature. Alarkut et al. (2012), in a study utilising four scenarios based on the Mason PAPA model, noted that, out of the four issues considered, accessibility proved to be the most controversial issue among ICT students' teachers at Ankara University in Turkey. One would expect a rich body of literature that informs our understanding of the phenomenon, but “the ethics of information accessibility and use are an understudied topic” (Angst, 2009, p. 51; Taddeo & Floridi, 2022). The Universal Declaration of Human Rights asserts that everyone has the right to access information. This explains why many countries have made efforts to establish the necessary infrastructure for an information society, aiming to close the digital divide. While tremendous strides have been made in closing the digital divide in terms of access to physical technologies, it still exists in some areas. For example, smartphones have been instrumental in closing the digital divide, but there are still people who cannot afford them, despite a reduction in price (GSMA, 2022). Hence, Henderson et al. (2014, p. 5), citing Auld and Henderson (2014), ask in relation to students, “Do we have the right to colonise or marginalise students out of school social networking practices in the classroom?”

Moreover, the use of filters or monitoring equipment is common in homes and schools, whereby some content deemed unacceptable is blocked using specific technologies. Content that is filtered includes that on suicide, pornography, crimes, drugs, violence, hate speech and others. Some filters are placed on computers, and others on servers. Sometimes, filters take the form of a child-friendly web browser or software, such as NetNanny or WebWatcher, which work in conjunction with standard web browsers like Firefox or Google Chrome (Palfrey & Gasser, 2016; Livingstone & Third, 2017; UNESCO, 2023).

3.7.5 Cyberbullying

The cyberbullying Research Centre defines it as “willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices” or “repeatedly makes fun of another person online or repeatedly picks on another person through email or text message or when someone posts something online about another person that they don’t like” (Cyberbullying Research Centre, 2018; Hinduja & Patchin, 2020). The corporate documents of all the companies in the sample in a study by Milosevic (2016) which investigated the policies of different social media platforms including Facebook, Instagram (Facebook-owned), Twitter, Ask.fm, YouTube (Google-owned), Yik Yak, Secret app, Google+, Tumblr (Yahoo!-owned),

Snapchat, Whisper, and messenger apps Voxel, WhatsApp (Facebook-owned), and KIK specify that harassment, abuse, or cyberbullying are not allowed on their platforms. Facebook Terms and Conditions of use state that no one is to bully, intimidate, or harass others (Facebook, 2015). Many schools have policies on (cyber) bullying, or at least (cyber) bullying is incorporated in the policies. Preliminary visits by the researcher to the study sites -Naledi Senior Secondary School, St Joseph's College, Ledumang Senior Secondary School and Gaborone Senior School revealed that all schools have made it clear in their school rules stated in the prospectuses that (cyber) bullying is not acceptable. For example, the Gaborone Senior School prospectus Section 5.3.14 states that "No student should bully others" (Gaborone Senior School, 2018). Whilst bullying has been addressed in the prospectuses, none have specifically addressed cyberbullying (Kowalski et al., 2019; Hinduja & Patchin, 2020)..

Whilst many countries may not have laws that directly address cyberbullying, there are regulations that enable them to deal with such issues, such as South Africa's Protection from Harassment Act of 2013 (Sadleir & Harrison, 2017). The Electronic Records Evidence Act (2014) in Botswana also addresses issues such as cyberbullying, as it enables the use of electronic evidence in court against perpetrators of cyberbullying. However, the issue is that it is a daunting task, considering the large number of people who use social media today. Therefore, cyberbullying still takes place on Facebook and other social media platforms, and this causes far-reaching adverse consequences on individuals, institutions, and societies. For example, a victim's emotional distress can lead to a decline in academic performance, which in turn may prompt a school to implement new anti-bullying policies and ultimately contribute to the broader societal challenge of protecting mental health in the digital age. Henderson et al. (2014) noted that the issue of how to deal with illicit behaviour online was a source of dilemma for teachers.

Those who are bullied in both physical and online environments tend to exhibit low self-esteem, sometimes feel suicidal, experience family problems, academic difficulties, are involved in school violence, and exhibit various offending behaviours. They sometimes even drop out of school because of fear. Whilst bullying has always existed for a long time amongst youths, the problem seems to have been exacerbated by the advent of social media technologies (Sadleir & Harrison, 2017). What makes it worse is the fact that the bullies can even execute their bullying without necessarily revealing their identities. This makes it difficult for law enforcement agencies, educational institutions, or social media platforms themselves to monitor and combat

such behaviour. In the United Kingdom, the international anti-bullying charity Ditch the Label confirmed that about 25% of over 10,000 randomly-selected 11–18-year-olds surveyed over the previous seven years had been cyberbullied at some point in their lives. About 17% admitted to cyberbullying others during their lifetime. In a study of middle-school youth in the United States of America by the Cyberbullying Research Centre, from January 2014, 12% were reported to have been cyberbullied, while 4% said they had cyberbullied others within the previous 30 days (Cyberbullying Research Centre, 2018). Research has proven that gender plays a role in determining how males and females respond to harassment (Duggan, 2017).

Given the remarkable importance of information, one would expect people to hold strong policies and even stronger positions regarding the ethical use of personal information (Angst, 2009). It is essential to promote responsible use of social media and clearly define who is responsible for addressing inappropriate use of technology. Similarly, Moor (1985), as cited in Bynum and Rogerson (2004), notes that new social/ethical policies for the information age are urgently needed to fill rapidly multiplying policy vacuums. Parents often lack the technical skills to keep up with their kids' online behaviour, and schools should cover it in detail during class time and through other programming. Educators are often doing their part through policies, curricula, training, and assemblies, but sometimes do not know when and how to intervene in online behaviours that occur away from school but still involve their students. In addition, law enforcement agencies are hesitant to act unless there is clear evidence of a crime or a major threat to someone's physical safety (Cyberbullying Research Centre, 2018).

Pew Research revealed that four-in-ten Americans have personally experienced online harassment, including offensive name calling (27%), purposeful embarrassment (22%), physical threats (10%), sustained harassment (7%), stalking (7%), sexual harassment (6%), any harassment (41%) and 62% consider it a major problem. Many want technology firms to do more to curb this problem, but they are divided on how to balance free speech and safety issues online (Duggan, 2017, Overview section). UNESCO (2012) reported that most victims do not tell adults about the bullying, probably because many parents are not as conversant with information technologies as their children, and the young people fear that, in response to such reports, parents will take away their cell phones and internet. The most important preventive step that schools can take is to educate the school community about responsible internet use (Cyberbullying Research Centre, 2018).

3.7.6 Inappropriate content

The widespread use of social media threatens the youth with inappropriate content such as pornography, hate speech and stalking. When young people are exposed to inappropriate content from the internet, they are tempted to copy the behaviour which they see or learn, and this creates a negative impact and severe psychological problems for them (Masrom et al., 2013). Dealing with online hate speech is a growing concern globally. Nairobi news CIPESA (2017) noted a case in which, in the run-up to the August 2017 general election in Kenya, the National Cohesion and Integration Commission (NCIC) monitored social media sites and identified 21 WhatsApp groups for spreading hate speech, and arrested an administrator of another group for spreading false information. Similarly, in Malawi in January 2016, Ken Msonda, a politician, in media interviews and on comments on his Facebook page, said homosexuals had no rights in Malawi and deserved to be killed. Social media users should take responsibility for the harmful content they post online in the same way they claim responsibility for the good content and desire to be recognised for it. Unfortunately, responsibility for bad content comes at a cost, as law enforcement agents, parents, and schools react strongly against the perpetrators.

Twitter (2018) “allows some forms of graphic violence and/or adult content in Tweets marked as containing sensitive media”. The problem, however, is that users cannot determine where to draw the line between appropriate and inappropriate content. For example, if one retweets offensive content or shares a post on Facebook, it is tagged in a status update. If they post a picture on Instagram or even like a photograph, it results in publication (Ferns, n.d.). Sadleir and Harrison (2011) discuss the chain of publication and how users often end up being responsible for other people’s content as well (Milosevic, 2016; Taddeo & Floridi, 2022; Gillespie, 2018). Although many countries do not have laws specifically addressing internet and social media issues, the laws developed for the offline world generally apply. Botswana has a Cybercrime and Computer-Related Crimes Act (2007), which clarifies the offences, including those of circulating pornography and the charges.

The fact that new technologies allow for the hiding of identities makes many youths anxious to explore and experiment with various things, doing so undercover, knowing that their parents, teachers, or others will not be aware of it. The nature of social media is such that people can connect with others they already know, as well as strangers worldwide. One of the most controversial features of social media platforms is anonymity. Users of these platforms can

conceal their true identities, including their names, ages, and other personal information. There are instances of men over 70 years old masquerading as handsome 19-year-olds on social media and luring young, innocent females and males who are around those ages, who end up being subjected to all kinds of depraved conduct and sometimes being killed (Kaati & Meyer, 2015; Whittle et al., 2019; Livingstone & Stoilova, 2021). Others attempt to stalk people they are interested in and discover their whereabouts frequently, and most of the time, the people being stalked are not even aware (Bocij, 2012; Spitzberg & Hoobler, 2002; Marcum & Higgins, 2021). Social media users typically react to these threats by setting strong privacy settings, which in turn limit the amount of information they freely share and discourage interaction with strangers online (Valkenburg et al., 2022; OECD, 2021).

3.7.7 Tendencies of excessive use and addiction to social media

According to Pew Research more than half of teens say it would be difficult for them to give up social media with a third of teens (36%) saying they spend too much time on social media, while 55% say they spend about the right amount of time there and just 8% say they spend too little time (Vogels & Gelles-Watnick, 2023). Girls spend more time on social media than boys, at 41% vs. 31%, respectively. Mwadime (2012) found that parents and teachers reported a negative impact on students' academic performance due to excessive time spent online, whether at school or at home, on social networking sites. Basupi and Mhozya (2017) noted that 44% of Form 2 and 3 students, respectively, at Nanogang Secondary School use Facebook, 21% use WhatsApp, 18% use YouTube, and 14% use Twitter. Compared to other schools, 48% of the teachers at this School used WhatsApp, and 33% used Facebook, respectively. About 37% of the teachers indicated using social media for 30 minutes a day, which is reasonable.

Additionally, 27% indicated using social media for an hour a day, and 23% for more than 3 hours per day. This suggests heavy usage of social media. One student noted, “I use mobile phone always during school hours and at home” (FSF2) (Basupi & Mhozya, 2017, p. 93), despite the fact that the use of cell phones is prohibited in both junior and secondary schools in Botswana by the schools. Similarly, Tsholetso et al. (2017) drew the same conclusion that excessive use of social media, particularly Facebook, led to poor academic performance at the University of Botswana.

The excessive use of social media sometimes leads to addiction, which is one of the problematic outcomes of the introduction of ICTs that has led to problems for individuals, families and society at large (Sargolzaei & Nikbakht, 2017). The more time a user spends on social media, the greater the exposure to risks, including health risks caused by sleep deprivation, overuse of fingers, and eye strain, as well as falling prey to predators. Young people are hooked on games and other online activities available through social networking sites and virtual reality. This is despite the fact that many online games are violent and promote aggressive and antisocial behaviour amongst youths (Palfrey & Gasser, 2016; Sargolzaei & Nikbakht, 2017). Given the numerous games available online, parents and teachers need to know which ones are good and which ones are not. Equally, educators should understand those games that are appropriate so that they can help by implementing well-designed media literacy programs (Palfrey & Gasser, 2016). Parents and teachers play a crucial role in curbing violence among students, as they are the closest to young people, spend a significant amount of time with them, and have their trust (Palfrey & Gasser, 2016). Bányai et al. (2017) surveyed adolescents in Hungary using the Bergen Social Media Addiction Scale (BSMAS). They concluded that school-based prevention and intervention programmes should target adolescents at risk of problematic social media use.

Excessive use of social media can ruin social relationships within homes and society in general, as it distracts people from face-to-face communication. Roughly half of social media users aged 18 to 24 (51%) say it would be hard to give up social media; however, just one-third of users ages 50 and older feel similarly (Smith & Anderson, 2018). Li et al., (2015) conducted a study investigating the characteristics of internet addiction among US students, utilising Young's Diagnostic Questionnaire and the Compulsive Internet Use Scale, as well as focus groups. The study found that users first started using social media at the age of 9 and were already overusing it by age 16. In addition, they were found to be using the internet for 5 hours or the whole day, which led to sleep deprivation, academic underachievement, and a failure to exercise and engage in face-to-face social activities. They also developed negative affective states and decreased ability to concentrate. Tsholetso et al., (2017) recommended in their study on online social networking and academic performance at the University of Botswana that the institution should establish a policy regarding online social networking and internet use, without infringing on individual freedom.

3.7.8 Identity theft

The rampant use of the internet and social media has led to problems of identity theft. People obtain personal details about others from social media sites, including age, addresses, and phone numbers, and then pose as these individuals to defraud them of money from banks and other services (Khan, 2020). Social media platforms, by their design, encourage sharing personal information, which increases users' vulnerability, especially when privacy settings are weak or misunderstood. Among adolescents, identity theft is particularly concerning due to their limited awareness of digital security and the ethical implications of sharing personal data excessively. Young people often disclose detailed personal information on platforms without understanding the long-term risks. This may include full names, school information, daily routines, locations, and even their social connections, details that can be exploited by malicious actors for impersonation or social engineering (Anderson & Jiang, 2018). From an ethical perspective, identity theft violates multiple values central to digital and moral citizenship, including autonomy, dignity, trust, and respect. The WSIS framework affirms the right to privacy and security of personal information as a foundational value of digital inclusion and human rights. Identity theft undermines these principles, leaving victims with reputational damage, emotional distress, and financial loss (WSIS, 2003).

The Potter Box Model of Ethical Reasoning helps in understanding the complexity of dilemmas where competing ethical values are present, such as the conflict between privacy and security. These dilemmas often arise in the context of digital surveillance, data collection, and social media governance. When perpetrators justify impersonation as harmless or opportunistic, they often ignore the moral principles (e.g., respect for people, honesty) and societal values being violated. Similarly, adolescents who commit or experience identity theft may not fully grasp the consequences or the ethical weight of their actions. This highlights the need for structured ethical guidance through digital citizenship education.

In Botswana, the challenges of cybercrime and data protection are compounded by limited public awareness of data protection laws and digital ethics. While the Cybercrime and Computer-Related Crimes Act (2007) criminalises online impersonation and misuse of electronic data, enforcement remains challenging. Students may not be adequately educated on their rights or the responsibilities that come with digital participation.

Therefore, identity theft is both a technical security risk and a moral dilemma that intersects with legal, social, and educational spheres. Addressing it requires a holistic approach—raising awareness, strengthening regulatory frameworks, and building moral reasoning capacity among digital youth. Because rules and norms shape issue patterns, individuals situate them within the regulatory environment (laws and rights), platform governance (terms of service), and societal/institutional norms relevant to schools and families.

3.8 Ethical dilemmas and ethical decision-making in social media use

Every day, humans make decisions on various aspects of their lives. When ethical principles are involved in decision-making, it's called ethical decision-making.

3.8.1 The regulatory environment of social media use

The fact that people of all ages are relying on social media for communication, networking, business, and socialising in the present age makes it imperative that the regulatory environment is conducive (OECD, 2021; UNESCO, 2023). MacLeod (2007) suggests that several factors influence people's ethical decision-making, including religion, cultural norms, institutional norms, philosophical theories and beliefs, and laws. However, what may differ among these factors is the justification for the particular ethical behaviour, and this can give rise to dilemmas. Some people may argue that laws do not play a role in determining whether a person behaves ethically or not in a particular situation; however, the truth is that most laws governing people are based on ethical principles (MacLeod, 2007; Floridi et al., 2018; Stahl, 2021). Therefore, it is essential to examine the regulatory environment when studying ethical issues, as adhering to laws often helps people behave ethically (Taddeo & Floridi, 2022).

Harrison-Evans and Krasodonski-Jones (2017) noted that the nature of the social media landscape makes traditional regulatory systems difficult – for example, continual connectivity through smartphones means that young people are always online outside spaces of parental control. Moreover, when relating to social media, clear guidelines for our moral deliberation can be unclear, such as: who are participants, whose data is it, what is private, and what are the consequences for now and in the future (Henderson et al., 2013, as cited in Henderson et al., 2014; Floridi et al., 2018; Taddeo & Floridi, 2022). The regulatory environment surrounding social media use encompasses social media companies, governments, human rights organisations,

as well as societal, family, and institutional stakeholders. These play a crucial role in ensuring social media governance and the responsible use of social media networks.

3.8.2 Social media platforms' terms of service (ToS)

Social media platforms play a crucial role in shaping how users behave online. It is often assumed that these platforms have the capacity to stop unethical content and behaviour through controlling algorithms or human moderation, such as *Ubuntu* (content moderation where human moderators apply a sense of community, empathy, and social responsibility to their work, rather than following a rigid set of rules). However, they sometimes seem incapable of doing this because of the large volumes of content they have to deal with and the ethical implications of removing content (Harrison-Evans & Krasodonsky-Jones, 2017).

All social media platforms have terms of use and policies that guide users on how to behave ethically on the sites. The terms of service (ToS) of social media platforms provide opportunities for big tech companies to define the ecology and ethical environment of social media (Mao & Wang, 2022). The ToS address issues of transparency, confidentiality, safety, privacy, copyright, adherence to laws, politeness, freedom, information sharing, and freedom of speech. ToS are the foundation for users to get access to services from the platform and join the social media community. They offer constraints and guidance for users' social behaviours and regulate the rights and obligations between users, network platform providers, and third parties, as well as the distribution of rights and responsibilities (Hu & Li, 2019). However, users often disregard or fail to read these terms, leading sometimes to grossly unethical conduct. Many of these ToS include age restrictions, but users misrepresent information, hence large numbers of underage users on the platforms. This means that these young people are being exposed to content that is inappropriate for their ages, which may have negative consequences for their conduct.

More often than not, many of these ToS are very long and cumbersome to read, and the font used is usually tiny and very few users take the time to read them, as evidenced by respondents in this study. Reading about ethical guidelines is an essential first step; however, it does not guarantee that people will use social media platforms ethically and responsibly, as compliance is not directly a result of awareness. There are fragmented global efforts towards ethics training; consequently, many enterprises have codes of conduct in place, but very few employees follow these codes, and most have not taken the time to acquaint themselves with them (Carlon, 2003;

Kaptein, 2019; Stahl, 2021). The Potter Box model can be a valuable tool to assist people in following a moral course of action when the model is used wholly or partially (Christians et al., 2020). Carveth (2006) used all four steps of the Potter Box to provide a comprehensive framework for ethical decision-making in the context of media ethics and journalism. The Potter Box has since been widely used as a framework for analysing ethical dilemmas in media and digital communication (Christians et al., 2020; Taddeo & Floridi, 2022).

On the other hand, Mao and Wang (2022) used the first three steps of the Potter Box Model to extract the overall ethical framework from the ToS text. Other scholars also use selected steps depending on the focus of their study. For example, some might only analyse the values and principles at play to highlight a moral conflict without moving to the final stage of loyalty or action.

Harrison-Evans and Krasodonsky-Jones (2017, p. 88) noted that “through corporate social responsibility initiatives, some providers are also working face to face with local charities to support digital literacy and citizenship”. Krasodonsky-Jones (2017) asserted that Twitter employees in the USA have developed a workshop series in collaboration with a San Francisco-based charity to promote responsible social media use among parents and teenagers.

3.8.3 Human rights and legal environment

Conventional laws of a society are rooted in the moral beliefs of that society, and they assist in making societies stable and secure (Kizza, 2016). Many countries, including Botswana, subscribe to the United Nations Declaration of Human Rights, adopted in 1948. The philosophy of human rights has evolved over many centuries, shaped by the different circumstances and needs of the time and place (Dolamo, 2013). At a regional level, African countries subscribe to the African Union’s Charter on Human and Peoples’ Rights (ACHPR) (CIPESA, 2017). Botswana’s 1966 constitution and the Bill of Rights contain the law that enshrines these rights (Fombad, 2007). In Botswana, section 12 of the constitution pronounces the right to freedom of expression and the right to information as follows,

12. (1) Except with his or her own consent, no person shall be hindered in the enjoyment of his or her freedom of expression, that is to say, freedom to hold opinions without interference, freedom to receive ideas and information without interference, freedom to communicate ideas and information without interference (whether the communication be

to the public generally or to any person or class of persons) and freedom from interference with his or her correspondence. (Constitution of Botswana, 1966, s. 12)

The right to privacy is a fundamental human right enshrined in various legal frameworks, as exemplified in Kenya's constitution, which dedicates sections 31, 33, and 35 to the right to privacy, the right to freedom of expression, and the right to information, respectively. In contrast, in Zimbabwe, Section 57 pertains to the right to privacy, Section 60 concerns the right to freedom of expression, and Section 62 pertains to the right to information (Collaboration on International ICT Policy for East and Southern Africa, CIPESA, 2017). There are other rights included in the constitutions of many countries, including freedom of thought, the right to education, copyright and a fair and free world. These rights are enforced by the legal frameworks of different countries, for example, the Cybercrime Act and the Electronic Records Evidence Act in Botswana. Contrary to studies that have proven legal laws have little or no impact on the ethical judgments and justifications of students (Alakurt et al., 2012), the ethical judgments and justifications of students are also influenced by legal frameworks (Alakurt et al., 2012).

In Action Lines B6 and B8, WSIS advocates for the protection of intellectual property, and B8 advocates for cultural diversity, identity, linguistic diversity, and local content (WSIS, 2003). WSIS has achieved a great deal through organising conferences annually towards this goal. The African Network on Information Ethics (ANIE) initiative, started with the support of UNESCO and ITU, plays a crucial role in implementing the World Summit on the Information Society (WSIS) agenda, particularly in the African context, and is also engaged in efforts to establish an information society. ANIE is engrossed in promoting ethical deliberations related to information and communication technologies (ICTs) in Africa. In 2010, the second ANIE conference was hosted in Gaborone, Botswana.

The Revised National Youth Policy (2010, p. 11) listed the following as the rights of youth.

- i. The right to be provided with appropriate direction and guidance by parents or, where applicable, members of the extended family, the community, as provided by the local customs, legal guardians or other persons legally responsible for the youth, in a manner consistent with the evolving capacities of the youth.
- ii. The right to express their opinion and views freely, including open and reciprocal communication facilitated by parents.

- iii. The right to be protected from abuse, discrimination, stigmatisation, exploitation and all forms of oppression and repression.
- iv. The right to information and access to media.
- v. The right to be given guidance on the positive customs, traditions, cultures, values and norms of the Botswana society.

Recent scholarship on digital rights and youth participation further emphasises that the protection of young people's rights in digital environments must be balanced with responsibilities and ethical conduct in online spaces (Livingstone & Stoilova, 2021; UNESCO, 2023).

It is worth noting that human rights are subject to human duties (Dolamo, 2013). Everyone is responsible for ensuring that all uphold human rights. However, what complicates the narrative is that human rights and other rights, as dictated by different countries and societies, as well as other ethical values, are often in conflict with each other.

3.8.4 Societal, family, and institutional norms

Many researchers agree that ethical dilemmas and ethical decision-making must be investigated in context (Bartels et al., 2014; Capurro, 2007; Ess, 2009; Mutula, 2013). Moreover, evidence in some studies shows that cultural norms affect information behaviour. Brey (2007, p. 10) investigated the issues of privacy in China, Japan and Thailand, and concluded that “cross-cultural normative ethics cannot be practiced without a thorough understanding of the prevailing moral system in the culture in which it is being practiced”. Lesitaokana (2015) noted that cultural norms affect people's use of technology because society expects individuals to have specific virtuous characteristics in both online and offline contexts.

Ubuntu is rooted in the African worldview, based on the values of intense humanness, caring, sharing, respect, compassion, and associated values, which ensure a happy and qualitative community life in the spirit of family (Broodryk, 2008, p. 17). *Botho/Ubuntu* draws from both culture and religion. Dolamo (2013, p. 1) argues that “the cornerstone of botho/ubuntu as a core value in African ethics is the community” and that “the tenets of *botho/ubuntu* are being revisited as Africa is searching for ethical principles and values that can assist in the designing of models of development and wealth creation within the neoliberal and globalising framework”. He states that Africa is a melting pot of cultures, which include African, Western, and Asian, as well as a melting pot of religious traditions, such as African, Christian, Islamic, and Hindu. Each of these

religious traditions and cultures has very rich components of *Botho/Ubuntu* that could be harnessed to make Africa a continent in which people can live more humanely together. According to the *Ubuntu* principle, an act is wrong if it fails to strengthen communal relationships and “tends to encourage the opposites of division and ill will” (Christians et al., 2020, p. 14).

Cultural differences are also significant in the ethical decision-making processes of employees from diverse cultural backgrounds in today's global world (Liu & Chen, 2012). It is not right to assume that a people's ways of doing things work for everyone; therefore, it is essential to know and understand other users' cultural norms and to practice the virtues of humility, understanding, compassion, and forgiveness online (Ess, 2009). Cappuro (2007, 2009) emphasised the value of intercultural information ethics. Cappuro asserts that intercultural information ethics is complicated by the fact that ICTs do not necessarily originate from the societies in which they are used. They may exhibit cultural bias when applied in different contexts. Ess (2009) argued that the mere fact that ICTs are developed by certain people with a distinct culture means that they represent the cultural values and communication patterns of those people. That would result in a remodelling of, especially, the languages, core values, ways of communication, and prominent features of a given culture, as these are crucial in influencing both individual and group identity. This creates ethical dilemmas between technological affordances and societal norms, affecting both students and teachers, as school norms also come into play. If they represent a particular group of people, then this means that tendencies to exclude the values of other people in different contexts also arise. Most social media technologies were developed in the United States of America (Ess, 2009); consequently, they reflect the nuances of that society.

Action Line B8 of the World Summit on the Information Society discusses the promotion of *cultural diversity*, as follows:

52. Cultural diversity is the common heritage of humankind. The Information Society should be founded on and stimulate respect for cultural identity, cultural and linguistic diversity, traditions and religions, and foster dialogue among cultures and civilisations. The promotion, affirmation and preservation of diverse cultural identities and languages as reflected in relevant agreed United Nations documents including UNESCO's Universal Declaration on Cultural Diversity, will further enrich the Information Society.

(WSIS, 2003, para. 52)

53. The creation, dissemination and preservation of content in diverse languages and formats must be accorded with high priority in building an inclusive Information Society,

paying particular attention to the diversity of supply of creative work and due recognition of the rights of authors and artists. It is essential to promote the production of and accessibility to all content—educational, scientific, cultural or recreational—in diverse languages and formats. The development of local content suited to domestic or regional needs will encourage social and economic development and will stimulate participation of all stakeholders, including people living in rural, remote and marginal areas.

(WSIS, 2003, para. 53).

54. The preservation of cultural heritage is a crucial component of identity and self-understanding of individuals that links a community to its past. The Information Society should harness and preserve cultural heritage for the future by all appropriate methods, including digitization. (WSIS, 2003, para. 54)

Globalisation in the information age should not necessarily conflict with cultural diversity, but actually enables people to coexist in the same social space, fostering dialogue among cultures and celebrating diverse societal norms without undermining individual identities. In other words, one is expected to live life within one's own individual and societal context, as well as in a global context. Societies have different perceptions of the ethical issues in the information society, such as privacy and property. Chan et al. (2013) noted the limitations of assuming that computer users from different societies share the same American perspective on software piracy being ethically unacceptable. Drawing on Jones's ethical model and Ajzen's Theory of Planned Behaviour, they proposed an integrative model for the decision-making process underlying software piracy in China. Rodriguez and Obradovac's investigation of the privacy dilemma of using Facebook among different age groups, namely adults and young adults in Sweden, revealed that there was no big difference between these age groups and therefore recommended further development of the topic, looking deeply at the cultural differences of the respondents (Rodriguez & Obradovac, 2017).

Given the centrality of loyalties and norms in school settings, the review turns to the roles of parents and teachers as proximal agents who scaffold ethical reasoning and mediate students' online practices.

3.9 The role of parents and teachers

The cultivation of virtues that eventually enable young people to behave ethically online begins at an early stage, and the role of parents and teachers cannot be overstated. The notions of right and wrong that people learn as young children from teachers and parents live with them forever. The first point of blame for a child's moral decadence can be traced to the family, as the most

common dimensions of child upbringing originate from the home (Isokon et al., 2022). Alakurt et al. (2012) revealed that the responses from students who had taken a course in ethics and those who had not were the same among the respondents in their study of ICT student teachers' judgments and justifications about ethical issues. This implied that most of the values they had applied in their lives were learnt at an early stage. Harrison-Evans and Krasodonsky-Jones (2017), in their study of the virtues of empathy, self-control, compassion, honesty and civic participation, found that those who possessed these virtues were less likely to be implicated in unethical behaviour online.

Literature emphasises the importance of teachers and parents in the lives of children, including students. Through focus groups conducted over several years, Palfrey and Gasser (2016) noted that young people frequently mentioned parents and family members as sources of advice on privacy-related decisions. The researchers implore teachers to step up and impart skills related to digital safety, acknowledging that there are several sound pedagogical ways to achieve this, including a clear curriculum on internet safety.

Yardi (2012, p. 144) investigated ways of supporting parents in managing their children's technology and social media use. The study suggested that future research agendas should consider both the social implications of technology, as they relate to privacy, monitoring, disconnection, and connection, as well as design implications for supporting extended family connectedness and boundary setting. Harnchanchai (2015) studied the behaviours of upper secondary students regarding the use of computers and the internet and recommended that parents and teachers play a more active role. Willard (2007, p. 1) pointed out that “the internet was like a teenager playground with less attention and guidance from parents”. If this playground for teenagers is not monitored well, there may be injuries to some of them. Therefore, this study investigated the role played by parents and teachers in helping students deal with ethical dilemmas arising from their use of social media.

The home environment is critical for shaping young people's behaviour and moral judgment (Harrison-Evans & Krasodonski-Jones, 2017). Often, it is easy to deduce one's home environment by observing their behaviour. The family is pivotal in instilling moral values by enforcing its societal norms and beliefs, as well as religious beliefs. Although there is a myriad of

religious dogmas and sects, most of them promote ethical thinking and judgment. Nevertheless, parents can instil ethical values in their children from a tender age.

The social media revolution is here, and parents should therefore have both the means and the motivation to shape how their children think and act on social media, ensuring that ethical conduct prevails (Harrison-Evans & Krasodonski-Jones, 2017). However, parents have sometimes limited influence over their children because young people resist their efforts, and parents also lack expertise in social media use (Harrison-Evans & Krasodonski-Jones, 2017). In most cases, young people are much more tech-savvy and are the ones who teach parents how to navigate the social media landscape. In addition, parents also take an over-intrusive attitude in order to monitor and control young people's activities on social media, but this too may promote unethical conduct, as young people often find ways to circumvent it, such as by improving privacy settings or creating fake profiles (Harrison-Evans & Krasodonski-Jones, 2017).

Dinama (2012, p. 102) notes that schools naturally teach morality, whether implicitly or explicitly, by conveying to students what is expected of them in terms of what is normal, right, wrong, good, and bad and that it is "uncontroversial that schooling is a moral enterprise". Like parents, schools also have the advantage of being able to instil digital ethics and online responsibility from a very tender age, when children start school. Classrooms are often associated with the culture of care and the teacher's presence in the classroom (Henderson et al., 2014). According to the Botswana National Youth policy, a youth is an individual between the ages of 15 and 35 and form five students in Botswana fall within this group. The Revised National Youth policy of Botswana (2010) proclaims that youths have a right to be provided with appropriate direction and guidance by parents, members of the extended family and the community, and the right to be protected from abuse, discrimination, stigmatisation, exploitation and all forms of oppression and repression, and the United Nations Human Rights Commission echoes the same.

Although initially developed in 1963 to prepare students for the employment world, the Botswana government school curriculum currently includes a guidance and counselling programme that caters to the social, personal, educational, and vocational needs of students (UNESCO, 1998, in Shumba et al., 2017). Empowered with these skills, it is believed that students will be able to make sound ethical choices in life. This programme aims to address

issues such as teenage pregnancy and delinquency, and to help raise children who can make informed moral choices in life.

The guidance and counselling programme consists of four main components:

1. Personal guidance helps students develop self-knowledge, including their values, needs, interests, and aptitudes.
2. Social guidance assists students in building good social relationships and communication skills.
3. Educational guidance seeks to build educational awareness and study skills.
4. Vocational guidance deals with self-awareness and career and job awareness.

(Shumba et al., 2017)

Dinama (2012) asserts that Botswana has adopted values and moral reasoning in the teaching of moral education. With this approach, teaching assumes that there is value in holding clear views and acting on them and that there are no correct answers to ethical dilemmas. In moral reasoning, teachers should engage students intellectually and emotionally through discussions and the resolution of hypothetical moral issues and dilemmas, helping children progress to higher stages of moral thinking. Parents and teachers play a pivotal role in educating young people about privacy and protecting their identities (Palfrey & Gasser, 2016).

Although most teachers are keen to impart digital and ethical skills, significant barriers exist for many to guide young people effectively. These include a lack of sufficient curriculum space within an already crowded and exam-focused schedule, providing teachers with the necessary competencies, and overcoming the wider educational and financial disparities that affect all aspects of learning, including inadequate support and resources (Harrison-Evans & Krasodonski-Jones, 2017; Shumba et al., 2017). Dinama (2012) also notes that one of the main challenges is that what parents prefer for their children to learn and what schools teach may differ significantly, thus giving rise to ethical dilemmas. However, the role of teachers and parents in teaching morality to young people certainly cannot be underestimated.

Generally, young people's use of social media has been portrayed as having a negative impact, especially in terms of their mental health and wellbeing, depicting young people as a vulnerable population, and adults are encouraged to take a protective position for their best interests.

However, others like Livingstone et al., (2005) think by so doing the autonomy, responsibility, competence and agency of adolescents is undermined and call for an alternative view which takes into consideration young peoples' competency, creativity, capability to build their digital literacy in ways that empower them, enabling them to mitigate risk and protect themselves from harm (Livingstone et al., 2005 in O'Reilly, Levine & Law, 2021). Whilst this is plausible, it cannot be overstated that adults, especially parents and teachers, play a significant role in the lives of senior secondary school students. Where applicable, the analysis considers gendered patterns in experiences and outcomes, noting when risks, norms, or sanctions differ across groups.

3.10 The gender dimension

The literature appears to suggest that gender is a significant yet contentious variable in moral judgments on social media. Liu and Chen (2012) found, in a study of ethical decision-making among U.S. and Chinese Business students, that female students, regardless of their cultural background, exhibited a higher social desirability bias and were more ethical than their male counterparts. In a study by Bouhnik and Mor (2014) on gender differences in moral judgment and behaviour of Israeli students on the internet, it was observed that there were differences in the ways male and female students were involved in ethical issues of social media, with more males getting involved in cyberbullying, plagiarism and downloading music and girls making more humane judgments, amongst others. However, there are other studies which have proven otherwise. For example, Alakurt et al. (2012) conducted a qualitative study involving 35 ICT student teachers from the Faculty of Educational Sciences at Ankara University, finding that gender does not affect the ethical judgments and justifications of ICT student teachers. They, however, recommended verification of the relationship between gender and ethical judgments and justifications using larger samples, as the results of various researchers were inconsistent. Although this study initially had 35 respondents, it included 346 students, 20 teachers, and 20 parents and guardians.

3.11 Ethical decision making

The values inherent in information include truth, integrity, respect, freedom, access, tolerance, liberty, privacy, justice, beneficence, and protection (Hauptman, 2008). These values and others enshrined in laws, societal, family, and institutional norms, as well as in the terms of use of social media platforms, are constantly being tested when people use social media platforms. Before an

individual reaches a judgment about how and whether to behave ethically in a specific situation, ethical reasoning or ethical decision-making takes place (Doyle & O'Flaherty, 2013). Ethical decision-making is a prerequisite to ethical behaviour, although it is not the only factor that affects it. Ethical decision-making enables individuals to reflect on whether they are behaving correctly, acceptably, appropriately, justly, positively, or in conformity with societal norms (Hauptman, 2008). Whatever people do must be seen to uphold ethical values, and social media is fundamentally a space to exercise moral judgment and reasoning. The speed, volume, and visibility of communication enable users to confront dilemmas more frequently than in the offline world (Harrison-Evans & Krasodonsky-Jones, 2017).

Individuals need to recognise when a situation necessitates an ethical decision-making process. The capacity to recognise that a situation requires moral judgment is crucial to ethical thinking (Krasodonsky-Jones, 2017). When young people recognise the need for ethical decision-making, they are primarily concerned with the implications of their actions on themselves (consequence thinking), impacts on other people familiar to them (moral thinking) and implications for the wider community (ethical thinking) in justifying their decisions (Harrison-Evans & Krasodonsky-Jones, 2017). In the ethical decision-making process, two individuals in a similar situation may reach different and conflicting ethical decisions, depending on the justifications they employ (Hauptman, 2008). These justifications include classical philosophical theories.

3.12 Gaps in existing literature and contribution of the study

The literature reviewed in this chapter has highlighted a complex web of ethical issues that arise from adolescents' engagement with social media. These issues include privacy violations, cyberbullying, intellectual property infringement, dissemination of misinformation, overuse and addiction, exposure to inappropriate content, and identity theft. Each of these raises profound ethical dilemmas that involve clashes between competing rights, values, and social norms.

What emerges from this literature is that while many studies have explored ethical issues in digital contexts, there is a notable lack of research that applies a structured ethical reasoning framework—especially one that is sensitive to cultural, legal, and social nuances in the African context. This study addresses that gap by applying a structured ethical reasoning framework, the Potter Box Model, to analyse the ethical dilemmas of online behaviour in the specific cultural, legal, and social context of Botswana. Most studies focus on behavioural outcomes, legal

infractions, or psychological effects, but fewer explore the internal moral reasoning processes that adolescents undergo when faced with ethical dilemmas on social media. Even fewer examine the combined influence of global ethical principles, local values (such as *Botho*), and structured moral decision-making models (like the Potter Box) on shaping adolescents' choices.

This study addresses that gap by employing an integrated conceptual framework combining:

- i. The Potter Box Model of Ethical Reasoning (definition, values, principles, loyalty),
- ii. Classical normative ethical theories (Deontology, Consequentialism, Virtue Ethics),
- iii. The WSIS Framework for global digital ethics and rights-based digital citizenship.

These frameworks are not only used to analyse student experiences but also to map how laws, institutional norms, terms of service (ToS), cultural values, and human rights intersect and sometimes conflict in the process of ethical decision-making. This approach adds depth by recognising that ethical behaviour is not only shaped by personal beliefs or peer influence but also by regulatory systems, platform governance, and moral support from parents and teachers.

Additionally, while international studies tend to centre on Western experiences, particularly around platforms like Facebook and Instagram, this study includes a broader range of platforms. It investigates how ethical dilemmas are experienced and resolved among students, teachers, and parents in Botswana. By exploring how individuals define ethical problems, balance conflicting values, apply principles, and choose loyalties, the study offers a systematic account of ethical reasoning in action.

Furthermore, this study contributes new insights on:

- i. The role of ToS agreements and their limitations in guiding ethical conduct.
- ii. The impact of cultural norms, *Botho*, and institutional expectations on ethical behaviour.
- iii. The intersection of freedom of expression with other rights, such as privacy and dignity.
- iv. How parents and teachers support or fail to support ethical development.
- v. The gender dimension in moral judgement and digital behaviour.

Finally, it moves beyond identifying ethical issues to actively exploring how young people make ethical decisions using the Potter Box framework. This offers practical insights for digital citizenship education, school policy, and parental involvement. In doing so, the study strengthens

the theoretical, empirical, and contextual understanding of ethical dilemmas in adolescent social media use in Botswana.

Despite a sizeable body of work on adolescents' social-media use, the literature reveals several gaps relevant to Botswana's senior secondary context: (i) conceptual: models of ethical reasoning are predominantly Western and rarely incorporate African philosophies such as *Botho/Ubuntu* or WSIS-aligned digital ethics; (ii) contextual: Botswana and wider African settings remain under-represented, with limited attention to school policy environments, family/religious norms, and local cultural expectations; (iii) intersectional: gender, socio-economic status, and differential access are inconsistently analysed; (iv) platform coverage: studies over-emphasise Facebook/Instagram, with comparatively little on TikTok, Telegram, Snapchat, and school WhatsApp ecosystems; and (v) methodological: cross-sectional designs dominate, with few mixed-methods, longitudinal, or intervention studies that trace how ethical reasoning evolves.

3.13 Contribution of this study

This thesis addresses these gaps by (a) applying the Potter Box Model to adolescent decision-making in Botswana and explicitly situating values within *Botho* and WSIS principles; (b) analysing school-based norms and the roles of parents and teachers; (c) examining intersectional patterns where data permit; (d) documenting usage and dilemmas across the platforms most salient to local learners; and (e) employing a mixed-methods design to triangulate quantitative patterns with qualitative explanations.

3.14 Alignment to research questions (what literature covers vs. what this study investigates empirically)

RQ1 (Social media use)

- RQ2 (ethical issues): The literature extensively documents privacy, misinformation/accuracy, intellectual property, cyberbullying, excessive use, inappropriate content, and identity theft; however, Botswana-specific prevalence and co-occurrence patterns are empirically established in Chapter 5.
- RQ3 (ethical dilemmas): Prior work outlines typical tensions (freedom of expression vs. safety; freedom of expression vs. dignity) but seldom in African school contexts; this thesis empirically

identifies dilemma patterns among Botswana learners (Chapter 5) and interprets them through the Potter Box (Chapter 6).

- RQ4 (decision-making): There is limited evidence on adolescents' use of formal ethical frameworks; this study empirically examines how learners reason and which principles they invoke (Chapter 5), then theorises these pathways using the Potter Box, *Botho*, and complementary theories (Chapter 6).
- RQ5 (roles of parents and teachers): The literature notes caregiver influence but provides few school-embedded accounts in Botswana; this thesis contributes interview-based evidence from teachers and parents (Chapter 5) and synthesises implications for practice and policy (Chapter 6).

Taken together, the literature clarifies the typology of issues (supporting RQ2) and sketches general dilemma structures (partially supporting RQ3). However, it leaves Botswana-specific patterns of decision-making (RQ4) and the situated roles of parents/teachers (RQ5) to be addressed by the empirical components of this study.

3.15 Chapter summary

This chapter reviewed literature relevant to the ethical dilemmas encountered by adolescents in their use of social media, drawing on global, regional, and Botswana-specific studies. Guided by the Potter Box Model of Ethical Reasoning, classical normative ethical theories (Deontology, Consequentialism, and Virtue Ethics), and the WSIS framework, this chapter presented the literature into four dimensions: the definition of ethical situations, the values influencing behaviour, the principles guiding decision-making, and the loyalties adolescents consider.

The chapter examined a broad range of ethical issues, including privacy, misinformation, intellectual property rights, cyberbullying, excessive use, inappropriate content, and identity theft. It also discussed the regulatory and cultural environments that shape digital behaviour, such as terms of service on social media platforms, national legal frameworks, institutional norms, and family influences. The chapter emphasises the central role of teachers and parents in cultivating ethical thinking, and digital citizenship was also highlighted, as well as the cultural significance of *Botho* in shaping moral character.

Furthermore, the chapter highlights how these ethical dilemmas often involve competing values, conflicting rights, and contextual complexities that require structured ethical reasoning. The

chapter identifies a critical gap in existing literature: a lack of studies that examine how adolescents in African contexts, particularly Botswana, make ethical decisions using formal frameworks such as the Potter Box. The literature review addresses that gap by offering a culturally grounded, theoretically robust, and practically relevant analysis of ethical reasoning in adolescent social media use.

For clarity, the review was organised into four dimensions: definitions (ethical situations), values (influencing behaviour), principles (guiding decision-making), and loyalties (stakeholder considerations), which were then examined sequentially. Within this framework, the literature aligns with the research questions as follows: RQ1 (social media use) corresponds to the facts/context dimension; RQ2 (ethical issues) corresponds to the facts/context dimension; RQ3 (ethical dilemmas) to value conflicts; RQ4 (decision-making) to appeal to principles; and RQ5 (roles of parents and teachers) to loyalties and stakeholder accountabilities. Where the literature is thin, particularly on Botswana-specific decision pathways, these aspects are addressed empirically in Chapters 5 and 6.

This summary threads the reviewed literature back to the research questions via the Potter Box, highlighting where the evidence is strong and where it is thin. The literature reviewed reveals that many people are using social media, and youths, including high school students, have readily adopted technology. However, it is evident that ethical issues and dilemmas have arisen as ethical values often come into conflict. The values of information include privacy, accuracy, property, and accessibility, and these are connected to general societal values of dignity, trust, accountability, safety, respect and others. There is evidence of improper and unethical use of social media by different groups of society. It is also evident from the literature reviewed that not much has been done towards the study of ethical dilemmas that confront students in the use of social media, considering the rate at which the new technology has been embraced by all, so that there is an understanding of why young people behave ethically or unethically, and the deliberations that take place.

This chapter reviewed literature on ethical dilemmas associated with adolescent social media use, guided by an integrated conceptual framework that combines the Potter Box Model, classical ethical theories, and the WSIS framework. The literature was organised according to Potter Box's four dimensions: definition of the ethical situation, values influencing behaviour, principles guiding decisions, and loyalties influencing accountability. This framework provides a structured

way to analyse the ethical tensions adolescents face in digital environments, while incorporating both local values (such as *Botho*) and global digital ethics. On this basis, gaps and inconsistencies, conceptual, methodological, and contextual, are identified, thereby motivating the present study's contribution in Botswana's senior secondary schools.

The next chapter presents the research methodology used to investigate these issues in Botswana's senior secondary schools. It explains the mixed-methods design, instruments, sampling, ethical procedures, and analytical strategies that operationalise the contribution outlined in Chapter 3.

CHAPTER FOUR

RESEARCH METHODOLOGY AND METHODS

4.1. Introduction

This chapter outlines the research methodology and methods used in this study. First, critical methodological concepts such as paradigm, approach, and design, which are often misunderstood or used interchangeably, are clarified and positioned for this study. Second, the research paradigm guiding this study and the justification for adopting a mixed-methods approach are discussed. The research design used in this study is explained and justified, demonstrating its alignment with the research aims. Next, the chapter describes the target population, the sampling strategy, and the data collection process, which involves both questionnaires and interviews, followed by a pilot study. Attention is also given to issues of validity and reliability (and trustworthiness for the qualitative strand), to the ethical considerations observed, and to the data analysis procedures used for both quantitative and qualitative data. Chapter 4 describes how the study was conducted in practice and the reasoning behind each methodological choice. The chapter is outlined as follows: 4.2 Research paradigm; 4.3 Research approach (mixed-methods); 4.4 Research design; 4.5 Target and study population; 4.6 Sampling technique; 4.7 Data collection procedure; 4.8 Pilot study; 4.9 Issues of trustworthiness (including validity and reliability); 4.10 Data analysis; 4.11 Ethical considerations; 4.12 Chapter summary.

4.2 Research paradigm

Research aligns with a pre-existing paradigm or worldview that encompasses the researchers' core philosophical views on truth and reality in general, as well as the research question (Dawadi, Shrestha, & Giri, 2021). Pickard (2013) argues that paradigmatic issues are so crucial that no researcher should undertake research without being clear about the paradigm that informs and guides their research approach. The most popular paradigms are positivism/post-positivism, constructivist/interpretivist, transformative/emancipatory, and postcolonial/indigenous approaches (Wagner et al., 2012). Accordingly, each paradigm is briefly delineated in the following sections, and its relevance to this study is indicated.

In this study, a mixed-methods research approach was adopted, combining quantitative and qualitative methods in order to gain a comprehensive understanding of the ethical dilemmas experienced by secondary school students in their use of social media. The mixed-methods approach allows the researcher to draw on the strengths of both quantitative and qualitative techniques to provide a more complete understanding of the phenomenon under investigation (Creswell & Plano Clark, 2018).

4.2.1 Positivism/Post-positivism

Positivism/Post-positivism assumes an external reality knowable through systematic observation and measurement; post-positivism softens naïve objectivism by recognising theory-ladenness and probabilistic truth. Typical methods include surveys, experiments, and statistical inference (Creswell & Creswell, 2018; Guba & Lincoln, 1994). In this study, the quantitative strand (student questionnaire; reliability testing, chi-square, t-tests, correlations/regression) reflects a post-positivist logic.

4.2.2 Constructivist/Interpretivist

Constructivist/Interpretivist holds that meanings are multiple and socially constructed; researchers co-construct understanding with participants in context, favouring interviews and thematic analysis (Cohen et al., 2018; Guba & Lincoln, 1994). Here, teacher and parent interviews were analysed interpretively to surface situated reasoning about adolescents' online dilemmas.

4.2.3 Transformative/Emancipatory

This one centres power, equity, and voice, asking whose interests are served and how research can advance social justice (Mertens, 2010). This study incorporates transformative concerns by foregrounding learners' rights, dignity, and safety, and by deriving recommendations for school and family practice.

4.2.4 Postcolonial/Indigenous

Postcolonial/Indigenous prioritises local epistemologies and cultural frames, resisting epistemic dominance and validating concepts such as *Botho/Ubuntu* (Chilisa, 2019). The analysis interprets ethical reasoning through *Botho* and aligns with WSIS principles relevant to Botswana's digital ethics commitments.

4.2.5 Paradigmatic stance for this mixed-methods study

Consistent with the above, a complementary stance was adopted: post-positivist for the quantitative strand and constructivist/interpretivist for the qualitative strand, informed by transformative and postcolonial/indigenous sensitivities to ensure voice, cultural fit, and practical relevance in Botswana's school context (Creswell & Plano Clark, 2018).

Research paradigms, approaches, and designs are key concepts that are often misunderstood or used interchangeably. A paradigm refers to the researcher's underlying worldview or philosophical orientation that guides them through the research process (Creswell & Poth, 2018). A paradigm influences what is studied and the interpretation of knowledge.

The positivist paradigm posits that reality is objective, existing independently, and its purpose is to measure reality scientifically. It follows the objective route in research, advocating that knowledge is gained through the gathering of objectively verifiable facts (typically via quantitative designs and experiments) (Cohen et al., 2018; Creswell & Creswell, 2018; Guba & Lincoln, 1994; Saunders, Lewis, & Thornhill, 2019). Quantitative researchers mainly utilise the positivist paradigm.

The constructivist/interpretative approach differs from the positivist approach in that it holds that reality is constructed and knowledge is personal, and its purpose is to understand people's experiences. It is underpinned by the objective route in research and advocates for knowledge attainment through the collection of objectively demonstrable facts using measurable means. (Dawadi et al., 2021; Wagner et al., 2012). The transformative/emancipatory paradigm holds that reality is attached to history and therefore constantly changing and its proponents believe that knowledge is seen in its transformative power; and the post-colonial indigenous paradigm caters for marginalised groups and belief systems (Cohen et al., 2018; Creswell & Creswell, 2018; Guba & Lincoln, 1994; Saunders et al., 2019).

The other paradigm commonly used in qualitative and quantitative research is the pragmatic worldview, which holds that there are multiple realities to be discovered in the world. As a research paradigm, pragmatism is based on the proposition that researchers should employ the philosophical and/or methodological approach that best suits the research problem being explored (Tashakkori & Teddlie, 1998, as cited in Kaushik & Walsh, 2019). A pragmatic approach enables

the use of a combination of qualitative and quantitative methods within a single study. A major underpinning of pragmatist philosophy is that one's understanding of the world is unique, influenced by social experiences and that knowledge is always based on experience. Creswell (2014) asserts that a mixed-methods paradigm is appropriate when neither the quantitative nor the qualitative approaches are adequate on their own for fully understanding the research problem. The use of qualitative and quantitative approaches (mixed-methods) facilitates complementarity. It is flexible and suitable for this study, as it is a new area of research, enabling the researcher to utilise methods that facilitate a thorough understanding of this phenomenon.

4.3 Research approach

A research approach is derived from the paradigm and describes the general methodological strategy adopted, such as qualitative, quantitative, or mixed methods (Creswell, 2014). In this study, a mixed-methods approach is employed, combining the strengths of both qualitative and quantitative approaches. The mixed method approach is plausible because it “potentially enhances study validity beyond quantitative or qualitative research studies, provides greater insights, challenges researchers through divergent or contradictory findings, encourages researchers to alter research questions and hypotheses, and conceivably fills in the gaps, ultimately enhancing the literature” (Caruth, 2013, p. 117). The advantages of mixed methods lie in the fact that the researcher gains an in-depth understanding of the phenomenon being investigated, as it is possible to compare findings from both qualitative and quantitative data. It also helps in making findings more generalisable, which is also the intention of this study. Mixed-methodology approaches have been employed by others in the social sciences, particularly in studies examining the use of ICTs across various economic sectors. Snelson (2016) conducted a qualitative and mixed-methods international study on social media, spanning the years 2007 - 2013. The study identified 55 out of 229 qualitative studies that had adopted the mixed-methods approach, and 23 of these used triangulation. Triangulation refers to the use of multiple data sources, methods, or perspectives within a single study to enhance the credibility, validity, and richness of the findings (Cohen et al., 2018). Harrison (2014) in the United Kingdom, Rodriguez and Obradovac (2017) in Sweden, and Maisiri and Hikwa (2013) in Zimbabwe used mixed-methods in their studies of social media use. Within the mixed-methods approach, a survey design was employed. Survey design is suitable for this study because it is used when a

representative sample is needed instead of the whole population, due to time and financial constraints.

4.4 Research design

A research design is the specific plan or structure used to carry out a study; in this case, a survey design that incorporates questionnaires and interviews. Clarifying these terms ensures conceptual precision and strengthens the coherence of the methodology (Cohen et al., 2018). Research design is the overall plan or blueprint for conducting a study, connecting the research questions to data collection, analysis, and interpretation strategies (Cohen et al., 2018; Creswell, 2014). It outlines how the research will be conducted to ensure that the evidence obtained enables the researcher to address the research problem logically and unambiguously. There are several well-established research designs, each suited to specific types of inquiry. These include case study designs, which provide in-depth exploration of a bounded system or context; exploratory designs, used to investigate issues where little prior research exists; explanatory designs, which seek to explain causal relationships; experimental designs, mainly used in scientific and controlled environments to determine cause and effect; ethnographic designs, which focus on the cultural patterns and perspectives of participants; grounded theory, which aims to develop theory grounded in data; and phenomenological designs, which explore lived experiences from the perspective of those who experience them (Creswell & Poth, 2018; Yin, 2018).

This study adopted a survey research design, which is particularly appropriate for large-population studies and for gathering descriptive data on attitudes, behaviours, or experiences. Surveys are useful in education and social science research for collecting standardised information from a representative sample (Denscombe, 2014). Given the scope of this study, which involves senior secondary school students, teachers, and parents in Gaborone, the survey design is both practical and methodologically sound. It enables the collection of both quantitative data (from student questionnaires) and qualitative insights (from teacher and parent interviews), supporting the study's mixed-methods approach and enhancing validity through triangulation.

This study employs a convergent mixed-methods design, combining both qualitative and quantitative strands to obtain a comprehensive understanding of how senior secondary school students make ethical decisions in social media contexts. The quantitative strand is used to test

relationships between variables derived from the theoretical framework, while the qualitative strand provides deeper insights into students' lived experiences and contextual interpretations.

4.5 Target and study population

The target population in this study comprises Form 5 students in senior secondary schools in Botswana, along with their teachers and parents. In Botswana, senior secondary schools have teachers assigned to engage with researchers and stakeholders at each school. It was through these and other senior teachers that the parents were reached. The target population of 33 public senior secondary schools, comprising 24,347 students (Statistics Botswana, 2017), was identified using the official Ministry of Education and Skills Development (MoESD) register of public senior secondary schools (2017), which was cross-checked against the Statistics Botswana Education Statistics tables as the sampling frame. The study population focused on Form 5 students because they have an adequate learning experience and knowledge to articulate the ethical dilemmas they face in social media environments. Most Form 5 students in Botswana are 18 years old and above. Harrison-Evans and Krasodonski-Jones (2017) note that young people are uniquely positioned, as they are both socially and biologically inclined to engage with social media and highly receptive to developmental influences. As a result, some scholars suggest that the use of the internet and social networking platforms amplifies the challenges of adolescent psychosocial development, expanding the potential for risk-taking while also offering valuable opportunities to gain social insight and experience. Teachers and parents were also surveyed to validate the information provided by the students.

The original reference to a national-level population of 33 senior secondary schools with 24,347 students (Statistics Botswana, 2017) reflects the broader landscape of senior secondary schooling in Botswana. The current study focused specifically on public senior secondary schools in Gaborone. Therefore, the target population consisted of students enrolled in the four senior secondary schools located within Gaborone: Gaborone Senior Secondary School, Naledi Senior Secondary School, Ledumang Senior Secondary School, and St Joseph's College, respectively. These schools were purposively selected due to their urban location, high student enrolment, and access to ICT infrastructure. The characteristics of this population are more homogeneous and relevant to the research questions than those of the broader national population, which would introduce greater demographic and infrastructural variation. As such, the study population and

sampling frame are drawn directly from the student roles of these four schools, targeting only Form 5 learners aged 18 and above, who are more likely to provide informed and ethically sound responses.

4.6 Sampling technique

The study purposively targeted four senior secondary schools in Gaborone, out of the 33 public schools in Botswana. Babbie and Mouton (2001) assert that at times it is acceptable to select a sample based on the researcher's own knowledge of the population, its elements, and the nature of their research aims. The capital, Gaborone, was selected for the study because most people reside here, including students who own smartphones, laptops, and desktops (Statistics Botswana, 2014). Additionally, internet infrastructure is more developed in Gaborone compared to rural areas (World Population Review, 2017), supporting social networking.

The population was stratified into three groups: students, parents, and teachers. The four schools studied had a total of 3,296 Form 5 students, distributed as follows: Gaborone Senior School (817), Ledumang Senior Secondary School (735), Naledi Senior Secondary School (888), and St Joseph's College (856). The sample size within the students' stratum was determined using Krejcie and Morgan's (1970) table for determining sample sizes. Accordingly, a sample size of 346 respondents was selected from 3296 students, based on a 95% confidence level and a 5% degree of error, as shown in Table 4.1 below.

Table 4.1: Krejcie and Morgan's table for determining sample size

N	S	N	S	N	S
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

Source: Krejcie and Morgan (1970)

The relative distribution of sample sizes was undertaken proportionately among the four schools as per the calculation that follows,

Gaborone SSS sample size = $\frac{\text{Gaborone SSS population} \times \text{sample size (at 5\% error margin)}}{\text{Total population}}$

$$\frac{817 \times 346}{3296} = 86$$

The distribution of sample sizes of students per school is reflected in Table 4.2 below.

Table 4.2: Distribution of sample size of students per school

Schools	Population	Sample size
Gaborone SSS	817	86
Naledi SSS	888	93
Ledumang SSS	735	77
St Joseph's College	856	90
Total	3296	346

A list of Form 5 students who are 18 years and above was compiled during a pre-survey visit, using the class register as the sampling frame. Subsequently, systematic sampling was used to select respondents to complete the questionnaire.

A list of all Form 5 students who are 18 years and above was compiled during a pre-survey visit using the class register as the sampling frame. From this list, respondents were selected using the systematic sampling technique to complete the questionnaire. This involved arranging the list in register order and selecting every k-th student (for instance, every 5th or 10th name) after

randomly determining a starting point (Cohen et al., 2018). Systematic sampling was more suitable for this study since it is straightforward to apply in educational settings, provides a more evenly distributed sample, and reduces the likelihood of sampling bias due to clustering (Denscombe, 2014; Teddlie & Yu, 2007).

After considering other sampling techniques, such as simple random sampling, which is statistically rigorous but requires individual numbering and the use of a random number generator, this approach seemed impractical in these settings (Creswell & Creswell, 2018). It would also have required a complete and current list of all $\approx 24,347$ students across the 33 public senior secondary schools, individual numbering of each learner, and random selection, conditions not met in this context. This was impractical because (i) a single, shareable student-level sampling frame did not exist across schools; (ii) ethical and data-protection constraints limited access to complete learner registers for minors; and (iii) randomly locating selected individuals across multiple campuses and timetables would have entailed substantial time, travel, and classroom disruption. Accordingly, a two-stage design was implemented: four schools in Gaborone were purposively selected for access, and within each school, students were selected systematically from class registers. Specifically, a sampling interval ($k = N/n$) was implemented for each school/grade. A random start between 1 and k was drawn, and every k -th name was selected until quotas were met, with proportional allocation by grade (Form 4/Form 5) and gender, and a pre-specified same-day replacement rule for absentees. Within the four schools (combined enrolment $N = 3,296$), the target of $n = 346$ learners yielded k values of approximately 9–10 per school/grade (adjusted for enrolment differences). This approach retained probabilistic selection while aligning with ethical approvals, data-access limitations, and school timetables.

Stratified sampling, which involves dividing the population into subgroups based on characteristics such as gender or academic stream, was not preferable in this study, as it is primarily focused on the general ethical experiences of students with social media, rather than subgroup comparisons. Cluster sampling, where entire groups (such as classes or streams) are randomly selected, was ruled out to avoid homogeneity within the sample and over-representation of particular groups (Bryman, 2016). Based on these considerations, systematic sampling was found to be the most practical, efficient, and contextually appropriate method for ensuring a fair and representative sample of students across the four selected schools.

Similarly, the pre-survey helped establish the number of teachers in each school. From this group, systematic sampling was used to select five teachers from each school, resulting in a total of 20 teachers overall. The concept of data saturation suggests that a small but well-chosen sample can yield rich and relevant insights when the goal is depth of understanding knowledge rather than statistical generalisation (Guest et al., 2006). The selection of five teachers per school was guided by practical considerations, including availability, willingness to participate, and coverage across various subject areas and teacher roles. This size also aligns with similar qualitative studies on ethical dilemmas and ICT in schools (Kuzu, 2009; Lennie, 2013; Ulvik et al., 2017), where 5–10 participants per site were found sufficient for rich thematic analysis.

A total of 20 teacher interviews (five per school) and 20 parent interviews (five per school) were conducted. Data saturation was monitored throughout the data collection process. Saturation was considered achieved when no new themes or substantive insights were emerging from successive interviews, and responses began to demonstrate repetition and convergence (Guest et al., 2006). By the fourth interview in each school, recurring patterns were evident, and the final interviews confirmed thematic stability rather than introducing new conceptual categories.

Ulvik et al. (2017) conducted a study on the ethical aspects of professional dilemmas in the first year of teaching among secondary school teachers in Norway, involving 20 participants in semi-structured interviews that lasted one hour each. While the total population of first-year teachers in the country was significantly larger, the sample was purposively selected to ensure variation in teaching contexts and subject areas, with the aim of achieving data saturation rather than statistical representativeness. Similarly, Kuzu (2009) conducted a study with 20 participants on computer ethics problems in Turkey, including privacy, accuracy, property, and access. Kuzu purposively selected smaller samples that were relevant to the study's focus, with the aim of gathering rich and diverse data over prioritising statistical representativeness. According to Guest et al. (2006), qualitative research conventions typically require 12 to 20 interviews to achieve data saturation. Other related studies on the responsible use of social media and ICT have utilised small, purposively selected samples. Lennie (2013) in Canada used a sample of eight teachers in the study on complexities of ICT use in education. Rodriguez and Obradovac (2017) conducted a comparative study with 13 respondents on users' perceptions of privacy issues on Facebook. Nyangeni et al. (2015) used a sample of 12 nursing students to examine their perceptions of the responsible use of social media.

Parents who are members of the Parent-Teachers Association (PTA) were invited to participate in this study. This cohort of parents, who are members of the PTA, was chosen because they have a close working relationship with the schools. Five parents from each school were selected, making 20. While the researcher made efforts to ensure overall balanced representation across all schools, this was not always feasible due to the small number of participants involved. The researcher selected an approximately equal number of males and females as participants.

4.7 Data collection procedure

The study utilised a structured survey questionnaire to collect data from Form 5 students. The researcher sought assistance from class teachers to administer the questionnaire to the systematically selected students at each of the four participating schools, namely Naledi Senior Secondary School, St Joseph's College, Ledumang Senior Secondary School, and Gaborone Senior Secondary School. At some schools students were temporarily excused from class to the guidance and counselling room in their respective schools, where they completed the questionnaire without interference or influence from others and for others the questionnaire was administered in their classrooms .

A structured questionnaire administered to students comprised five-point Likert scale items to assess the following attributes:

1. Ethical issue awareness
2. Experience of ethical dilemmas
3. Moral values (e.g., respect, justice, responsibility)
4. Moral support (e.g., parental/teacher guidance)
5. Decision-making patterns
6. Ethical outcomes (ethical breakthroughs)

Semi-structured interviews were used to collect data from teachers in all four senior secondary schools. While the researcher attempted to balance gender participation, systematic sampling did not permit balanced representation. The class list was not arranged by gender, a limitation that was taken into account during data interpretation. The teachers were either reached in their offices or in the guidance room at arranged times. Similarly, interviews were used to collect data from parents. Parents were reached through the chairperson of the PTA and met at the school. According to Abawi (2013), semi-structured interviews are useful for ensuring in-depth analysis

of phenomena, allowing the researcher to explore participants' views, feelings and experiences. Lennie (2012) employed in-depth, semi-structured interviews to explore the ethical considerations inherent in the experiences of youth participating in virtual worlds. Semi-structured interviews provided a strong basis for exploring the perspectives of teachers and parents on ethical dilemmas arising from social media use.

Each interview lasted between 45 and 60 minutes. With participants' consent, interviews were audio-recorded to ensure accuracy and were subsequently transcribed verbatim. Field notes were also taken to capture non-verbal cues and contextual observations. All interviews were conducted in English, which is the medium of instruction in senior secondary schools in Botswana.

Data collection procedures were applied consistently across all four participating schools to ensure methodological uniformity.

4.8 Pilot study

This study aimed to investigate the ethical dilemmas associated with social media use among students in senior secondary schools in Gaborone, Botswana. The study assumed that students can access social media through smartphones, desktop computers at school, at home, in the library, or at cybercafes. The pilot study was conducted at Kagiso Senior Secondary School in Ramotswa, which is in the neighbourhood. After visiting the school and planning with the Deputy Head and a senior teacher assigned to assist the researcher, data collection commenced on April 2, 2019, and ended on May 15, 2019.

Upon realising that the number of students who were 18 years and above was manageable, the researcher decided to take a census. A senior teacher called all Form 5 students who were 18 years and above to assemble in the school hall, and the researcher explained the purpose of the research and informed them that they were free to choose whether to complete the questionnaire or not. They received the consent form, and the researcher further explained its contents. Those who were willing to participate in the study then signed and returned it to the researcher. A questionnaire was administered to all participants by the researcher and an assistant.

In total, 107 questionnaires were completed, with one spoiled; three teachers were also interviewed. The pilot study informed minor refinements to the questionnaire wording and

sequencing to enhance clarity and reliability prior to the main data collection phase. No pilot findings are included in the substantive results of the study.

4.9 Issues of trustworthiness

While two central concepts in research are reliability and validity (Silverman, 1993), they are commonly associated with quantitative studies. Lincoln and Guba (1985) assert that the concept of trustworthiness establishes comparable measures of rigour. Trustworthiness consists of credibility, authenticity, transferability, dependability, and confirmability. In this study, credibility was ensured through the triangulation of data sources (students, teachers, and parents) and the use of semi-structured interviews, which allowed participants to express their experiences in depth. Transferability was supported by providing comprehensive descriptions of the research context (including site setting, participant characteristics, data-collection procedures, and relevant contextual factors), while dependability and confirmability were addressed by keeping detailed notes and maintaining a clear audit trail throughout the data collection and analysis process (Geertz, 1973; Lincoln & Guba, 1985). Authenticity was ensured by presenting multiple voices and perspectives, particularly in the reporting of qualitative findings.

According to Bollapragada (2012, p. 35), validity is the extent to which an instrument measures what it is intended to measure, and reliability is the degree of consistency with which the instrument in the study measures a variable. To ensure the reliability of the questionnaire, it was pre-tested in a school not involved in the study, and the results were analysed to generate a Cronbach's alpha coefficient. Items in the questionnaire with a Cronbach's alpha value of 0.7 or above were retained, while those below this value were amended and/or dropped altogether after pilot testing. Triangulation of data was achieved by integrating findings from qualitative (interviews) and quantitative (questionnaires) components of the study to ensure validity. The process involved initial analysis of quantitative questionnaire data using descriptive statistics to identify patterns in students' responses about their experiences with ethical dilemmas on social media. These patterns were then compared with themes that emerged from the qualitative interview data collected from teachers and parents. The aim was to identify areas of convergence, complementarity, and divergence between the two datasets. For example, if students reported experiencing particular ethical challenges online, these were cross-checked against the perspectives of teachers and parents to see how these dilemmas were understood or responded to

by adults. This process helped to enhance the credibility of the findings by validating results through multiple sources and deepening the overall understanding of the issue.

4.10 Data analysis

Qualitative data, consisting of text in the form of notes jotted down by the researcher during interviews or transcribed from audiotapes, were manually coded and analysed by identifying important categories, patterns, and relationships through a process of discovery (Schutt, 2006, p. 327). While qualitative software such as NVivo could have been helpful, the amount of data from the interviews was manageable. Additionally, manual coding allowed for a closer engagement with the transcript, leading to a nuanced understanding of the emerging themes. Repeated reading of the data led to inductive development of themes, grounding the analysis in the participants' actual words.

On the other hand, quantitative data collected through structured questionnaires administered to students were analysed using the Statistical Package for the Social Sciences (SPSS). The analysis included descriptive statistics such as frequencies, percentages, means, and cross-tabulations, which helped to summarise student responses and highlight patterns related to their experiences of ethical dilemmas in social media use.

In addition to descriptive analysis, inferential statistics were applied to test the null hypotheses formulated in Chapter One. Specifically, the Chi-square test of independence was used to examine associations between categorical variables (e.g., the presence of ethical dilemmas and types of moral support). Where appropriate, correlation analysis was conducted to assess the strength and direction of relationships between variables, including ethical dilemmas, moral values, and decision-making. These tests provided empirical evidence on whether variables derived from the theoretical framework had a statistically significant relationship, thereby informing conclusions on ethical reasoning and behaviour among students.

This quantitative strand complemented the qualitative analysis by offering generalisable insights into the prevalence, patterns, and correlates of students' ethical decision-making processes in digital environments.

4.11 Ethical considerations

Oliver (2003) states that research in which data is collected from people has a fundamental requirement that they must be treated according to standards and values which affirm their essential humanity. To comply with research ethics, the researcher fulfilled the following obligations. The respondents were informed about the study's objectives. The respondents were informed that they were free to withdraw from the study at any time if they wished to do so without facing any sanctions. Informed consent was sought from the respondents before they participated in the study. The researcher sought permission from the Ministry of Education in Botswana as well as from the schools included in the study (Appendix 5). The researcher also complied with the requirements of the University of KwaZulu-Natal's ethics committee (Appendix 4). Respondents were also assured of anonymity.

4.12 Chapter summary

This chapter outlines the research methodology and methods employed in the study. It clarifies the concepts of paradigm, approach, and design, highlighting the pragmatic paradigm and mixed methods approach adopted. The chapter detailed the survey research design, described the target population (Form 5 students, teachers, and parents in four Gaborone schools), and explained the sampling strategies used—including systematic and purposive sampling. The data collection tools (questionnaires and semi-structured interviews) and procedures were presented, followed by a discussion on trustworthiness, validity, and reliability, including the findings from the pilot study. Finally, the qualitative and quantitative data analysis procedures were explained, along with the ethical considerations observed throughout the research process.

Table 4.3 provides an at-a-glance alignment of the study's five research questions with their corresponding sources of evidence, analysis techniques, and validation procedures. By pairing student questionnaires and interviews with descriptive statistics (using SPSS) and thematic analysis, and by applying triangulation, reliability testing (Cronbach's alpha), and thick description, the table clarifies how rigour and trustworthiness are built into the design. It serves as a roadmap linking what the study asks, where the evidence comes from, how it is analysed, and how credibility is ensured.

Table 4.3: Overview of research questions, data sources, analysis, and validation

Research Question	Source of Data	Data Analysis Strategy	Validation Strategy
1. What is the status of social media use amongst senior secondary school students in Botswana?	Student questionnaires Teacher/parent interviews	Descriptive statistics (SPSS); Thematic analysis	Triangulation Cronbach's alpha; cross-checking with interview data
2. What ethical issues are encountered by students in senior secondary schools in Botswana in the use of social media?	Student questionnaires; teacher/parent interviews	Descriptive statistics (SPSS); Thematic analysis	Triangulation; Cronbach's alpha; cross-checking with interview data
3. What ethical dilemmas do students encounter when using social media?	Student questionnaires; teacher/parent interviews	Descriptive statistics (SPSS); Thematic analysis	Triangulation; Cronbach's alpha; cross-checking with interview data
4. How do students make decisions to resolve ethical dilemmas they encounter on social media?	Student questionnaires Teacher/parent interviews	Descriptive statistics (SPSS) Thematic analysis	Triangulation; credibility and transferability through thick description
5. How do parents and teachers assist students to resolve ethical dilemmas on social media?	Teacher and parent interviews	Thematic analysis of interview transcripts	Triangulation; credibility and transferability through thick description

CHAPTER FIVE

DATA ANALYSIS AND PRESENTATION OF RESULTS

5.1 Introduction

This chapter presents the data analysis and interpretation of the research findings, based on questionnaires and interviews administered to students, teachers, and parents.

The chapter is organised as follows: Section 5.2 presents the quantitative results, including reliability tests and sample demographics; Sections 5.3–5.6 present the findings on social media use patterns, ethical issues and dilemmas, and students' ethical decision-making processes; Section 5.7 presents descriptive and inferential statistical analyses; Sections 5.8–5.9 present qualitative findings from teacher and parent interviews; Section 5.10 synthesises statistical relationships; and Section 5.11 provides the chapter summary.

Methodological triangulation was employed to integrate quantitative and qualitative evidence, illuminating the richness and complexity of human behaviour from multiple vantage points (Cohen et al., 2007, p. 141). Whilst triangulation comes in many forms including time triangulation (found in longitudinal and cross-sectional studies), space triangulation (when a number of schools in an area are considered), investigator triangulation (as when two observers separately measure the same phenomena), and methodological triangulation, among these methodological triangulation is the most widely used and possibly has the most to offer (Cohen et al., 2007). Accordingly, methodological triangulation of quantitative and qualitative findings was employed to enhance the credibility and validity of the research findings.

5.2 Sample characteristics and reliability of the instrument

This section presents the characteristics of the study sample and evaluates the reliability of the research instrument used to collect data from students. Establishing the reliability of the questionnaire is an important step in ensuring that the instrument consistently measures the constructs it is intended to measure. The section therefore begins with the reliability test conducted using Cronbach's alpha coefficient, followed by the presentation of reliability statistics. Thereafter, the demographic characteristics of the respondents, including the schools,

age, and gender of the participants, are presented in order to provide a clear description of the study sample.

5.2.1 Reliability test

Table 5.1 summarises case inclusion for the questionnaire reliability analysis (Cronbach's α). Using listwise deletion across all scale items, 163 cases (46.3%) were retained, and 189 cases (53.7%) were excluded due to missing responses (Total N = 352).

Table 5.1: Case processing summary

		N	%
Cases	Valid	163	46.3
	Excluded	189	53.7
	Total	352	100.0
a. Listwise deletion based on all variables in the procedure.			

Table 5.1 shows that of the 352 questionnaires collected from students, 189 were excluded from the questionnaire reliability test using listwise deletion across all variables. This means that 189 questionnaires were excluded from the reliability analysis due to incompleteness as some items contained missing responses. Although 352 questionnaire were initially collected, only 350 were considered usable for the main descriptive analysis after the data cleaning process, where incomplete or invalid responses were removed.

5.2.2 Reliability statistics

Table 5.2 reports the internal consistency of the student questionnaire, with Cronbach's $\alpha = 0.840$ across 78 items, indicating good reliability for research purposes ($\alpha \geq 0.80$ is regarded as good).

Table 5.2: Reliability statistics

Cronbach's Alpha	N of Items
0.840	78

Table 5.2 shows that the analysed instrument had a Cronbach's alpha value of 0.840, which is within the acceptable range. In this regard, Cohen et al. (2007, p. 137) argue that an "instrument must show that it fairly and comprehensively covers the domain or items that it purports to

cover”. In this research, the instrument was assessed for face and content validity, which entails evaluating whether the test measures what it is intended to measure. The results were found consistent by a statistician who certified that it was a good measure of what it was intended to measure, namely “ethical dilemmas in the use of social media by students in public senior secondary schools in Gaborone, Botswana.” In addition, Cronbach’s alpha value of 0.840 is a good measure of the internal consistency of the instrument used to gather data for this research. This means that the questionnaire was reliable and suitable for collecting data that were deemed valid and of integrity. This means that analysing the gathered data using the research questionnaire was appropriate.

5.2.3 Demographic information

The demographic information considered in this study included the schools, age, and gender of the respondents.

5.2.3.1 Schools under study

As shown in Table 5.3, the sample was drawn from four senior secondary schools GSS (n = 99, 28.3%), Naledi (n = 87, 24.9%), St Joseph’s (n = 86, 24.6%), and Ledumang (n = 78, 22.3%); totals sum to N = 350, with proportional differences reflecting school enrolment sizes.

Table 5.3: Student distribution by school

		Frequency (n)	Percent
Valid	GSS	99	28.3
	Ledumang	78	22.3
	Naledi	87	24.9
	St Joseph's	86	24.6
	Total	350	100.0

GSS had the highest representation, at 28.3%, followed by Naledi at 24.9%, St Joseph's at 24.6%, and Ledumang at 22.3%. The variations in proportions were due to differences in school population sizes.

5.2.3.2 Age

Figure 5.1 shows that the majority of respondents were 18 years old, constituting 82% (n = 287) of the respondents, while the remaining 18% (n = 63) were above 18 years old. The age distribution was also representative of the population,

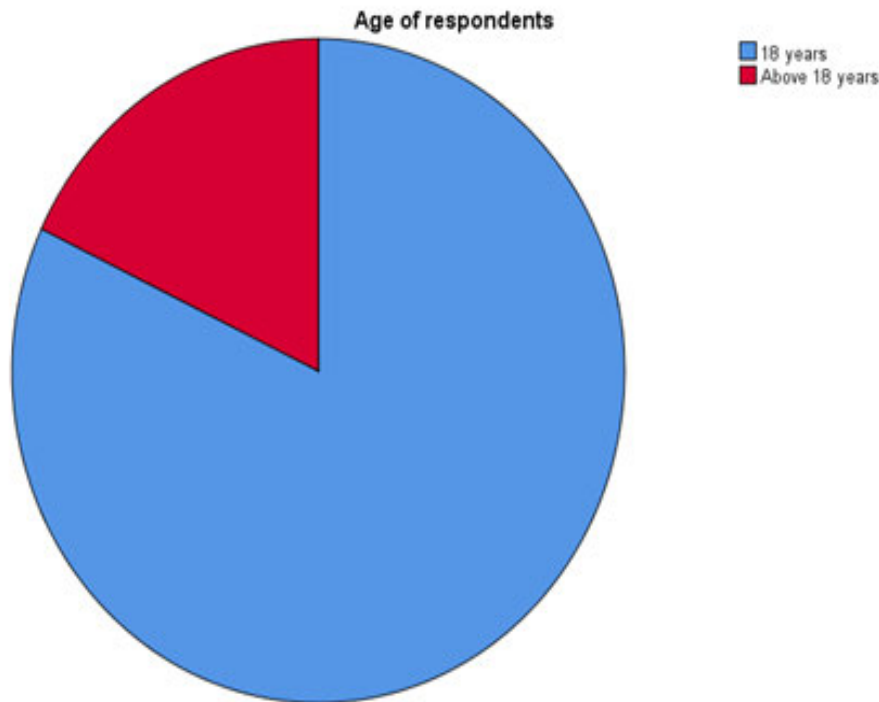


Figure 5.1: Respondents' ages

5.2.3.3 Respondents' gender

Figure 5.2 shows that 51.3% of the respondents were females and the remaining 48.7% were males. Although there were more females than males, these findings suggest that the research was nearly balanced in terms of gender.

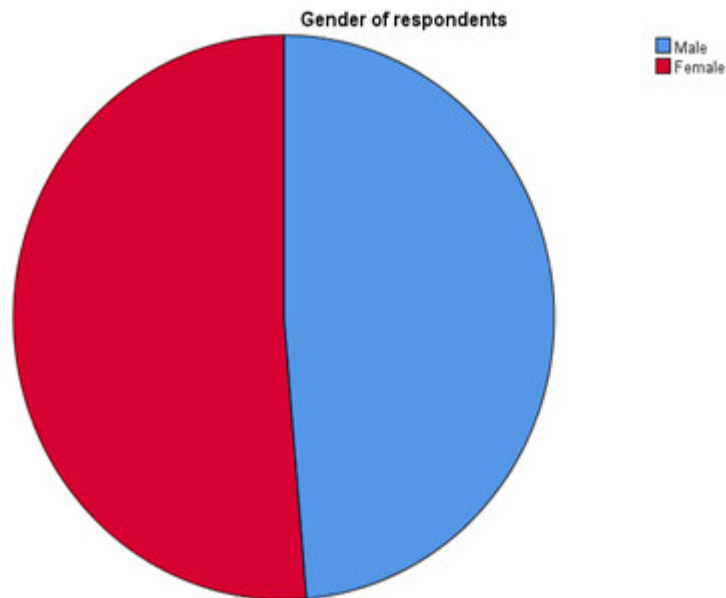


Figure 5.2: Gender of respondents

5.3 Presentation of findings of the study

Having established the reliability of the research instrument and the demographic characteristics of the respondents, this section presents the core findings of the main study. The revised questionnaire and interview guides were administered to senior secondary school students, teachers, and parents across four schools in Gaborone, Botswana. The data gathered were analysed using both quantitative and qualitative methods in order to explore the ethical dilemmas that students encounter in their use of social media, the values they consider in their decision-making, and the role of adult guidance in shaping ethical behaviour online.

This section begins with an analysis of students' social media use patterns, including platform preference, frequency of use, time spent, devices used, and purpose of use. From there, the discussion delves into the challenges students faced, including ethical issues and dilemmas, followed by an exploration of their ethical reasoning processes.

To establish statistical relationships and test the study's hypotheses, correlation, chi-square, and regression analyses were employed. These techniques helped uncover the underlying relationships between key variables, including ethical issues, dilemmas, decision-making, and moral support. Where relevant, cross-tabulations were included to highlight trends and differences based on demographics such as gender and age.

By triangulating findings from students' questionnaires with interview data from teachers and parents, this section aims to present a rich, multi-perspective understanding of digital ethical behaviour in Botswana's secondary school context. The analysis is framed by the theoretical models outlined in Chapter 2, particularly the Potter Box model, the classical ethical theories of deontology, consequentialism and virtue as well as the WSIS framework, to ensure conceptual coherence throughout the discussion.

5.4 Social media use

This section examines the various social media platforms used by students in senior secondary schools in Gaborone, as well as their usage patterns.

5.4.1 Stages of respondents' social media use

Responding to when the students started using social media, most of the students (67.7%) indicated that they began using social media during junior secondary school. This is the time when they are in Form 1, form 2 and Form 3. Others, (23%) indicated they were in primary school when they started using social media and a few (9.3%) confirmed that they started using social media when they were in senior secondary school, which covers the period when they are between Form 4 and Form 5 respectively.

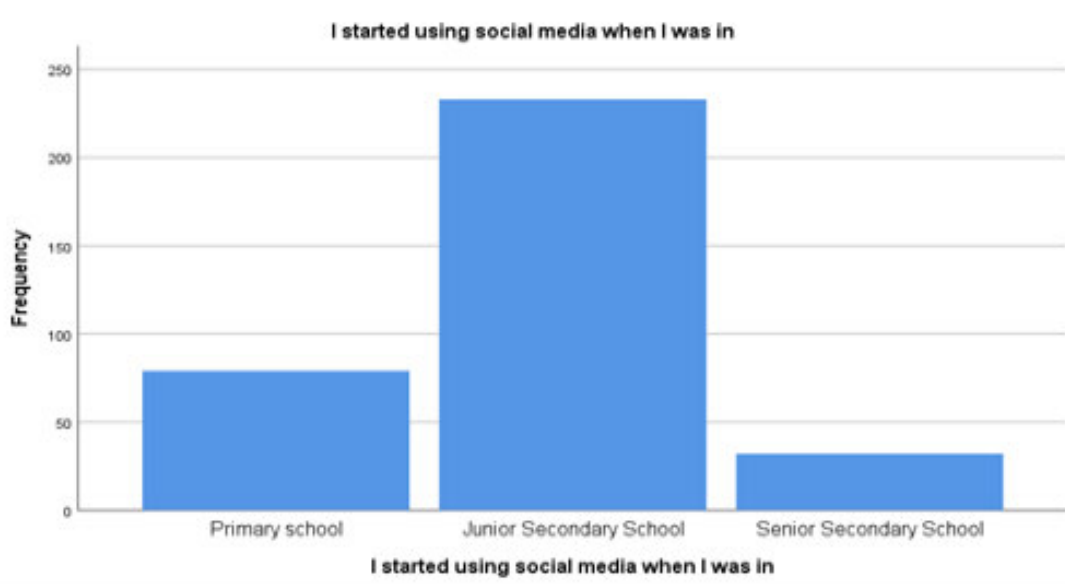


Figure 5.3: Stages at which respondents started using social media

The findings indicate that, although most students reported starting to use social media in junior secondary school, social media use actually began as early as primary school. By the time students reach senior secondary school, they are already familiar with social media and are using it to varying degrees.

5.4.2 Introduction to social media

As shown in Table 5.4, introductions to social media were predominantly self- or peer-initiated, “Self” (n = 130, 39.8%) and “Friend” (n = 121, 37.0%), with smaller shares indicating via siblings (n = 58, 17.7%), parents (n = 13, 4.0%), and teachers (n = 5, 1.5%) (valid N = 327); patterns were broadly similar across gender, with only minor differences.

Table 5.4: Respondents' introduction to social media

I was introduced to social media by * Gender of respondents Cross tabulation					
			Gender of respondents		
			Male	Female	
I was introduced to social media by	Self	Count	61	69	130
		% of Total	18.7%	21.1%	39.8%
	Parent	Count	4	9	13
		% of Total	1.2%	2.8%	4.0%
	Sibling	Count	26	32	58
		% of Total	8.0%	9.8%	17.7%
	Friend	Count	66	55	121
		% of Total	20.2%	16.8%	37.0%
	Teacher	Count	3	2	5
		% of Total	0.9%	0.6%	1.5%
Total		Count	160	167	327
		% of Total	48.9%	51.1%	100.0%

Responding to those who introduced the students to social media, 39.8% said they had introduced themselves, 37% were introduced by friends, 17.7% by siblings, 4% by parents, and 1.5% by teachers. These findings suggest that most respondents discovered social media on their own, and also often with the help of friends and siblings. Notably, parents and teachers played a limited role in this respect, as very few were introduced by them. This can be attributed to the fact that technology is generally intimidating, especially to older generations, and also due to parents' limited exposure. Gender did not seem to play a significant role in how young people are introduced to social media.

5.4.3 Frequency of social media platform use

As shown in Table 5.5, platform use differs markedly on a 1–5 Likert scale (1 = always ... 5 = Never): lower Mean indicates more frequent use. The most frequently used platforms are

WhatsApp (Mean = 2.22, 41.8% “Always”; 19.5% “Very often”), Facebook (Mean = 2.62, 23.4% “Always”; 17.4% “Very often”), and YouTube (Mean = 2.58; 30.2% “Always”; 20.6% “Very often”). By contrast, Twitter (Mean = 4.45) and LinkedIn (Mean = 4.78) are seldom used (68.8% and 89.6% “Never,” respectively), with Instagram showing moderate use (Mean = 3.49). Percentages are reported per platform, with valid N (see Table 5.26).

Table 5.5: Social media platforms frequency of use

Descriptive Statistics								
How often do you use the following social media platforms?	N	Mean	Std. Dev	Always %	Very often%	Sometimes %	Rarely %	Never %
Facebook	350	2.62	1.19	23.4	17.4	41.7	8.3	9.1
Twitter	336	4.45	0.98	3.6	1.5	9.8	16.4	68.8
Wikipedia	335	4.31	1.11	3.6	5.7	12.5	12.2	66.0
LinkedIn	328	4.78	0.73	1.5	1.5	4.0	3.4	89.6
WhatsApp	349	2.22	1.31	41.8	19.5	23.2	5.7	9.7
YouTube	344	2.58	1.39	30.2	20.6	25.6	8.1	15.4
Instagram	341	3.49	1.55	17.6	11.4	18.8	8.5	43.7

Always=1, Very often=2, Sometimes=3; Rarely=4 and Never=5

Table 5.5 presents findings, using descriptive statistics, on the frequency of social media use. A mean value closer to 1 is interpreted as the participant always used the social media platform; a value close to 2.5 shows that they sometimes used it, and a value closer to 5 shows that they rarely use it. Findings (Mean = 2.62, N = 350) show that participants sometimes used Facebook. This is supported by 23.5% who indicated 'always', 17.4% who indicated 'very often', and 41.7% who indicated 'sometimes'. This clearly demonstrates that Facebook is the most popular social media platform among students in Botswana, with over 90% of respondents admitting to using it to varying degrees. Findings show that 23.4% said they always used Facebook, while 17.4% said

they used it very often, 41.7% said they sometimes used Facebook, and 8.3% said they rarely used it. Findings show that although there is a substantial number of respondents who are subscribed to this platform who are heavy users, as indicated by 'Always' on the Likert scale, the degree of use by the majority of the individual Facebook users is moderate, as was displayed on the Likert scale by 'Sometimes'.

Another platform that is almost as popular as Facebook is WhatsApp, with over 90% of respondents indicating that they are subscribed to and use it, as presented in the findings above (Mean=2.22, N=349). Lesitaokana (2016) noted that this social media platform, primarily used for text messages, has been widely accepted among the people of Botswana, with some individuals using it in inappropriate places, such as funerals and churches. It is used for various purposes, including sharing videos and photos, facilitating group discussions, hosting group calls, and recording voice notes, among others. Regarding how often respondents use WhatsApp, 41.8% indicated they always use it, 19.5% very often, 23.2% sometimes, 5.7% rarely, and 9.7% never. What's intriguing is that most respondents (41.8%) reported being heavy users of the platform and always using it, rather than using it very often, sometimes, or rarely, on the Likert scale. WhatsApp is a social media platform that many people in Botswana and worldwide use, offering the convenience of being available anytime, anywhere. It is user-friendly, and even elderly people can easily use it. Additionally, it is reasonably priced, with many telecommunications companies often offering special discounts for data.

YouTube is also quite popular among students in senior secondary schools in Botswana (Mean = 2.58, N = 344). About 84.6% of respondents confirmed they use it, with 30.2% saying they always use it, 20.6% saying they use it very often, 25.6% saying they use it sometimes, 8.1% saying they rarely use it, and 15.4% saying they never use It. These findings suggest that YouTube is popularly used by the respondents, as more than half agreed to using it quite often, indicating 'Always' and 'Very often' on the Likert scale.

These findings suggest that Twitter is also used by students in senior secondary schools in Botswana; however, its use by the respondents is very limited in terms of the time spent on the platform (Mean = 4.45, N = 336). Regarding how often respondents use Twitter, 3.6% said they use It always, 1.5% said they use it very often, 9.8% said they use it sometimes, 16.4% said they use it rarely, and 68.8% said they never use It.

Another less popular social media platform is Wikipedia (Mean = 4.31, N = 335). Regarding how often respondents use Wikipedia, 3.6% use it always, 5.7% use it very often, 12.5% use it sometimes, 12.2% rarely use it, and 66% never use it.

According to these findings, Instagram (Mean = 3.49, N = 341) is a moderately used social media platform among senior secondary school students. Regarding how often respondents use Instagram, 17.6% indicated they always use it, 11.4% very often, 18.8% sometimes, 8.5% rarely, and 43.7% never.

The least used social media platform, according to these findings, is LinkedIn (Mean = 4.78, N = 328), with only 10.4% of respondents reporting use, and most do not use it frequently. The majority of respondents, 89.6%, do not use LinkedIn at all. 1.5% said they always use LinkedIn, and another 1.5% said they use it very often. 4% said they use it sometimes, and 3.4% said they use it rarely. This suggests that LinkedIn is generally regarded as a platform for professionals and may not be of significant importance to students, particularly those in secondary school.

In summary, these findings reveal that students in senior secondary schools in Gaborone utilise various social media platforms for diverse purposes and to varying degrees, including Facebook, WhatsApp, YouTube, Instagram, LinkedIn, Wikipedia, Twitter, Snapchat, and TikTok. However, the most frequently used social media platforms are Facebook, WhatsApp and YouTube. This is consistent with Basupi and Mhoziya's (2017) observation of the substantial use of the same three social media platforms at the junior secondary school level in Botswana. These findings suggest that by the time these students are in senior secondary school, social media use increases almost double, but the ranking remains the same, with Facebook being the most used, followed by WhatsApp and then YouTube.

5.4.4. Time spent on social media per day

As shown in Table 5.6, daily social-media use is skewed toward heavier use: “more than 3 hours” (n = 116, 35.0%), followed by 30 minutes–1 hour (n = 83, 25.1%), ≤30 minutes (n = 56, 16.9%), 1–2 hours (n = 51, 15.4%), and 2–3 hours (n = 25, 7.6%) (valid N = 331). The crosstab indicates broadly similar patterns across the four schools, with Naledi Senior Secondary School showing the highest share in the “>3 hours” band. These distributions suggest that a substantial proportion of students spend one hour or more per day on social media despite pre-COVID cellphone restrictions in schools.

Table 5.6: Time spent on social media daily

The amount of time I spend on social media per day per school: Crosstabulation							
			Name of School:				Total
			GSS	Ledumang	Naledi	St Josephs	
The amount of time I spend on social media per day is:	Less than 30 minutes	Count	20	9	11	16	56
		% of Total	6.0%	2.7%	3.3%	4.8%	16.9%
	30 minutes to 1 hour	Count	27	26	11	19	83
		% of Total	8.2%	7.9%	3.3%	5.7%	25.1%
	1 hour to 2 hours	Count	13	11	10	17	51
		% of Total	3.9%	3.3%	3.0%	5.1%	15.4%
	2 to 3 hours	Count	8	4	9	4	25
		% of Total	2.4%	1.2%	2.7%	1.2%	7.6%
	More than 3 hours	Count	27	24	41	24	116
		% of Total	8.2%	7.3%	12.4%	7.3%	35.0%
Total		Count	95	74	82	80	331
		% of Total	28.7%	22.4%	24.8%	24.2%	100.0%

Responding to the amount of time the respondents spend on social media per day, 16.9% (n=56) indicated that they spend less than 30 minutes on social media per day whilst 25.1% (n=83) spend 30 minutes to 1 hour, 15.4% (n=51) spend 1 hour to 2 hours, 7.6% (n=25) spend 2 to 3 hours and 35% (n=116) spend more than 3 hours on social media per day. These findings suggest that most students spend a considerable amount of time on social media each day, with a significant proportion spending one hour or more. These findings are consistent with Basupi and Mhoziya (2017) and Tsholetso, Maunganidze and Faimu (2017), who also noted heavy usage of social media by secondary school students in Botswana; however, ‘addiction’ cannot be inferred from time-use data alone and would require a validated scale and evidence of functional impairment. This trend was consistent for all four schools in Gaborone. This is despite the fact that cellphones were not allowed in the pre-COVID era when this data was collected.

Findings show that of the 16.9% of respondents who spend less than 30 minutes a day on social media, 6% are from GSS, 2.7% attended Ledumang, 3.3% attended Naledi, and 4.8% attended St

Joseph's. These findings reveal differences in time spent on social media across schools, which have implications for monitoring efforts.

5.4.5 Devices used for accessing social media

As shown in Table 5.7, smartphones are by far the primary access device for social media (Mean = 1.57 74.8% “Always”), with much lower routine use of laptops (Mean = 3.51), tablets (Mean = 4.00), and desktop computers (Mean = 4.14); lower means indicate more frequent use on the 1–5 scale (1 = Always ... 5 = Never), and percentages are reported on each device's valid N.

Table 5.7: Devices used to access social media

Devices Used								
I use social media on the following	N	Mean	Std. Dev	Always	Very often	Sometimes	Rarely	Never
smart phone	349	1.57	1.12	74.8	6.9	10.3	2.6	5.4
desktop computer	327	4.14	1.15	4.6	4.0	20.5	15.0	56.0
laptop	332	3.51	1.34	10.5	10.2	31.6	12.7	34.9
tablet	330	4.00	1.29	7.9	5.8	18.5	14.5	53.3

Always=1, Very often=2, Sometimes=3; Rarely=4 and Never=5

Table 5.7 examines the frequency of use of different gadgets for accessing social media, using descriptive statistics. A mean value closer to 1 indicates the participant always used the device for accessing social media ; a value closer to 2.5 indicates they sometimes used it; and a value closer to 5 indicates they rarely use it. Findings (Mean = 1.57, N = 349) show that a large percentage of respondents always use smartphones to access social media. This is not surprising, given that mobile phone penetration has surpassed 100% in Botswana (Statistics Botswana, 2016), and considering the portability and ease of use of this gadget. It is evident that smartphones are the primary medium for social media use among students, and most of them use this medium exclusively. This is evidenced by 74.8% who indicated ‘always’, 6.9% ‘very often’ and 10.3% ‘sometimes’. This result clearly demonstrates that there are very few people in Botswana who do not use smartphones for social media. After smartphones respondents also use laptops, tablets, and desktop computers but these are not commonly used.

Evidence shows that respondents rarely use desktop computers and tablets for social media, with findings of ‘Mean 4.14, N=327’ and ‘Mean 4.00, N=330’, respectively. Most respondents’ students rarely use desktop computers for social media access: only 4.6% indicate they always use desktop computers, 4.0% use them very often, 20.5% use them sometimes, and 15% rarely use them. The largest percentage of respondents, 56%, never use desktop computers. It is evident that very few students access social media on desktop computers, even though schools in Botswana have labs equipped with these platforms. In the pre-pandemic era, students were not encouraged to use social media platforms, and these were blocked on the available computers. The picture may be changing; however, it would take another study to assess the extent to which the COVID-19 pandemic altered device use, platform access, and school-based restrictions on social media.

Whilst the number of students who access a laptop for social media use can be termed moderate (Mean 3.51, N = 332), the actual extent of use is relatively low, as most of those who agreed to using it do so either sometimes or rarely. Of these, 10.5% indicated that they always use a laptop, 10.2% use it very often, 31.6% use a laptop sometimes, 12.7% rarely use a laptop, and 34.9% never use a laptop to access social media.

With regards to the use of a tablet to access social media (Mean 4.00, N=330), 7.9% indicated that they always use a tablet to access social media, whilst 5.8% very often use it, 18.5% use it sometimes, 14.5% rarely use it, and 53.3% never use a tablet to access social media. These findings reflect that the respondents do not commonly use tablets.

These findings suggest that most respondents use smartphones to access social media, and only a very small percentage do not use smartphones for this purpose. From this study, it is also evident that the respondents sometimes use their laptops to access social media (Mean 3.51, N=332)

5.4.6 Locations where social media is used

The results of this study show that more than 90% of respondents use social media at home (Mean = 1.41, N = 346), with 82.7% confirming that they use it constantly, 5.8% very often, and 5.2% sometimes. Only 0.9% use it rarely, and 5.5% say they never use it. Because phones, which are also the primary means of accessing social media, are not allowed at school, 70% of

respondents reported never using social media at school, with a mean of 4.35 (N=320). Although the proportion of people using social media is minimal at school, probably just using it to contact parents about pick up times and others, it is noteworthy and of concern that although there is a small percentage of respondents using social media at school, there are a few of these 6.9% who say they are always using it. It leaves one wondering how much time they spend concentrating on their studies.

Table 5.8: Location from which social media platforms are used

Location from which social media is used								
	N	Mean	Std. Dev	Always	Very often	Sometimes	Rarely	Never
I use social media at school	320	4.35	1.17	6.9	1.3	11.9	10.0	70.0
I use social media at home	346	1.41	1.03	82.7	5.8	5.2	0.9	5.5
I use social media at the internet cafe	325	3.94	1.24	7.1	4.3	24.9	14.8	48.9
I use social media at a friend's place	326	3.19	1.32	15.1	10.1	39.3	11.7	23.9
I use social media in other places	15	4.40	1.18	6.7	0.00	13.3	6.7	73.3

Internet cafes are also an indispensable part of the social media revolution, especially since those who cannot afford to buy gadgets can visit the nearest internet café to access social media platforms for various purposes, such as homework, marketing, selling, news, and more. The number of people who do not afford gadgets though has dwindled over the years as shown by the small number of respondents using them (Mean 3.94, N=325) with almost half of the respondents making up 48.9% saying they never use internet cafes for social media, 7.1% saying they always use it, 4.3% using it very often, 24.9% sometimes using it and 14.8% rarely using internet cafes.

Respondents were asked to specify any other places they use social media apart from the ones listed above. They cited churches, relaxation parks or gardens, shopping malls, parties, shops, with friends, streets, buses, kombis, clinics, hospitals, libraries, at events and festivals, restaurants, when travelling, and even in toilets. Their responses help expose how pervasive social media has become, accessible from anywhere and at any time.

5.4.7 Using social media to communicate with the teachers and parents

To understand the channels through which ethical guidance may occur, this section assesses students' social media communication with teachers and parents. Responses were recorded on a five-point scale (1 = Always; 2 = Very often; 3 = Sometimes; 4 = Rarely; 5 = Never) and are presented as percentages and descriptive statistics. These indicators help situate later interpretations about where learners are most likely to receive support when navigating online dilemmas.

Table 5.9: Frequency of Communication with Teachers and Parents through social media

Communication with teachers and parents								
	N	Mean	Std. Dev	Always	Very often	Sometimes	Rarely	Never
I communicate through social media with my teacher	339	4.28	1.16	5.0	3.5	15.9	9.1	66.4
I communicate through social media with my parents	346	3.29	1.52	19.4	11.8	24.3	9.5	35.0

Table 5.9 reveals notable differences in the frequency with which students communicate with teachers and parents via social media. The mean score for communication with teachers was relatively high ($M = 4.28$, $SD = 1.16$), indicating infrequent interaction. Indeed, a significant 66.4% of respondents reported never communicating with their teachers through social media, while only 5% reported doing so 'always', and a mere 3.5% said 'very often'. In contrast, communication with parents via social media was comparatively more frequent ($M = 3.29$, $SD = 1.52$), though still moderate. Here, 19.4% of students reported 'always' engaging with parents, 11.8% 'very often', and 24.3% 'sometimes', whereas 35% reported 'never' doing so. These findings reflect a broader trend observed throughout the study—that parental involvement in students' digital lives surpasses that of teachers, likely due to both institutional restrictions and cultural norms.

The high proportion of students who never communicate with their teachers online may be attributed to school policies prohibiting phone and social media use, as well as the absence of structured digital engagement frameworks. Conversely, while communication with parents is more common, it still reflects limitations in active guidance or monitoring of students' online

activities. The findings underscore the need for formalised channels of ethical guidance, both within families and educational settings, to support students as they navigate the complex ethical terrain of social media.

5.4.7.1. Using social media to communicate with the teacher

Regarding whether respondents communicate with the teacher on social media, 5% said they always do, 3.5% said they do so very often, 15.9% said they sometimes do, 9.1% said they rarely do, and 66.4% said they never do. These findings, presented as a mean of 4.28 (N=339), reflect that most respondents do not communicate with their teachers on social media. It is essential to note that this was the case in the pre-COVID pandemic era, and studies should be conducted to determine how this is evolving currently. This can be related to the fact that students were not allowed to use phones and social media at school. However, there are a few who use social media to communicate with their teachers during this time.

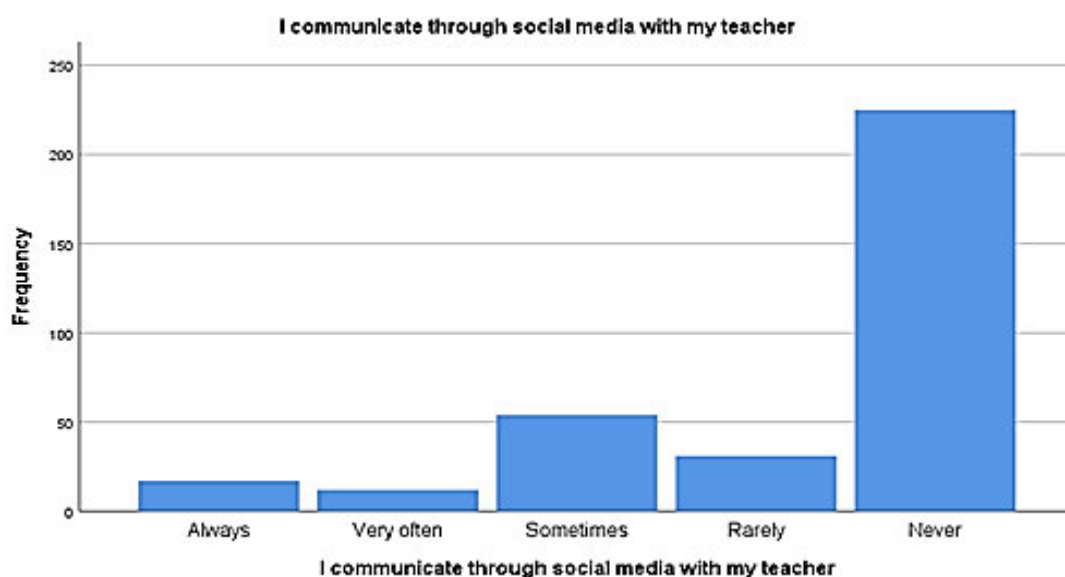


Figure 5.4: Communication with the teacher on social media

5.4.8 Social media communication with parents

Comparatively, results show that students communicate more with parents than with teachers on social media. Regarding their communication with parents, 19.4% indicated that they always use social media to communicate with their parents, while 11.8% indicated that they communicate very often, 24.3% indicated that they sometimes do, 9.5% said rarely, and 35.0% indicated that

they never communicate with their parents on social media. These findings suggest that, to a moderate extent, respondents communicate with their parents on social media.

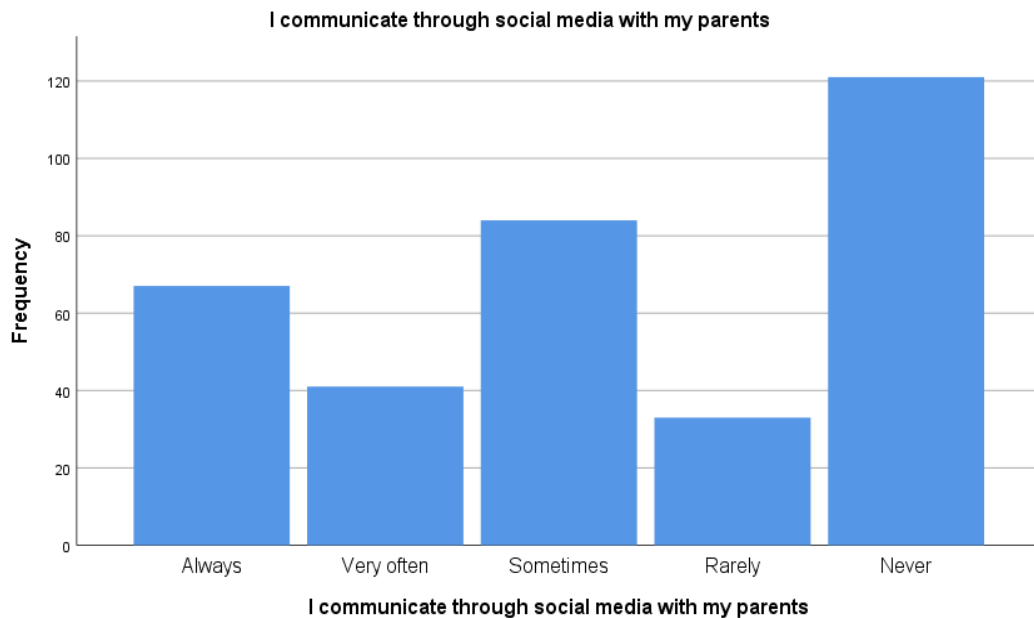


Figure 5.5: Social media communication with parents

5.4.9. Multiple account holding on a single social media platform

To illuminate how adolescents curate their online identities and manage audience boundaries, this section examines the use of multiple accounts across popular platforms. Respondents rated agreement with the statement “I have more than one account/profile on [platform]” (SA, A, N, DA, SDA). The percentage agreeing (SA/A) and the item means (lower means = higher agreement) with standard deviations are presented. These indicators help situate later discussions about privacy practices, accountability, and the contexts in which ethical dilemmas may arise.

It is evident that respondents have more than one profile on a single social media platform including Facebook (Mean 3.18, N=347), Twitter (Mean 4.56, N=331), Wikipedia (Mean 4.65, N=330), LinkedIn (Mean 4.67, N=324), WhatsApp (Mean 3.74, N=342), YouTube (Mean 4.18, N=331) and Instagram (Mean 4.18, N=334) which were listed in the questionnaire and others they highlighted themselves like Snap chat, Tiktok. People do it for different reasons, such as the need to separate accounts for different interests, like business and social, or the need to hide their identities, as for those who have them under different names.

Table 5.10: Frequency of multiple social media accounts

Social Media Accounts								
	N	Mean	Std. Dev	SA	A	N	DA	SDA
I have more than one account/profile on Facebook	347	3.18	1.61	22.8	20.5	5.8	17.9	33.1
I have more than one account/profile on Twitter	331	4.56	0.89	2.1	3.9	3.0	18.1	72.8
I have more than one account/profile on Wikipedia	330	4.65	0.80	2.1	1.8	2.1	17.3	76.7
I have more than one account/profile on LinkedIn	324	4.67	0.75	1.5	1.5	3.1	16.4	77.5
I have more than one account/profile on WhatsApp	342	3.74	1.46	12.6	12.6	8.8	20.2	45.9
I have more than one account/profile on YouTube	331	4.18	1.22	6.3	6.6	8.2	19.9	58.9
I have more than one account/profile on Instagram	334	4.18	1.26	6.9	8.1	6.6	16.8	61.7

SA=Strongly Agree; A=Agree; N=Neutral; DA=Disagree; SDA=Strongly Disagree

The latter seems likely for students in senior secondary school, so that they are not identified by others, especially teachers, parents, family, or people they insult on social media platforms like Facebook. These findings suggest that some of the respondents have more than one account or profile on Facebook. Out of the responses, 43.3% said they had more than one account on this social media platform.

On Twitter, 6.0% of respondents acknowledged having more than one account. Similarly, on Wikipedia, 3.9% reported having more than one account or profile. These findings suggest that very few respondents have more than one Wikipedia account or profile. Additionally, on LinkedIn, 3% indicated that they have more than one account.

On WhatsApp, 25.2% reported having more than one account. These findings suggest that they have more than one account or profile on WhatsApp. Moreover, on YouTube, 12.9% reported having more than one account. These findings suggest that the respondents rarely have more than one account or profile on YouTube. On Instagram, 16.2% reported having more than one

account. These findings suggest that, to a rare extent, respondents have more than one account or profile on Instagram. These results show that, while it's common on Facebook to have more than one account for different reasons, it's rare on other platforms such as LinkedIn, Wikipedia, Twitter, and others.

5.4.10 Reasons respondents use social media

To situate students' ethical decision-making within everyday practice, this section analyses how frequently learners use social media for various purposes, including entertainment, connecting with friends and family, meeting new people, schoolwork, news/current affairs, downloading media/software, and purchasing/marketing. Responses were recorded on a five-point frequency scale (Always–Never). Presenting the full distribution for each item enables the identification of dominant use cases that may shape exposure to online dilemmas and opportunities for guidance.

Table 5.11: Descriptive frequencies of social media use

Reasons for using social media	Always	Very often	Sometimes	Rarely	Never
Get entertainment	N=193(57.3%)	N=54 (16%)	N=67(19.9%)	N=7 (2.1%)	N16(4.7%)
Meet new people	N=114 (33.8%)	N=40 (11.8%)	N=93 (27.5%)	N=50(14.8%)	N=41(12.1%)
Connecting with friends and family	N=205(59.5%)	N=59(17.1%)	N=48(13.9%)	N=15(4.3%)	N=18(5.2)
Marketing my products	N=23(6.9%)	N=16(4.8%)	N=36(10.9%)	N=34(10.3%)	N=222(67.1%)
School work	N=83(24.4%)	N=65(19.1%)	N=126(37.4%)	N=32(9.4%)	N=33(9.7%)
Buying stuff	N=23(6.8%)	N=25(7.4%)	N=39(11.6%)	N=48(14.3%)	N=201(59.9%)
Downloading music	N=167(49.1%)	N=52(15.3%)	N=60(17.6%)	N=22(6.5%)	N=39(11.5%)
News and current affairs	N=126(37.3%)	N=42(12.4%)	N=75(22.2%)	N=35(10.4%)	N=60(17.7%)
Downloading software	N=73(21.7%)	N=41(12.2%)	N=71(21.1%)	N=34(10.1%)	N=117(34.9%)

Note. Items were rated on a five-point frequency scale (Always, Very often, Sometimes, Rarely, Never). Ns vary by item due to occasional non-response; percentages may not total 100% because of rounding. Platform names follow the questionnaire wording; where relevant, "Twitter" refers to Twitter/X.

Table 5.11 presents the descriptive frequencies of respondents' reasons for using social media. The data indicate that social media use among students in senior secondary schools in Gaborone

is diverse, with clear preferences for entertainment and communication. Most respondents reported using social media primarily for entertainment, with 57.3% (n =193) indicating they always do so, 16.0% (n = 54) very often, 19.9% (n = 67) sometimes, 2.1% (n = 7) rarely, and 4.7% (n = 16) never. This finding shows that social media serves as a dominant recreational outlet for students.

A considerable proportion of respondents also reported using social media to meet new people. Specifically, 33.8% (n = 114) reported always using it for this purpose, 11.8% (n = 40) very often, 27.5% (n = 93) sometimes, 14.8% (n = 50) rarely, and 12.1% (n = 41) never. These figures suggest that, while forming new connections online is moderately common, it is not a dominant motivation for most users. The majority of students indicated that they use social media to connect with friends and family, with 59.5% (n = 205) reporting always, 17.1% (n = 59) very often, 13.9% (n = 48) sometimes, 4.3% (n = 15) rarely, and 5.2% (n = 18) never. This highlights the social role of these platforms in fostering interpersonal relationships.

A smaller but noteworthy proportion of respondents reported using social media for schoolwork, with 24.4% (n = 83) saying always, 19.1% (n = 65) very often, 37.4% (n = 126) sometimes, 9.4% (n = 32) rarely, and 9.7% (n = 33) never. This finding suggests that while social media has educational potential, its use for school-related activities appears to be sporadic and often unsupervised. Regarding downloading music, 49.1% (n = 167) of respondents always engage in this activity, 15.3% (n = 52) very often, 17.6% (n = 60) sometimes, 6.5% (n = 22) rarely, and 11.5% (n = 39) never. These results highlight that music downloading is among the most popular social media activities for this group.

When asked about using social media for news and current affairs, 37.3% (n = 126) reported 'always', 12.4% (n = 42) very often, 22.2% (n = 75) sometimes, 10.4% (n = 35) rarely, and 17.7% (n = 60) never. This suggests that social media also serves an informational purpose, keeping students informed about local and global issues. The use of social media for downloading software was less prevalent, with 21.7% (n = 73) reporting 'always', 12.2% (n = 41) very often, 21.1% (n = 71) sometimes, 10.1% (n = 34) rarely, and 34.9% (n = 117) never. This moderate engagement reflects more selective or occasional use of social media for technological purposes.

Regarding online purchases, a majority of respondents reported limited engagement. Only 6.8% (n = 23) said they always buy through social media platforms, 7.4% (n = 25) very often, 11.6% (n = 39) sometimes, 14.3% (n = 48) rarely, and 59.9% (n = 201) never. Thus, most students do not use social media for commercial purchases. Similarly, the use of social media for marketing personal products was minimal. Only 6.9% (n = 23) of respondents always used it for marketing, 4.8% (n = 16) very often, 10.9% (n = 36) sometimes, 10.3% (n = 34) rarely, and 67.1% (n = 222) never. This pattern demonstrates that entrepreneurial engagement through social media is uncommon among secondary school learners.

When asked what other purposes they use social media for, most of the open-ended responses aligned with the categories above, including chatting with friends, reading memes, contacting teachers, uploading photos and videos, participating in group work, exploring new places, playing games, refreshing the mind, and sharing homework or notes; however, a few respondents disclosed using social media to access pornographic material, hack other users' accounts, or troll others—activities that raise ethical concerns and underline the need for digital citizenship education. Overall, the findings reveal that entertainment, social connection, and music downloading are the primary uses of social media among students, while academic and entrepreneurial uses remain limited. These patterns have implications for promoting more purposeful and ethical engagement with digital platforms in school settings.

5.4.11 Chi-tests on reasons for using social media

To move beyond descriptive frequencies, this section examines whether particular activities co-occur with the frequency of learners' social media use. We therefore apply Pearson chi-square tests to each activity item, reporting the test statistic, effect size (Phi), p-value, assumption checks, and valid cases. Significant results indicate that the activity's response pattern differs across usage-frequency categories; Phi quantifies the strength of any association.

Table 5.12 presents the results of Chi-square tests conducted to examine the relationship between different reasons for using social media and the frequency of social media use. Across activities, most associations are small in magnitude ($\Phi \leq .26$). Statistically significant associations were observed for meeting new people ($\chi^2=10.12$, $\Phi=.18$, $p=.039$), downloading music ($\chi^2=11.58$, $\Phi=.19$, $p=.021$), and downloading software ($\chi^2=21.07$, $\Phi=.26$, $p=.001$). Items such as 'buying stuff', 'schoolwork', and 'news/current affairs' showed no significant association with frequency

($p \geq .08$). The test for entertainment was non-significant ($p = .974$) and flagged with many sparse cells (20 with expected counts < 5), so the result should be interpreted cautiously.

Table 5.12: Chi-square tests - reasons for using social media

Activity	Pearson Chi-square	Effects Size	Significance level	Cells with expected count < 5	Valid Cases
		Phi			
Get entertainment	0.493	0.039	0.974	20	324
Meet new people	10.116	0.176	0.039	0	326
Connecting with friends and family	4.515	0.117	0.055	0	332
Marketing my products	9.427	0.172	0.051	0	318
School work	5.514	0.130	0.238	0	328
Buying stuff	8.347	0.161	0.080	0	323
Downloading music	11.576	0.188	0.021	0	327
News and current affairs	5.114	0.125	0.276	0	326
Downloading software	21.071	0.255	0.001	0	323

5.4.12 Use of social media by gender

The Chi-square is used in this section to provide information on i) the association between the activity for using social media and gender, ii) whether male participants are more likely to use social media for a particular activity compared to females, and iii) whether the proportion of males that use social media for a specified activity is the same as that of females. The test is applied to all items that measure the specific activity of using social media. To check whether the chi-square test assumptions were violated, the minimum expected cell frequency was examined; it should be at least 80% of the cells with the expected value. In this case, all the values show that the assumption was not violated, as all the expected cell sizes are greater than 5 or at least 80%. The Phi coefficient is used to assess effect size and interpret results according to Cohen's (1988)

criteria: 0.10 indicates small effects, 0.30 indicates medium effects, and 0.50 indicates large effects.

The results show that the value of the Pearson chi-square is 0.493, with an associated significance level (p-value) of 0.974 regarding social media use for entertainment. Findings indicate that the proportion of male students who use social media for entertainment purposes is not significantly different from that of females. There is no association between using their entertainment status and gender. Based on the phi coefficient, the usage of social media for entertainment shows small effects.

Values with 5% and below indicate that the proportion of males and females is significantly different, e.g., there is a significant association between gender and using social media for meeting new people. The proportion of males using social media to meet new people is significantly different from that of females. Gender has an impact on social media. The effects are minor since they are less than 0.30.

To align the chi-square findings with the study's ethical focus, significant associations (e.g., meeting new people, downloading music/software) point to differential exposure to privacy/safety risks and copyright/security issues; guidance should therefore include safe-contact practices, lawful media/software use, and data-protection habits, with light gender-tailoring where engagement is higher. Pearson's chi-square tests the association between categorical variables; assumptions were met ($\geq 80\%$ of cells with expected counts ≥ 5 ; none < 1). Effect sizes use Cohen's (1988) criteria ($\Phi \approx 0.10$ small, $\Phi \approx 0.30$ medium, $\Phi \approx 0.50$ large); significance at $p \leq .05$.

5.4.13 Use of social media for schoolwork

To identify areas where responsible digital practices could be reinforced, this subsection examines the academic uses of social media—such as homework help, peer discussion, educational videos, study groups, and teacher contact—rated on a five-point frequency scale (Always–Never). Presenting the full distribution for each item helps identify common academic touchpoints and gaps (e.g., limited teacher–learner contact) that matter for digital citizenship.

Overall, learners most frequently use social media for homework and educational videos, with peer group discussions also common at 'Sometimes'. By contrast, study groups, especially

communication with teachers, cluster at 'Rarely/Never', suggesting missed opportunities for structured academic support and ethically guided online engagement.

Table 5.13: Use of social media for schoolwork

	Always	Very often	Sometimes	Rarely	Never
Homework	N=116(34%)	N=52(15.2%)	N=107(31.4%)	N=25(7.3%)	N=41(12%)
Group discussions with classmates	N=69(20.5%)	N=38(11.3%)	N=112(33.3%)	N=49(14.6%)	N=68(20.2%)
Watching educational videos	N=85(25.1%)	N=43(12.7%)	N=105(31.1%)	N=41(12.1%)	N=64(18.9%)
Study groups	N=45(13.2%)	N=25(7.4%)	N=83(24.4%)	N=43(12.6%)	N=144(42.4%)
Communicating with teachers	N=21(6.2%)	N=23(6.8%)	N=44(13%)	N=49(14.5%)	N=201(59.5%)

This table cross-tabulates schoolwork-related activities on social media by gender across five frequency categories (Always, Often, Sometimes, Rarely, Never). Presenting the full distribution for homework, group discussions with classmates, watching educational videos, study groups, and communicating with teachers allows us to see where usage patterns converge or diverge between males and females before turning to the chi-square tests.

Table 5.14: Cross tabulation: Use of social media for schoolwork

Activity	Pearson Chi-square	Effects Size	Significance level	Cells with expected count < 5	Valid Cases
		Phi			
Homework	6.723	0.144	0.151	10	323
Group discussions with classmates	8.444	0.163	0.057	0	318
Watching educational videos	2.329	0.085	0.675	0	320
Study groups with students from other schools	4.849	0.123	0.303	10	322
Communicating with teachers	3.897	0.110	0.420	20	320

Overall patterns are broadly similar across genders, with the highest frequencies clustered around homework and educational videos, while teacher communication remains low for both groups. Any visible differences in group discussions appear small, aligning with the later chi-square result that approached (but did not reach) significance. Practically, this suggests inclusive (non-

gender-specific) ethical guidance for academic use, with a light emphasis on privacy and respectful collaboration in group chats.

A significant association exists between gender and the use of social media for group discussions with classmates. The proportion of males using social media for group discussions with classmates differs significantly from that of females.

Table 5.15 cross-tabulation is linked to the significant value above to show the proportions of males versus females.

Table 5.15: Cross tabulation: Use of social media for group discussions

Crosstabulation								
			When I use social media for schoolwork, I mainly use it for Group discussions with classmates					
			Always	Very often	Sometimes	Rarely	Never	
Age of respondents	18 years	Count	51	31	82	35	62	261
		% of Total	16.0%	9.7%	25.8%	11.0%	19.5%	82.1%
	Above 18 years	Count	14	7	21	11	4	57
		% of Total	4.4%	2.2%	6.6%	3.5%	1.3%	17.9%
Total		Count	65	38	103	46	66	318
		% of Total	20.4%	11.9%	32.4%	14.5%	20.8%	100.0%

These findings suggest that most respondents use social media for schoolwork, primarily for homework. Respondents were asked to specify their use of social media for schoolwork, and 34% indicated that they always use it for homework, while 15.2% use it very often for that purpose, 31.4% use it sometimes, and 7.4% rarely use it. A small percentage of respondents, 12%, reported never using it for homework. In addition, 20.5% mainly use social media for group discussions with classmates, while 11.3% use it very often for that purpose, 33.3% use it sometimes, 14.6% rarely use it, and 20.3% never use social media for group discussions. These

findings suggest that many respondents use social media for schoolwork, primarily for group discussions.

Regarding educational videos, 25.1% said they always watch them on social media, 12.7% watch them very often, 31.1% watch them sometimes, 12.1% rarely watch them, and 18.9% never do. This evidence suggests that watching educational videos also provides significant motivation for students in senior secondary schools in Gaborone to use social media.

Within this group, indications suggest that respondents use social media to a moderate extent for schoolwork and to form study groups. Results suggest that 13.2% always use social media for study groups, while 7.4% say they very often use it for this purpose. Additionally, 24.4% said they sometimes use social media for study groups, 12.6% said they rarely do, and 42.4% said they never use social media for this purpose.

The results suggest that there is very little interaction between students and teachers in this regard. Concerning their communication with teachers, 6.2% always use social media for that purpose, while 6.8% very often use it, 13% sometimes use it, and 14.5% said they rarely communicate with teachers. A significant proportion, 59.5%, alluded to the fact that they never use social media to communicate with teachers. This may suggest that although a substantial proportion of students use social media for their schoolwork, much of this is done independently and between students, excluding teachers.

In summary, these findings suggest that when students use social media for schoolwork, they primarily use it for homework, watching educational videos, and participating in group discussions with classmates. A few also use social media for study groups and communicating with teachers.

Furthermore, the respondents indicated that, in addition to the schoolwork outlined above, they also use social media to review past examination papers, learn about the performance of other schools so they can measure themselves against them, obtain revision materials, information on syllabi, study methods, and research projects. These responses suggest that the respondents are aware of how to utilise social media for educational purposes.

5.5 Ethical issues and dilemmas experienced by students on social media

Respondents were asked how often they faced specific challenges associated with social media use. As shown in Table 5.37 (Likert 1–5: Always, Very Often, Sometimes, Rarely, Never), students most frequently report encountering hidden identities (“people hiding their true names”: 44.0% Always, 16.9% Very often), fake news/misinformation (28.6% Always, 19.5% Very often), difficulty understanding some languages (20.2% Always, 17.8% Very often), and self-reported “addiction to social media” (29.6% Always, 10.1% Very often). Row percentages are calculated per item and therefore sum to 100% within each challenge; per-item valid Ns are shown in Table 5.16.

Table 5.16: Challenges experienced when using social media

	Always	Very often	Sometimes	Rarely	Never
Bullying	N=17(5.1%)	N=17(5.1%)	N=28(8.4%)	N=34(10.2%)	N=236(71.2%)
Inappropriate materials including pornography	N=34(10.1%)	N=24(7.1%)	N=95(28.1%)	N=53(15.7%)	N=132(39%)
Hate speech	N=46(13.7%)	N=32(9.5%)	N=73(21.7%)	N=60(17.9%)	N=125(37.2%)
Hacking	N=22(6.5%)	N=21(6.2%)	N=55(16.4%)	N=47(13.9%)	N=192(57%)
Trolling	N=11(3.4%)	N=15(4.7%)	N=31(9.7%)	N=35(10.9%)	N=228(71.3%)
Fake news/incorrect information/misinformation	N=97(28.6%)	N=66(19.5%)	N=83(24.5%)	N=27(8%)	N=65(19.4%)
Failure to understand some languages	N=68(20.2%)	N=60(17.8%)	N=114(33.8%)	N=44(13.1%)	N=51(15.1%)
Stalking	N=82(24.4%)	N=44(13.1%)	N=70(20.8%)	N=46(13.7%)	N=94(28%)
Addiction to social media	N=100(29.6%)	N=34(10.1%)	N=65(19.2%)	N=33(9.8%)	N=106(31.3%)
People using my information and images without permission	N=51(15%)	N=21(6.2%)	N=62(18.2%)	N=48(14.1%)	N=159(46.5%)
Plagiarism	N=15(4.7%)	N=18(5.7%)	N=30(9.5%)	N=42(13.3%)	N=211(66.8%)
People hiding their true names and identities	N=151(44%)	N=58(16.9%)	N=71(20.7%)	N=23(6.7%)	N=40(11.7%)

The biggest challenge respondents face in social media use is the issue of people hiding their true names and identities, with 44% stating it always happens, 16.9% saying it happens very often, 20.7% saying it happens sometimes, and 6.7% saying it rarely happens. Only 11.7% reported never experiencing this. These findings suggest that most respondents have, to a greater extent, experienced people hiding their true names and identities on social media. Another major

challenge was the failure to understand some materials, which were posted in languages. As 20.2% of respondents reported that it always happened, 17.8% said it happened very often, 33.8% said it sometimes happened, 13.1% said it rarely happened, and 15.1% said it never happened to them.

The respondents also indicated that they experienced fake news/incorrect information/misinformation largely, with 28.6% saying it happened always, 19.5% saying it happened very often, 24.5% saying it happened sometimes, 8% saying it rarely happened, and 19.4% saying it never happened to them. These findings suggest that a large proportion, 80.6% of the respondents, have received or experienced fake news and misinformation. As many as 72% of the respondents indicated that they have experienced stalking, with 24.4% saying it always happens, 13.1% saying it happens very often, 20.8% saying it sometimes happens, 13.7% saying it rarely happens, and 28% saying it never happens to them. These findings indicate that the respondents have experienced stalking largely on social media.

Cyberbullying is also a problem experienced by high school students in Gaborone, Botswana. Cyberbullying is the intentional use of any digital medium, including text messaging, email and phone calls to harm others (Palfrey & Gasser, 2016). These findings reflect that a small proportion of the respondents experienced cyberbullying when they were using social media. Of these respondents, 5.1% indicated that they experienced bullying, while another 5.1% reported experiencing it very often, 8.4% reported experiencing it sometimes, 10.2% reported experiencing it rarely, and 71.2% indicated that they rarely experienced bullying when using social media.

Another challenge faced by the respondents is the existence of inappropriate materials on social media. Results suggest that 10.1% of the respondents indicated that they experienced inappropriate materials, including pornography, whilst 7.1% very often experienced the same issue, 28.1% sometimes experienced this problem, 15.7% rarely did, and 39% never experienced the problem. These findings suggest that, to a lesser extent, the respondents experienced inappropriate materials, including pornography, when using social media. It is interesting to note that when young people encounter inappropriate materials on social media, it may be because they are actively seeking them out or have accidentally stumbled upon them. Furthermore, it is usually not fruitful to try to determine who does it intentionally, as young people would be

ashamed to admit it and would most likely lie about it, rendering most research on this aspect unreliable (Palfrey & Gasser, 2016).

Hate speech is another challenge that students face when using social media. More than 60% of respondents reported experiencing hate speech, with 13.7% indicating that they always experienced it, 9.5% experiencing it very often, 21.7% experiencing it sometimes, 17.9% rarely experiencing it, and 37.2% reporting never experiencing hate speech when using social media. These findings suggest that, to a lesser extent, respondents encountered hate speech while using social media.

Additionally, 6.5% always experienced hacking, 6.2% indicated that they very often experienced it, 16.3% experienced it sometimes, 13.9% rarely experienced it, and 57% never experienced hacking. This suggests that, to a lesser extent, the respondents experienced hacking when using social media.

Regarding trolling, 3.4% indicated that they had experienced it, 4.7% reported that it happens very often, 9.7% said it sometimes happens, 10.9% said it rarely happens, and 71.3% stated that it has never happened to them. This suggests that a smaller proportion of respondents experienced trolling while using social media.

Basupi and Mhozya (2017) and Tsholetso et al. (2017) observed heavy social media usage by young people in Botswana. The results of this study show evidence consistent with their findings. Some of the respondents indicated that they are hooked on social media, with 29.6% saying they always experienced addiction to social media, 10.1% saying it happened very often, 19.2% saying it happens sometimes, 9.8% saying it rarely happens, and 31.3% saying it never happens to them. These findings suggest that the respondents have experienced addiction largely on social media.

Another problem respondents indicated was that people have been using their information and images they post on their social media pages without permission. Specifically, 15% said it always happens, 6.2% said it happens very often, 18.2% said it sometimes happens, and 14.1% said it is a rare experience. Of these respondents, 46.5% reported that it had never happened to them. Although these findings indicate that most respondents have not experienced plagiarism on social media, a considerable number of respondents have. Of these respondents, 4.7% acknowledged

that they always experienced it, while 5.7% said it happened very often, 9.5% said it sometimes happened, 13.3% said it happened rarely, and 66.8% said it never happened to them.

In summary, the respondents have largely experienced people hiding their true names and identities, followed by fake news/incorrect information/misinformation, failure to understand some languages and addiction to social media. In addition, stalking, inappropriate materials including pornography, hate speech, people using my information and images without permission, hacking, plagiarism, bullying, and trolling were the least experienced.

The respondents listed other challenges they have experienced when using social media, including people posting the respondents' results on their status, fraudulent people and gay men trying to approach the respondents, violent videos and xenophobia and racism. The respondents added that they have experienced threats, including messages from strangers containing derogatory comments about other people, and that individuals have used the respondents' identities to make offensive remarks to others. In addition, the respondents have also experienced people selling fake products to steal money, insults, poking, irritating videos and chats, and people discriminating against others, as well as vulgar language. However, some respondents were confident in saying that they had not experienced any challenges on social media.

Table 5.16 examines the relationship between gender and challenges experienced while using social media. There are both significant and insignificant differences. Any probability of 0.05 and below is significant. The results indicate a significant relationship between gender and the issue of hacking in the social media landscape, as evidenced by a Pearson Chi-square of 9.842 and a p-value of 0.043. Tests show that more males are involved in hacking activities than females. The same applies to stalking and the issue of people using information and images without permission, as well as plagiarism and hiding true names and identities. There was no significant relationship between gender and issues of bullying, posting of inappropriate materials, including pornography, hate speech, trolling fake news/misinformation, failure to understand some languages and social media addiction.

5.5.1 Chi-tests - Social media issues

As shown in Table 5.17, Chi-square tests were used to assess associations between gender and each social-media issue ($\alpha = .05$). Significant associations were observed for hacking ($\chi^2 = 9.842$, $p = .043$, $\Phi = .174$), stalking ($\chi^2 = 12.125$, $p = .016$, $\Phi = .193$), unauthorised use of personal

information/images ($\chi^2 = 12.265$, $p = .015$, $\Phi = .193$), plagiarism ($\chi^2 = 12.610$, $p = .013$, $\Phi = .203$), and hidden identities ($\chi^2 = 12.376$, $p = .015$, $\Phi = .194$), indicating small-to-approaching-moderate effects. Non-significant results ($p > .05$) for bullying, inappropriate materials, hate speech, trolling, fake news/misinformation, language barriers, and self-reported ‘addiction’ indicate no detectable gender differences on those items. Assumptions were met for all tests except fake news/misinformation, where 16.7% of cells had expected counts < 5 ; this row should be interpreted cautiously. Valid Ns per test are reported in Table 5.17.

Table 5.17: Chi-tests- Social media issues

Activity	Pearson Chi-square	Effects Size [Phi]	Significance level	Cells with expected count < 5	Valid Cases
Bullying	3.022	0.097	0.554	0	319
Inappropriate materials including pornography	6.075	0.137	0.194	0	325
Hate speech	7.092	0.148	0.131	0	325
Hacking	9.842	0.174	0.043	0	324
Trolling	3.426	0.105	0.489	0	309
Fake news/misinformation	8.717	0.163	0.121	16.7	327
Failure to understand some languages	1.742	0.073	0.783	0	325
Stalking	12.125	0.193	0.016	0	324
Addiction to social media	5.536	0.131	0.237	0	325
People using my information and images without permission	12.265	0.193	0.015	0	328
Plagiarism	12.610	0.203	0.013	0	305
People hiding their true names and identities	12.376	0.194	0.015	0	330

Table 5.17 presents the results of Chi-square tests examining the association between gender and various challenges experienced on social media. A p-value below 0.05 indicates a statistically significant difference between males and females.

Statistically significant associations were found for:

1. Hacking ($p = 0.043$)
2. Stalking ($p = 0.016$)
3. Use of personal information without permission ($p = 0.015$)
4. Plagiarism ($p = 0.013$)
5. Hiding of true identity ($p = 0.015$)

These results suggest that gender plays a role in how students experience these specific challenges, with small to moderate effect sizes (Phi values ranging from 0.17 to 0.20). Non-significant results ($p > 0.05$) for bullying, inappropriate materials, hate speech, trolling, fake news, language barriers, and social media addiction indicate no meaningful gender differences for those experiences. All assumptions for Chi-square tests were met, as there were no cells with expected counts less than 5.

5.6 Ethical dilemmas faced using social media by the respondents

As shown in Table 5.18, learners frequently report encountering ethical trade-offs on social media: the highest “Always” endorsements are for Botho vs. human rights (58.1%), preserving privacy vs. access to information (51.5%), free speech vs. dignity (48.0%), and access to information vs. safety/security (48.2%). Lower, but still substantial, shares report dilemmas involving school rules vs. free expression (32.3%) and property rights vs. access to information (35.7%). These patterns suggest that students often encounter conflicts between two justifiable actions, rather than straightforward right–wrong choices.

Table 5.18: Ethical dilemmas faced by the students when using social media

	Always	Very often	Sometimes	Rarely	Never
School rules or human rights of free speech and expression	32.3%	15.5%	28.7%	9.8%	13.7%
Upholding my rights to free speech and respecting someone's dignity	48%	17.2%	16%	7.4%	11.4%
Respecting and upholding the right to access information and ensuring safety and security	48.2%	16.9%	19.9%	6.1%	8.9%
Property rights and freedom of access to information	35.7%	14.3%	27.6%	6.8%	15.6%
Preserving privacy and respecting right to access of information	51.5%	15.4%	18.3%	4.9%	9.9%
The values of Botho and human rights	58.1%	11%	15.3%	3.4%	12.2%

Respondents were asked to indicate whether they had experienced ethical dilemmas and to rate, on a Likert scale, those they had specifically experienced and to what extent. Most of them acknowledged that they experience ethical dilemmas as they navigate the social media landscape. Dilemmas related to respecting and upholding the right to access information, while ensuring safety and security, were experienced by the largest group of respondents in varying degrees. A significant number of respondents, 48.2%, reported always experiencing dilemmas related to this, while 16.9% said they do so very often, 19.9% sometimes experience this dilemma, and 6.1% rarely experience it. A smaller proportion, 8.9%, mentioned that they have never experienced dilemmas related to protecting and upholding the right to access information and the right to ensure their own safety and security, as well as the safety and security of others.

A very significant proportion of these respondents also acknowledged that they experienced dilemmas that required them to choose between protecting their own privacy and that of others, and respecting and protecting the right to access information. Regarding the preservation of privacy and respect for the right to access information, 51.5% indicated that they always do so, 15.4% said they do so very often, 18.3% said they do so sometimes, 4.9% said they rarely do so, and 9.9% never do so. These findings suggest that, to a great extent, respondents usually choose

between two conflicting actions, including the choice between preserving privacy and respecting the right to access information.

Regarding ethical dilemmas that involve choosing between upholding school rules and human rights, such as free speech and freedom of expression, 32.3% of the respondents reported experiencing these dilemmas always, 15.5% said they occurred very often, 28.7% said they sometimes occurred, and 9.8% said they rarely occurred. A small fraction, 13.7%, have never experienced dilemmas relating to school rules versus the need to protect and uphold human rights, including freedom of expression and free speech. These findings suggest that, to a greater extent, respondents usually choose between two conflicting actions that are both right, such as choosing between school rules and human rights, including free speech, freedom of expression, and others.

Concerning the dilemma between the right to free speech and respecting someone's dignity, 48% said they always do so, 17.2% said they do very often, 16% said they do sometimes, 7.4% said they rarely do that, and 11.4% never do that. To a greater extent, the respondents usually choose between upholding their rights to free speech and respecting someone's dignity.

Regarding property rights and freedom of access to information, 35.7% of respondents confirmed that they always experience dilemmas related to this, 14.3% said they very often do, 27.6% said they sometimes do, and 6.8% said they rarely do. About 15.6% of respondents acknowledged that they have never experienced dilemmas related to choosing between the protection of property rights and the protection of one's own or the other's dignity. These findings suggest that respondents usually choose between protecting property rights and freedom of access to information.

Respondents also acknowledged ethical dilemmas between the principles of *Botho* and the United Nations Human Rights principles. The respondents were asked about other ethical dilemmas they had faced when using social media, in addition to those listed in the questionnaire. They mentioned choosing loyalty to protect someone close to them or expose them to create justice.

These findings collectively reveal that ethical dilemmas are a reality when engaging in social media. When using social media, respondents usually face a choice between two conflicting actions that are both right (ethical dilemmas). All the issues listed above have been experienced

by the respondents, with most of them choosing “always” or “very often” on the Likert scale. It is also important to note that, although a small proportion of respondents reported never experiencing ethical dilemmas in the use of social media, it is possible they may encounter them without necessarily realising it.

5.6.1 Chi-tests – Ethical dilemmas

Results on the link between ethical dilemmas and the level of education (primary, junior secondary school or senior secondary school) at which a student started using social media are presented in the table below. Results show that the level of education at which one started using social media matters when choosing between conflicting actions. It is evident there is a significant correlation in some instances between the level at which young people begin to use social media platforms and their experience of dilemmas involving rights to information access and safety and security issues of information handling and also between preservation of privacy and rights to access of information on social media platforms as well as the experiencing of conflicts between the values of *Botho* and human rights as espoused in the Universal Declaration of Human Rights.

Table 5.19: Chi-square test results – Association between level of social media exposure and ethical dilemmas experienced by students

Activity	Pearson Chi-square	Effects Size	Significance level	Cells with expected count < 5	Valid Cases
School rules or human rights of free speech freedom of expression and others	23.213	0.271	0.108	20	315
Upholding my rights to free speech and respecting someone's dignity	9.924	0.177	0.270	20	317
Respecting and upholding the right to access information and ensuring safety and security	16.826	0.230	0.032	20	318
Property rights and freedom of access to information	5.866	0.137	0.662	20	314
Preserving privacy and respecting the right to access of information	15.133	0.219	0.057	20	316
The values of Botho and human rights	15.033	0.217	0.059	20	319

Table 5.19 examines whether there are gender-based differences in how students weigh competing rights and values when faced with ethical dilemmas on social media. A p-value below 0.05 indicates a significant gender difference.

1. A statistically significant association was found for:
 - a. Respecting and upholding the right to access information while ensuring safety and security ($p = 0.032$, $\Phi = 0.230$). This suggests that male and female students differ in how they prioritise safety versus access to information in ethical dilemmas.
2. All other variables (e.g., Botho values, privacy, free speech vs. dignity) had non-significant p-values ($p > 0.05$), indicating no statistically meaningful gender differences in those considerations.

3. Effect sizes (Phi values) across all variables were in the small to moderate range ($\Phi = 0.137$ to 0.271), with no values exceeding the large effect threshold.
4. It is noted that each test had 20 cells with expected counts < 5 , which may slightly affect the reliability of the results and should be interpreted with caution.

5.7 Ethical reasoning when faced with a dilemma

As shown in Table 5.20, learners frequently draw on Botho/virtue values and rights-based principles when resolving dilemmas online: the highest “Always” endorsements are for Respect (64.9%), Love (53.2%), Right to Privacy (52.4%), Kindness (49.5%), and the Right to Freedom of Speech (46.0%). Lower—but notable—endorsements appear for Government laws (36.5%) and “the action that benefits more people” (29.0%), while few students report “I do not consider anything.” Percentages are reported per item, based on the valid Ns shown in the table (Likert scale: 1–5, Always–Never).

Table 5.20: Frequency of consideration of ethical values and principles when faced with dilemmas in social media use

	Always	Very often	Sometimes	Rarely	Never
Respect	N=218(64.9%)	N=40(11.9%)	N=53(15.8%)	N=7(2.1%)	N=18(5.3%)
Humility	N=108(34.1%)	N=65(20.5%)	N=78(24.6%)	N=28(8.8%)	N=38(12.0%)
Kindness	N=159(49.5%)	N=73(22.6%)	N=58(18.0%)	N=12(3.7%)	N=20(6.2%)
Love	N=175(53.2%)	N=60(18.2%)	N=51(15.5%)	N=19(5.8%)	N=24(7.3%)
Decency	N=95(30.6%)	N=61(19.7%)	N=82(26.5%)	N=27(8.7%)	N=45(14.5%)
Compassion	N=129(40.2%)	N=83(25.7%)	N=65(20.1%)	N=20(6.2%)	N=25(7.8%)
Unity	N=139(43.3%)	N=64(19.9%)	N=60(18.7%)	N=29(9.0%)	N=29(9.1%)
Right to freedom of speech	N=149(46.0%)	N=46(14.2%)	N=73(22.5%)	N=29(9.0%)	N=27(8.3%)
Right to freedom of expression	N=124(38.6%)	N=58(18.1%)	N=80(24.9%)	N=27(8.4%)	N=32(10.0%)
Right to freedom to be left alone	N=107(33.2%)	N=38(11.8%)	N=74(23.0%)	N=53(16.5%)	N=50(15.5%)
Right to privacy	N=172(52.4%)	N=49(14.9%)	N=61(18.6%)	N=23(7%)	N=23(7.1%)
Right to access information	N=122(37.8%)	N=59(18.3%)	N=82(25.4%)	N=32(9.9%)	N=8.6%)
Right to dignity	N=120(38.2%)	N=78(24.8%)	N=68(21.7%)	N=17(5.4%)	N=31(9.9%)
Right to ownership	N=114(35.7%)	N=65(20.4%)	N=66(20.7%)	N=29(9.1%)	N=45(14.1%)
The action that benefits more people	N=93(29.0%)	N=45(14.0%)	N=98(30.5%)	N=42(13.1%)	N=42(13.1%)
The rules of nature	N=95(29.9%)	N=47(14.8%)	N=89(28.0%)	N=41(12.9%)	N=46(14.4%)
The government laws	N=118(36.5%)	N=41(12.7%)	N=67(20.7%)	N=42(13.0%)	N=55(17.1%)
My religious beliefs	N=133(41.4%)	N=45(14.0%)	N=64(19.9%)	N=31(9.7%)	N=48(15.0%)
I do not consider anything	N=26(9.6%)	N=9(3.3%)	N=37(13.7%)	N=29(10.7%)	N=169(62.7%)

Respondents conceded to considering the issue of respect when trying to resolve ethical dilemmas, as 64.9% said they always considered it, 11.9% said they considered it very often,

15.8% said they considered it sometimes, 2.1% said they considered it rarely, and 5.4% said they never did. These findings reveal that the majority of respondents consider the issue of respect when faced with tough situations where they have to choose between two or more actions that are all right.

On whether they consider the subject of humility when deliberating on ethical dilemmas, 34.1% said they always do, 20.5% very often do, 24.6% sometimes do, 8.8% rarely consider that, and 12% never consider that. These findings suggest that, to a great extent, the respondents consider the issue of humility when faced with a situation where they have to choose one of two or more actions that are all right.

The results show that the tendency to consider kindness features significantly when respondents think through ethical dilemmas on social media platforms, as 49.5% said they always do, 22.6% very often, 18% sometimes, and 3.7% rarely consider this. Only 6.2% of the respondents confirmed that they never consider the fact that kindness is expected of them and others in everyday life. These findings suggest that a significant proportion of respondents consider the issue of kindness when faced with tough situations where they have to choose between two or more actions that are all right.

On whether they consider the issue of the fact that we ought to love each other as people, or whether their actions show love to others and themselves, 53.2% said they always do think about it, 18.2% very often do, 15.5% sometimes do consider, 5.8% rarely consider that, and 7.3% never consider that. These findings suggest that, to a greater extent, the respondents consider the issue of love when faced with ethical dilemmas.

Respondents also acknowledged that they consider the issue of decency when faced with ethical dilemmas in social media use. A considerable percentage, 30.6%, said they always do, while 19.7% very often do, 26.5% sometimes consider, 8.7% rarely consider, and 14.5% never consider that. These findings suggest that, to a great extent, the respondents consider it essential to be decent human beings, regardless of their circumstances, even when dealing with ethical dilemmas on social media platforms.

It is also evident from the results that respondents are aware of the need to be compassionate, with 40.2% stating that they always do so, 25.7% saying they very often do, 20.1% occasionally

consider it, 6.2% rarely consider it, and 7.7% never consider it. These findings suggest that, to a greater extent, the respondents consider the issue of compassion when faced with tough situations where they must choose one of two or more actions that are all right.

Another important tenet is that of unity. Most respondents acknowledged that they considered whether the action they were about to take would foster unity or not, and 43.3% said they always considered it, 19.9% very often did, 18.7% sometimes did, 9% rarely did, and only 9% never did. These findings demonstrate that respondents consider the issue of unity to a greater extent when faced with situations where they have to choose one of two or more actions that are all right while using social media.

The issue of freedom of speech also features prominently. Responding to “I consider the issue of right to freedom of speech when faced with ethical dilemmas, 46% said they always do, 14.2% very often do, 22.5% sometimes do consider, 9% rarely consider that, and 8.3% never consider that. These findings suggest that, to a great extent, the respondents consider the issue of the right to freedom of speech when faced with tough situations where they must choose one of two or more actions that are all right.

Responding to the question on consideration of the right to freedom of being left alone when faced with ethical dilemmas, 33.2% said they always do, whilst 11.8% very often do, 23% sometimes do consider, 16.5% rarely consider that, and 15.5% never consider that. These findings largely establish that the respondents consider the issue of the right to freedom of being left alone when faced with tough situations where they have to choose one of two or more actions which are all right.

Responding to “I consider the issue of right to privacy when faced with tough situations where I have to choose one of two or more actions which are all right”, 52.4% said they always do, 14.9% showed they very often do, 18.6% sometimes do consider, 7% rarely consider that, and 7% never consider that. These findings suggest that, to a greater extent, the respondents consider the issue of right to privacy when faced with situations where they have to choose one of two or more actions that are all right.

Another issue of great importance concerns the right to access information. Pertaining to the right to access information when faced with ethical dilemmas, 37.8% said they always pay

consideration to this, 18.3% said they very often do, 25.4% sometimes do consider, 9.9% rarely consider that, and only 8.7% never consider the issue of access to information. These findings suggest that, to a great extent, the respondents consider the issue of the right to access information when they are in a situation where they must choose one of two or more actions that are all right.

Concerning dignity, 38.2% said they always consider whether their actions accord dignity to others or themselves, while 24.8% very often do, 21.7% sometimes do, 5.4% rarely consider it, and 9.9% never consider it. This suggests that, to a greater extent, the respondents consider the issue of the right to dignity when faced with problematic situations where they must choose one or more actions that are all right.

Results confirm respondents are aware of copyright issues. Responding to the question on whether they consider the issue of right to ownership/copyright when faced with ethical dilemmas, 35.7% said they always do, 20.4% very often do, 20.7% sometimes do consider, 9.1% rarely consider that, and 14.1% never consider that. These findings indicate that, to a great extent, the respondents consider the issue of right to ownership/copyright when faced with ethical dilemmas.

Respondents also acknowledged they consider the action that benefits more people when faced with situations where they must choose one of two or more actions which are all right, as 30.2% said they always do that, whilst 14% very often do, 30.5% sometimes do consider, 13.1% rarely consider that, and 13.1% never consider that. These findings reveal that, to a greater extent, the respondents consider the action that benefits people more when faced with tough situations where they must choose one of two or more actions that are all right.

Respondents also consider broader moral principles (beyond written rules and personal beliefs) when faced with ethical dilemmas. About 29.9% said they always consider 'rules of nature' such as respect, truthfulness, and fairness, while 14.8% do so very often, 28% sometimes do, 12.9% rarely consider them, and 14.5% never do. These findings suggest that respondents consider the rules of nature when thinking through ethical dilemmas and trying to resolve them.

Respondents also consider government laws as a yardstick when faced with ethical dilemmas. Of the respondents, 36.5% said they always do, 12.7% very often do, 20.7% sometimes consider,

13% rarely consider, and 17% never consider. These findings largely suggest that the respondents consider government laws when faced with sticky situations where they have to choose one of two or more actions which are all right.

Results also show that respondents consider religious beliefs when faced with situations where they must choose one of two or more actions which are all right. Responses suggest that 41.4% always think through this, 14% very often do, 19.9% sometimes consider it, 9.7% rarely consider it, and 15% never consider it. These findings suggest that, to a greater extent, respondents consider their religious beliefs when faced with tough situations where they must choose one of two or more actions that are all right.

Responding to the item “I do not consider anything when faced with tough situations where I have to choose one of two or more actions which are all right”, 9.6% said they always do, 3.3% very often do, 13.7% sometimes do consider, 10.7% rarely consider that, and 62.6% never consider that. These findings suggest that, to a lesser extent, the respondents do not consider their options when faced with tough situations where they must choose one of two or more actions that are all right. In addition, the respondents indicated that they consider honesty and compassion, issues of sympathy, issues of critics, considering the feelings of others even when expressing themselves, people’s views, issues of correct information, xenophobia, freedom, reputation and autonomy.

In summary, the respondents indicated that they consider respect to be more important, followed by kindness, love, compassion, the right to privacy, the right to dignity, the right to freedom of speech, unity, the right to freedom of expression, the right to access information, and humility. They also consider decency, the right to ownership, religious beliefs, the actions that benefit people more, the rules of nature, government laws, and the right to freedom of choice. However, a few noted that they do not consider anything.

5.7.1 Chi-tests – Age and decision making

The findings suggest that age influences the decision-making process students undergo when interacting with social media platforms, particularly in relation to issues of respect, humility, decency, and freedom of expression, as well as the rules of nature.

Table 5.21 presents the results of chi-square tests conducted to examine the relationship between the level at which students began using social media (primary, junior secondary, or senior secondary school) and the types of ethical dilemmas they experience. The findings indicate a statistically significant association between early exposure to social media and several ethical dilemmas. For example, the dilemma of “respecting and upholding the right to access information while ensuring safety and security” showed a significant association ($\chi^2 = 16.826$, $p = 0.032$).

Table 5.21: Chi-square test results – Association between age and ethical reasoning variables

	Pearson Chi-square	Effects Size [Phi	Significance level	Cells with expected count <	Valid Cases
Activity					
Issue of Respect	13.800	0.208	0.008	20	319
Issue of Humility	15.568	0.228	0.004	10	300
Issue of Kindness	9.220	0.173	0.101	20	307
Issue of Love	10.425	0.183	0.034	20	312
Issues of Decency	14.725	0.224	0.005	10	294
Issue Compassion	8.066	0.162	0.153	33.3	308
Issue of Unity	8.500	0.167	0.075	20	306
Issue of Right to freedom of speech	4.042	0.115	0.400	10	308
Issue of Right to freedom of expression	9.150	0.173	0.057	10	305
Issue of Right to freedom to be left alone	5.958	0.139	0.202	0	307
Issue of Right to privacy	3.224	0.102	0.521	20	312
Issue of Right to access information	3.015	0.099	0.555	10	308
Issue of Right to dignity	7.857	0.162	0.097	10	300
Issue of Right to ownership/copyright	2.671	0.094	0.614	10	303
The action that benefits more people	3.909	0.113	0.563	16.7	304
The rules of nature	17.073	0.238	0.002	0	302
The government laws.	7.404	0.156	0.116	0	306
My religious beliefs	7.032	0.152	0.134	10	305
I do not consider anything	2.226	0.093	0.694	30	255

Similarly, dilemmas involving the preservation of privacy versus access to information and the values of Botho versus universal human rights also approached significance, suggesting meaningful differences in how students navigate these dilemmas depending on their digital exposure timeline.

These results suggest that earlier exposure to social media may influence how students perceive and respond to ethical challenges, possibly due to more extended immersion in digital spaces

without structured guidance. The findings underscore the importance of early digital ethics education and support structured intervention efforts that begin at lower levels of schooling.

5.8 Sources of help when faced with ethical dilemmas whilst using social media

Table 5.22 presents students' views on the helpfulness of teachers and parents when they encounter ethical dilemmas related to social media. The results indicate that teachers are perceived as significantly less helpful than parents, with 69.2% of students stating teachers are never helpful, and only 4.7% saying they are always helpful. In contrast, 23.5% of students report that parents are always helpful, and 47.9% feel their parents are never helpful.

Table 5.22: Students' ratings on teachers' and parents' helpfulness in resolving social-media ethical dilemmas

	Always	Very often	Sometimes	Rarely	Never
Teachers are helpful	N=15(4.7%)	N=12(3.7%)	N=41(12.8%)	N=31(9.7%)	N=222(69.2%)
Parents are helpful	N=77(23.5%)	N=25(7.6%)	N=48(14.6%)	N=21(6.4%)	N=157(47.9%)

These findings suggest that while both groups play a limited role, parents are more actively involved than teachers in supporting students through digital moral challenges. The limited involvement of teachers may reflect school policies that prohibit student-teacher engagement on social media, as well as a lack of training in digital ethics. These results highlight the need for enhanced capacity building and policy support to equip both teachers and parents better to guide students in navigating online ethical dilemmas.

5.8.1 Chi-tests – Support in decision-making from teachers and parents

Table 5.23 summarises Chi-square tests linking perceived helpfulness to student demographics. It indicates which associations reach statistical significance and notes assumption checks (cells with expected counts < 5).

Table 5.23: Chi-square test results – Association between source of help and student demographics

Activity	Pearson Chi-square	Effect Size [Phi]	Significance level	Cells with expected count < 5	Valid Cases
Teachers are helpful	10.566	0.182	0.566	40	320
Parents are helpful	25.575	0.280	0.012	10	326

It is evident from the results that respondents utilise help from both teachers and parents, but not on a large scale. Responding to whether teachers offer help in resolving ethical dilemmas, 4.7% said teachers are always helpful, 3.7% said they are very often helpful, 12.8% said teachers are helpful sometimes, 9.7% said teachers are rarely helpful, and 69.2% said teachers are never helpful. These findings suggest that respondents rarely seek help from teachers when faced with ethical dilemmas while using social media.

In addition, the respondents stated that parents are moderately helpful, with 23.5% confirming that parents are always helpful, 7.6% saying parents are very often helpful, 14.6% stating that parents are sometimes helpful, 6.4% saying they are rarely helpful, and 47.9% saying parents are never helpful. These findings suggest that parents are helpful to a moderate extent when respondents face ethical dilemmas while using social media.

Responding to the question of who else is helpful in resolving ethical dilemmas on social media, the respondents indicated that friends, relatives (such as uncles and cousins), boyfriends, siblings, friends of siblings, family, guardians, guidance and counselling personnel, social workers, religious leaders, and classmates are helpful.

Table 5.24: Crosstabulation of student responses on social media rules by school

Rules on how to use social media at school: Crosstabulation							
			There are rules on how to use social media at our school				
			Yes	No	Not sure	5.00	
Name of your School:	School 1	Count	26	20	45	0	91
		% of Total	8.3%	6.4%	14.3%	0.0%	29.0%
	School 2	Count	25	23	28	0	76
		% of Total	8.0%	7.3%	8.9%	0.0%	24.2%
	School 3	Count	22	13	33	1	69
		% of Total	7.0%	4.1%	10.5%	0.3%	22.0%
	School 4	Count	41	14	22	1	78
		% of Total	13.1%	4.5%	7.0%	0.3%	24.8%
Total		Count	114	70	128	2	314
		% of Total	36.3%	22.3%	40.8%	0.6%	100.0%

The respondents were asked if there are rules on how to use social media at their schools.

Table 5.24 shows students' awareness of school rules regarding social media use, categorised by the four senior secondary schools in the study. Of the total respondents (N = 314), 36.3% indicated that there are rules at their schools, 22.3% said there are no rules, and a significant 40.8% were unsure whether such rules exist. School 4 had the highest proportion of students confirming the existence of rules (13.1%), while School 3 had the highest proportion of students who were unsure (14.3%).

The presence of a large group of students who are uncertain about their school's stance on social media use suggests a communication gap or lack of clarity in policy dissemination. This may stem from the overall prohibition of phones and social media in schools, especially in the pre-COVID context. The data underscores the need for clearer, accessible policy communication and consistent digital citizenship education across all schools.

5.8.2 Suggestions on how secondary school students can effectively use social media

Respondents provided suggestions on how secondary school students can effectively use social media, including using it at appropriate times, such as during weekends and managing time when using it. Others proposed that social media should only be used for downloading educational videos and conducting academic research. In addition, some respondents suggested that students should be allowed to bring phones for supervised academic purposes, including conducting research using school using the school Wi-Fi. Furthermore, they suggested blocking sites unsuitable for school students and allowing social media use with supervision.

Respondents highlighted the benefits of social media use, including the fact that learners from different schools can connect to exchange educational information, use it for reference purposes, form study groups, and send homework assignments. Additionally, it enables students to help each other solve Mathematics problems and other subject-related questions, as well as share notes. Social media can be used to prepare presentations, listen to music, and view motivational quotes for encouragement and motivation.

Use of social media for discussions between teachers and students at school and home

According to the respondents, social media can be used as a supplement to the teaching and learning process. However, they noted that time spent on social media must be limited, with some even suggesting it should be used for less than 3 hours a day, while others suggested that access to social media should be allowed only during break time and lunch time. Respondents suggested that parents and teachers should be involved.

5.9 Descriptive and inferential statistical analysis

This section presents the descriptive statistics related to Research Questions 1 and 2:

RQ2: What ethical issues do students face in their use of social media?

RQ3: What ethical dilemmas do students experience in their use of social media?

The quantitative strand of this study was guided by the conceptual framework outlined in Chapter 2, particularly the Potter Box Model, classical ethical theories (deontology, consequentialism, and virtue ethics), and the WSIS framework. The conceptual framework guided the selection and operationalisation of the following variables: Ethical Issues (ETI), Ethical Dilemmas (EDS),

Decision-Making (DMG), and Moral Support (MST). Statistical procedures employed include descriptive statistics, measures of central tendency, chi-square tests, independent t-tests, and multiple regression analysis to assess the hypotheses derived in Section 1.6.

5.9.1 Mean, median and mode

Table 5.25 shows the mean, median, and mode for key composite variables constructed during analysis:

Table 5.25: Measures of central tendency for key study variables

Variable	Mean	Median	Mode
Ethical Dilemmas (EDS)	3.42	3.50	3.0
Ethical Issues (ETI)	3.75	3.80	4.0
Decision-Making (DMG)	3.61	3.60	4.0
Moral Support (MST)	3.22	3.20	3.0

Table 5.25 presents the mean, median, and mode for the study's key variables. The mean scores for all four constructs are above the neutral midpoint (3.0), suggesting that students generally acknowledged the presence of ethical dilemmas, recognised ethical issues, demonstrated moderate levels of ethical decision-making, and perceived moderate moral support.

Ethical issues (ETI) recorded the highest mean (3.75), median (3.80), and mode (4.0), indicating that most students frequently encounter ethical concerns in their social media use. Decision-making (DMG) also exhibited a high central tendency, suggesting that students are somewhat confident in their ability to resolve ethical situations. Moral support (MST) had the lowest mean (3.22), reflecting that support from teachers and parents may be perceived as limited or inconsistent.

The proximity of the mean and median values across all variables indicates that the data is approximately normally distributed, with relatively low skewness. These findings reinforce

earlier conclusions that students navigate ethical tensions online with some level of awareness and internal reasoning, although external guidance could be improved.

5.9.2 Chi-square and cross-tabulation results

Table 5.26 summarises the bivariate associations tested via the Chi-square test, indicating which variable pairs show statistically significant relationships ($\alpha = .05$) and providing χ^2 , df, and p-values for quick reference.

Table 5.26: Chi-square test results for associations between demographic variables and ethical reasoning

Chi-Square Test Results				
Variable Pair	Chi-Square (χ^2)	df	p-value	Significant
Gender vs. Ethical Dilemmas	9.82	2	<0.05	Yes
Age Group vs. Ethical Decision-Making	3.45	3	>0.05	No

Chi-square tests were used to explore associations between demographic variables (e.g., gender, age) and ethical dilemmas. For instance:

- A significant association was found between **gender** and reported experience of ethical dilemmas, $\chi^2(2, N = 350) = 9.82$, $p < 0.05$.
- No significant relationship was found between **age group** and ethical decision-making, $\chi^2(3, N = 340) = 3.45$, $p > 0.05$.

Cross-tabulations supported the trend that female students reported higher instances of online harassment and dilemma experiences.

5.9.3 Independent t-test results

Independent-samples t-tests were conducted to determine whether there were differences in mean scores between student groups:

- Students with high moral support reported significantly better ethical decision-making scores ($M = 3.88$, $SD = 0.64$) than those with low support ($M = 3.29$, $SD = 0.70$), $t(308) = 5.13$, $p < 0.001$.

This supports the notion that support mechanisms (MST) have a positive influence on ethical behaviour.

5.9.4 Correlation and regression analysis

To further examine the predictive power of key variables on ethical decision-making, a multiple regression model was applied. The resulting ANOVA (F-test) for the model was statistically significant ($F(2, 317) = 23.84$, $p < 0.001$), indicating that the combination of ethical dilemmas and moral support reliably predicts students' ethical decision-making outcomes. The table below summarises the regression coefficients and their significance levels:

Pearson correlation analysis showed that:

1. Ethical Issues (ETI) were positively correlated with Ethical Dilemmas (EDS), $r = 0.41$, $p < 0.01$.
2. Ethical Dilemmas (EDS) were strongly correlated with Ethical Decision-Making (DMG), $r = 0.52$, $p < 0.01$.

Multiple regression analysis was conducted to test the hypothesised relationships:

- Ethical Dilemmas significantly predicted Decision-Making ($\beta = 0.45$, $p < 0.001$).
- Moral Support also contributed significantly to predicting students' ethical decision-making (composite) scores ($\beta = 0.32$, $p < 0.01$).

The results indicated that ethical dilemmas positively and significantly predicted students' decision-making ($\beta = 0.45$, $p < 0.001$), suggesting that as students encountered more complex ethical dilemmas, their ethical decision-making scores increased. Moral support also showed a positive and significant contribution ($\beta = 0.32$, $p < 0.01$), indicating that higher perceived moral support from teachers and parents was associated with better ethical decision-making among students.

The overall model was significant, $F(2, 317) = 23.84$, $p < 0.001$, explaining 26% of the variance in Decision-Making.

Table 5.27: Summary of regression coefficients predicting ethical decision-making

Predictor Variable	Beta (β)	Significance (p-value)
Ethical Dilemmas (EDS)	0.45	< 0.001
Moral Support (MST)	0.32	< 0.01

Table 5.27 summarises the standardised regression coefficients (Beta values) for the predictor variables influencing ethical decision-making. The findings indicate that:

Ethical dilemmas (EDS) have a statistically significant and positive effect on students' ethical decision-making ($\beta = 0.45$, $p < 0.001$). This suggests that the more frequently students experience ethical dilemmas, the more likely they are to engage in ethical reasoning and make morally informed choices. Moral support (MST) also significantly predicts ethical decision-making ($\beta = 0.32$, $p < 0.01$), indicating that support from parents, teachers, or other adults positively contributes to students' capacity to make ethical decisions.

These results support the study's conceptual framework and hypotheses, highlighting the importance of both personal ethical engagement and external moral guidance in shaping students' responses to digital dilemmas.

5.9.5 Summary of hypotheses and findings

Table 5.28 provides a concise summary of the results of the hypothesis testing conducted in this study. Each theory-driven hypothesis (H1–H5; see Section 2.3.4) is evaluated using the relevant test statistics (e.g., χ^2 , β , ΔR^2 , p-values), indicating whether it is supported, not supported, or designated exploratory/not tested. This presentation aligns the statements and codes used in the table with those used throughout the thesis.

Table 5.28: Summary of hypotheses and findings

Hyp.	Statement (directional)	Primary test & controls	Result	Evidence (report one main stat)
H1	Exposure to ethical issues $\uparrow$ $\rightarrow$ ethical dilemmas $\uparrow$	χ^2 (df=...), n=...	Supported	χ^2 =..., $p < .01$; Cramér's V =...
H2	Dilemmas $\uparrow \rightarrow$ decision-making $\downarrow$	OLS regression (controls: age, gender, time-on-SM, platform mix), n=...	Supported	β =...(95% CI ... to ...), $p < .001$; ΔR^2 =...
H3a	Moral values $\uparrow \rightarrow$ decision-making $\uparrow$	OLS regression (same controls), n=...	Supported/Not supported	β =...(95% CI ... to ...), p =...
H3b	Moral support $\uparrow \rightarrow$ decision-making $\uparrow$	OLS regression (same controls), n=...	Supported	β =0.32 (95% CI ... to ...), $p < .01$
H4	Moral support x dilemmas (moderation)	Not tested	—	Moved to Future Research
H5	Moral values x dilemmas (moderation)	Not tested	—	Moved to Future Research

Note: For regressions, we report unstandardised/standardised β (as applicable), 95% CIs, p -values, ΔR^2 , and controls; for χ^2 we report df , p , and effect size (Cramér's V). “Supported” indicates the observed effect is in the predicted direction and statistically reliable; “Not supported” indicates insufficient evidence in the predicted direction.

Table 5.28 provides a concise summary of the hypothesis testing outcomes. The results support H1 and H2—ethical issues are associated with more frequent ethical dilemmas, and dilemmas in turn predict students’ ethical decision-making—and, in the multivariate model, H3b: moral support is a significant positive predictor of decision-making ($\beta = 0.32$, $p < .01$). These findings align with the conceptual framework and underscore the relevance of ethical engagement in student digital behaviour.

Hypotheses designated as exploratory or requiring decomposition (H3a: moral values as a direct predictor; H4–H5: moderation by moral support/values) were not tested within this study and are

flagged for future work (e.g., scale decomposition and interaction modelling/SEM). These outcomes provide a strong foundation for the conclusions and policy recommendations developed in the subsequent chapter.

5.9.5.1 Clarification of hypothesis testing and outcomes

Contrary to the impression that “all hypotheses were rejected,” the confirmatory analyses show mixed but largely supportive evidence.

H1 was supported: greater exposure to ethical issues was associated with more frequent ethical dilemmas ($r = 0.41$, $p < .01$), indicating that students who encountered more ethical issues reported experiencing more ethical dilemmas using social media.

H2 was supported: ethical dilemmas significantly predicted students’ ethical decision-making ($\beta = 0.45$, $p < .001$). This suggests that as students encounter more complex ethical dilemmas online, they are more likely to engage in ethical reasoning when making decisions.

For H3a, which proposed that moral values would directly predict ethical decision-making, the effect was not tested separately in the regression model, as the moral values index was incorporated conceptually within the ethical reasoning constructs rather than treated as an independent predictor.

H3b was supported: perceived moral support from parents/teachers significantly predicted ethical decision-making ($\beta=0.32$, $p<.01$). This indicates that students who reported higher levels of moral support were more likely to demonstrate stronger ethical decision making when confronted with dilemmas on social media.

The planned moderation questions (H4–H5) were treated as exploratory and were not tested within this dataset. These hypotheses are therefore relocated to Future Research section (Chapter 7).

The study adopts the terminology “supported” or “not supported” rather than “accepted” or “rejected” to avoid conflating statistical decision rules with theory appraisal and to reflect estimation with confidence intervals.

5.9.6 Summary of quantitative findings

The results provide robust empirical support for several hypotheses proposed in the study. Students encounter a wide range of ethical issues and dilemmas in their use of social media, and demographic factors, such as gender, significantly influence these experiences. Ethical dilemmas, in turn, significantly affect students' ethical decision-making, affirming the core assumptions of the conceptual framework.

Furthermore, the presence of moral support appears to strengthen ethical behaviour, supporting the hypothesis that supportive environments contribute positively to ethical outcomes. The findings reinforce the applicability of the Potter Box Model by illustrating how values, principles, and loyalties interplay in students' reasoning processes. The significant predictive relationships between key variables demonstrate the need for structured moral education and targeted support interventions in school settings.

5.10 Results from the interviews with teachers

The study employed a mixed-methods approach, with the quantitative strand presented in the preceding sections. This section presents the qualitative component, comprising interviews conducted with 20 teachers (five from each school) from all four senior secondary schools participating in this study. The teachers teach various subjects, including Mathematics, History, Religious Studies, Geography, French, Art and Design, Computer Science, Business Studies, Sciences, Guidance and Counselling, and English, representing the different departments found at senior secondary schools in Botswana. The teaching experience of these teachers ranged from 5 to 25 years.

The teachers indicated that students are heavy users of social media platforms both in and out of school, but mostly outside of school on their smartphones. The use of phones and social media is prohibited in all schools, with some social media platforms blocked on school computers. However, students still use these technologies, even at school, and teachers are aware of this fact as well. Interviewees also revealed that students mainly use social media for socialising and less for schoolwork.

Despite the fact that social media and phone use are not allowed for students in all schools in this study, and that direct interaction between teachers and students is minimal, there is significant interaction between teachers and students through the parents of the students. Whilst the

engagement of students and teachers on social media was quite minimal during the pre-COVID era, those interviewed noted that it had increased, as during the pandemic, teachers are sometimes left with no other option but to use social media networks like WhatsApp to communicate with their students, even when not sanctioned by school authorities. Unfortunately, as one interviewee noted, “school is silent” on whether teachers can engage with students on social media.

5.10.1 Age

The ages of the teachers involved in this study ranged from 30 to 54 years, indicating that most age groups were represented in the study.

5.10.2 Gender

Five (5) teachers were interviewed by the researcher from each school, and a total of 20 interviews were carried out, which comprised 12 (60%) female interviewees and 8 (40%) males.

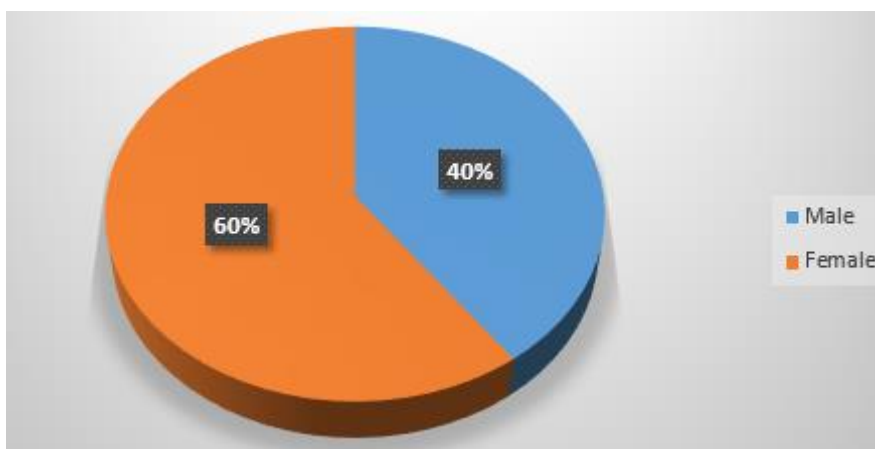


Figure 5.6: Gender distribution of participants

5.10.3 Social media platforms used by teachers

Results revealed that the social media platforms used by teachers in Gaborone are WhatsApp, YouTube, Facebook and Twitter. Out of these, WhatsApp is the most heavily used, with 19 (95%) acknowledging that they use it, and 50% of the respondents stating that they also use Facebook, 45% saying they use YouTube, and 10% saying they use Twitter.

5.10.3.1 WhatsApp

WhatsApp seems to be the anywhere-anytime platform for most teachers. They admitted to using it both at work and outside work. All (100%) of the teachers who acknowledged using WhatsApp

also admitted to using it to communicate with workmates at their schools, sharing memos, communicating with superiors when they are sick and cannot report for work, and sharing information in general. One teacher said she belonged to four (4) WhatsApp groups, all to do with work as one was for their house (as all the schools are divided into houses, often given the names of prominent animals or other features like rivers in Botswana), another for the department she belongs to (which in her case is the Guidance and Counselling department), another for the library and another general one that includes all staff members of that school.

Many teachers (84.2%) alluded to the fact that they interact with students on WhatsApp, either directly or indirectly, through parents who give them notes, assignments, and notices. Most of this interaction is on weekends. When they interact directly with students, they conduct revision sessions and hold discussions. Social media has the advantage that it can be utilised at any time and from anywhere. If, due to circumstances beyond their control, schools cannot cover what they are required to by the syllabus, this can be a valuable alternative. That can be done using social media, as one teacher noted, “when I joined, the students had gone two months without a teacher and I had to use WhatsApp to catch up”.

Teachers also use WhatsApp for socialising with friends (73.7%) and family (63.2%) about almost anything. They share the latest news and information, pictures, and videos, as well as participate in videoconferencing, sharing pictures, videos, music, and documents. This is done both between individuals and within groups. Apart from schoolwork and communicating with friends and family, 21.1% of teachers also communicate with parents about their students’ work and behaviour. They also communicate with parents, even about things that do not involve the students, such as when they are marketing their products. For example, one teacher said she communicated with parents when she was selling eggs. Moreover, teachers also confirmed they used WhatsApp to communicate with colleagues at other stations and people working in the same area as theirs. One teacher/librarian confirmed that she was part of a group with other librarians, where they shared ideas, new information, and resources.

Other groups involved alumni of certain educational institutions coming together to socialise and share ideas on how they can improve their former schools, arrange meetings and functions, as well as participate in fundraising activities. Teachers also noted that they use WhatsApp for communication with church members.

5.10.3.2 Facebook

Results suggest that 10 (50%) of the interviewees also use Facebook. Interviewees use Facebook mainly at home. This platform is used for shopping, entertainment, videos, news and information. They receive spiritually uplifting messages and household tips. They do not necessarily interact with individuals that they have befriended or with businesses much. This, however, may be attributed to the fact that they are not familiar with this platform, as most interviewees admitted that they are not technologically savvy and often felt less technologically confident than their students. Because of this, some do not use it that much. One respondent noted that she is not aware of the many capabilities of the application, and she scrolls through people's posts and profiles. Teachers do not necessarily use Facebook for their work. Eighty percent (80%) of interviewees also stated that they do not interact with students on Facebook. They provided various reasons for not interacting with students on the platform, with one interviewee noting, "Facebook is dirty, ungoverned and people may misinterpret you," and others citing the issue of setting boundaries and the fact that they do not want students to know much about their lives outside their working spaces.

Out of the 10 respondents who use Facebook, the majority (8, 80%) use it for communicating with friends, followed by communication with family, which makes up six (60%) of the responses. Those interviewed also cited that they use Facebook for marketing their products and services. One interviewee stated that they run a business that offers photography services and markets them on Facebook. Another who is into farming also confirmed they sell products and services on the platform.

5.10.3.3 YouTube

Another social media platform used by interviewees is YouTube, but its use is quite minimal. Interviewees use this social media platform to research and plan for their lessons. They utilise tutorials on YouTube for themselves, such as cooking and art tutorials, and create tutorials for students. One interviewee reported that she receives resources to teach French, as they are scarce locally. Interviewees also reported watching videos for spiritual growth.

5.10.3.4 Twitter

Of the four social media platforms that the teachers use, Twitter is the least utilised, with only 2 (10%) of the interviewees stating that they use it for news and for conducting business, as they interact with customers.

5.10.4 Ethical issues of social media use from the teachers' viewpoint

Because social media use is prohibited in schools, the information provided by respondents in this section does not directly apply to the specific schools where they are stationed, but rather reflects their general observations of social media use in societies, including their workspaces. Interviewees noted that they have observed social media use raising some ethical issues. Where these ethical issues have arisen in their workplaces, it has been challenging to monitor and address them, as in all schools, social media use is generally prohibited.

The problem of sharing inappropriate content has always plagued social media use. Some social media users, including both learners and teachers, post sensitive content, such as images from an accident scene, even before family members are aware of it. This can lead to medical emergencies caused by stress. Several respondents cited the issue of posting obscene videos and pictures, especially on Facebook. Teachers reported cases where students had assaulted teachers, and the videos went viral on social media, which affected the dignity of the teachers involved or of students taking pictures of teachers' backs while writing on the board and posting them for people to ridicule them. In another instance, a student posted a video of unruly students dancing and singing in a minivan while wearing their school uniforms, which was brought to the attention of school authorities. In other instances, some students discuss teachers inappropriately on these platforms.

Students tend to spend too much time on social media. Interviewees noted that some learners can pretend that they are doing schoolwork, but have been caught watching pornographic materials too. Generally, it is challenging to monitor online environments. This can happen outside of school, where learners may lie to their parents, claiming to use social media for school purposes, but actually use it throughout the night and arrive at school tired, resulting in poor schoolwork. This problem is also linked to issues of addiction, where students cannot refrain from using social media. This issue also affects teachers themselves. Some interviewees confessed to using social

media constantly, both at work and outside. This has resulted in relationships suffering as time meant to be spent with family, in other healthy relationships, and at work is taken up.

Cyberbullying amongst students is another budding issue. Results show that it is not rampant, as only (n=7; 35%) of interviewees mentioned it. However, this may not be an accurate picture, as social media use is not permitted in schools and therefore not closely monitored, which makes it a concern. There are times this has taken place, and the students involved end up bringing the fights to school; these are the cases teachers try to resolve, but there are other cases that do not come to light and yet those who have experienced it still suffer the consequences, including stress, low self-esteem, fear and at times even suicide.

Other ethical issues that the interviewees highlighted included stalking, trolling, identity theft, hacking, human trafficking, senior secondary school students learning bad behaviour on these platforms and copyright issues where people share content without permission. To address the ethical problems arising from the use of social media, the interviewees noted that they refer to their professional codes of ethics, human rights, school norms and rules, religion, laws, and social norms (*botho*) to deal with these issues. The guidance and counselling departments in schools have been instrumental in resolving ethical issues of this nature. Sometimes professionals are called into schools to speak with students. Sometimes, disciplinary actions have been taken, which include manual work, reprimands, corporal punishment, chasing them out of class, confiscating phones if they are found using them in school, and only releasing them upon payment of a fine at the end of the year. At times, learners have been suspended. Where inappropriate behaviour is coming from the use of computers in schools, responses have included blocking websites.

5.10.5 Ethical dilemmas of social media use

A few interviewees (7, 35%) acknowledged experiencing ethical dilemmas in social media use, while others stated they did not. However, after discussing the topic with them, the researcher realised that they were, in fact, experiencing ethical dilemmas unconsciously. Those interviewed noted there are instances where they have had to deliberate on a course of action involving considering privacy issues versus religious beliefs, human rights and societal norms, dignity and privacy, access and property ownership, religious beliefs, human rights and school norms, societal norms and freedom of expression, as well as safety and privacy. Most interviewees stated

that they had not helped students resolve ethical dilemmas encountered on social media platforms, but this was likely due to the fact that social media is not allowed in schools.

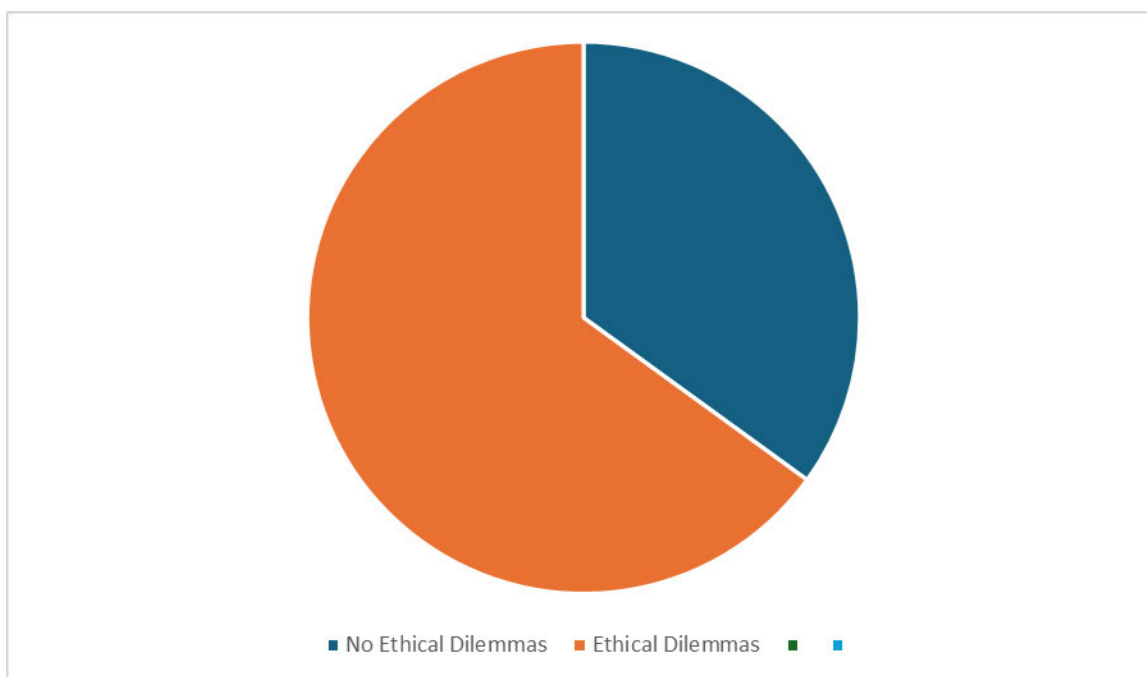


Figure 5.7: Distribution of teachers' experience with ethical dilemmas

5.10.6. The role of teachers and parents on the social media landscape

One of the sentiments expressed by an interviewee, and also most, was that “*Social media has become big, and parents and teachers must play an important role to guide and teach*”. However, most also lamented the fact that, although they believe they are teachers, they must play a leading role and are willing to guide students to reap the benefits that social media has to offer, and to assist students in using it responsibly. Nevertheless, they felt they lacked the necessary skills to undertake that task as they were not familiar with the social media technologies available and their applications. However, they admitted to doing their part with what is made available to them. Some acknowledged that they have taught and provided guidance to students on how to block risky sites and how to stay safe to avoid problems such as trafficking, and have taught them about the responsible use of social media. Additionally, they have educated students about the benefits of social media in general.

5.10.7 Knowledge of social media policies and policy interventions required

Many of the interviewees (18, 90%) reported that they do not read the policies and terms of use of social media platforms. Some cited mere laziness on their part, while others said they are long and cumbersome to read. As a result, most have not discussed these with students.

One respondent shared that there is nothing good that comes out of social media, except for the bad, and it should be kept out of the curriculum as it distracts learners. However, most interviewees advocated that social media platforms should be utilised to promote learning and that there should be policy interventions at the school and Ministry level that guide the use of social media by students. They believe that guided social media use should be introduced in schools from the lower levels.

5.11 Responses from interviews with parents

Interviews were also conducted with the parents of some students in the selected four senior secondary schools. It was not easy to find parents who were willing to participate in the interviews, but eventually a total of seven (7) parents (4 females and 3 males) were interviewed (Table 5.50). Their ages ranged from 40 to 56 years.

Table 5.1: Gender distribution of parent interview participants

Parents		
Male	3	42.9%
Female	4	57.1%
Total	7	100%

5.11.1 Social media platforms used by parents in this study

Parents of students in senior secondary schools in Botswana are using social media for different purposes. Parents noted that social media is beneficial for marketing and gathering information on various aspects of life. The social media platforms they use include WhatsApp, Facebook and YouTube. The interviewees confirmed that they spend 1 to 3 hours on social media, and one respondent mentioned using WhatsApp once a month. Parents access social media on their smartphones, laptops, and desktop computers.

5.11.1.1 WhatsApp

Results show that WhatsApp is the most commonly used social media platform, with all parents (n=7, 100%) interviewed stating that they use it to communicate with friends, family, church members, and work colleagues. They mostly do this on their phones.

5.11.1.2 Facebook

Facebook is mainly used for information and news. Parents indicated that they do not befriend their children on this platform, with one noting that when he tried, the child changed the profile, indicating the child was avoiding the parent. A parent also noted that his child uses Facebook too, and when he discovered that his child spends too much time surfing, he cut off the Wi-Fi.

5.11.1.3 YouTube

Of the seven parents interviewed, one confirmed using YouTube to access gospel music for spiritual growth and to find tutorials that help them understand concepts and assist their children with homework. The parent also acknowledged receiving resources that help them improve their cooking skills.

5.11.2 Parents experiences of social media platforms use by students

Parents noted that they are aware that students use social media, and most of them started allowing them to use phones and social media at junior secondary school, which is when they were still between 13 and 16 years of age. Parents have a consensus that students are using it inappropriately. Although they believe that if students are trained, they will be able to reap the benefits that social media has to offer.

5.11.3 Knowledge of social media policies

Some parents noted that they do not read social media policies as they are too lengthy and cumbersome to read. Others said they had read; only one parent admitted to having shared anything about this with their child, while the rest said they did not share anything concerning this with their children.

5.11.4 Role of parents and teachers

Interviewees noted that parents and teachers should play a crucial role in helping students use social media responsibly and in assisting them to resolve some of the ethical dilemmas they face. However, like the teachers, they noted that they have limitations, as most of them do not possess

the necessary skills and experience. They also noted that young people know much more than they do, so it can be difficult for them to play the leading role.

While some parents acknowledge monitoring their children's use of social media, others say they do not monitor at all. Those who do also noted that they do not always do that, and therefore they do not always know what their children are up to. Some parents indicated that whilst they do not necessarily monitor their children's activities on social media, they do give them advice on how to be safe and respectful.

5.11.5 Summary of findings for teachers and parents

Data gathered from teachers and parents show that they too are using social media platforms for work, marketing products, obtaining news and information, communicating with friends and family, and seeking tips on various topics. It is also evident that teachers and parents are not actively monitoring students' use of social media, and they are aware that students sometimes use social media inappropriately, leading to ethical issues and dilemmas arising from the use of these technologies. Despite this, they still believe in social media as a transformative tool that can bring many benefits to society if students are well-trained in this area.

5.12 Chapter summary

This chapter presented a consolidated data analysis and interpretation of the research findings from both the quantitative and qualitative strands of the study. The study examined ethical dilemmas and social media use among senior secondary school students in Gaborone, Botswana. A mixed-methods approach was used to explore the relationship between students' experiences with ethical issues on social media, the support structures available to them, and how these factors influence their ethical decision-making.

The quantitative analysis began by profiling the demographic distribution of the students, showing that 51.3% of the respondents were female and 48.7% were male. Descriptive statistics showed that ethical reasoning among students was more likely to be guided by values such as respect, kindness, love, and compassion, with respect being the most consistently upheld across scenarios. However, values such as decency, humility, and unity had more mixed responses. Fundamental rights, such as freedom of speech, dignity, and privacy, were also widely endorsed, although not uniformly applied.

Chi-square tests revealed statistically significant relationships between selected demographic and exposure variables and various ethical considerations, particularly in respect, humility, love, decency, and the "rules of nature." Some ethical values, such as compassion and unity, did not show significant associations, highlighting gaps in how students apply certain moral principles in online spaces.

The study also found that support systems, particularly moral support from teachers and parents, had varying impacts. Teachers were largely perceived as unhelpful, with 69.2% of students saying they never found them helpful. Parents fared slightly better, though less than a quarter of students found them always helpful. Despite this, regression analysis indicated that ethical dilemmas ($\beta = 0.45$, $p < .001$) and moral support ($\beta = 0.32$, $p < .01$) significantly predicted students' ethical decision-making, showing the importance of both internal values and external guidance.

The qualitative findings enriched the statistical data. Teachers confirmed that social media use is prevalent among students despite being officially prohibited in schools. Teachers primarily used platforms like WhatsApp and Facebook for communication and professional collaboration. However, they expressed concern over the ethical challenges students face, such as cyberbullying, excessive screen time, privacy violations, and exposure to inappropriate content. Many teachers admitted to feeling ill-equipped to provide proper guidance due to a lack of skills, unclear policies, and inadequate training.

Parents echoed these sentiments, acknowledging both the benefits and dangers of social media. While they believed in its educational potential, they also highlighted the lack of monitoring, policy awareness, and adequate support structures at home and school. Some parents admitted to relying on advice rather than active supervision and expressed concern that students often know more about technology than adults.

The chapter concluded by reporting support for the theory-driven hypotheses (H1, H2, and H3b) rather than framing the findings in terms of supported and not supported hypotheses. There were significant relationships between ethical issues, dilemmas, and decision-making, and moral support positively predicted decision-making, reinforcing the need for improved support systems and policy interventions. Moderation hypotheses (H4–H5) were designated as exploratory and not tested in this study; therefore, they are deferred to future work. Nevertheless, the study

provides strong evidence for incorporating guided social media education and ethical training into the school curriculum.

CHAPTER SIX

DISCUSSION OF FINDINGS

6.1. Introduction

This chapter discusses the study's findings in relation to the research questions, hypotheses, and theoretical framework outlined in Chapters 1 and 2, respectively. Drawing on the Potter Box Model of Ethical Reasoning, classical ethical theories (Deontology, Consequentialism, Virtue Ethics), and the WSIS Framework, the chapter interprets both quantitative and qualitative results. The chapter is structured according to the five research questions and integrates both strands of data to provide a coherent and theoretically grounded analysis.

In Botswana, the majority of students and teachers have widely adopted social media, especially Facebook, making use of smartphones as their primary access device; tablets and computers are used far less frequently in this cohort. The use of other portable devices and applications in the classroom, despite their growing integration into personal and professional lives, remains limited (Zhanda, Molokwane & Motshegwa, 2020). The researcher discusses the thinking processes that these groups go through when using social media, shedding light on what characterises and influences these behaviours. The originality of the study is also adduced in this section.

The discussion in this chapter is structured around the five research questions outlined in Chapter 1. These relate to: (1) the status of social media use among senior secondary school students in Gaborone; (2) the ethical issues encountered by students on social media; (3) the ethical dilemmas they face; (4) the ways they make ethical decisions; and (5) the role of parents and teachers in guiding ethical social media use.

6.2 Social media use and ethics

Research question 1: What is the status of social media use amongst senior secondary school students in Botswana?

Since the advent of social media, many young people have been utilising it for various purposes, including entertainment, meeting new people, connecting with friends and family, marketing products, completing schoolwork, staying informed about news, and downloading software. It is evident in this study that social media is not being utilised extensively for educational purposes,

as evidenced by students, teachers, and parents. Most respondents in this study use social media platforms for entertainment and communication with friends and family, rather than for schoolwork. In Botswana, most students begin using social media when they are in junior secondary school, which is between the ages of 13 and 16, and some start as early as primary school. These findings are corroborated by other researchers, such as Mafa and Govender (2018). The most popular social networking sites for students in this study are Facebook, followed by WhatsApp and YouTube. These findings are consistent with those of Basupi and Mhozya (2017).

Mafa and Govender (2018) found, in their study of senior school students in Botswana, that smartphones and related Web 2.0 technologies have, to some extent, augmented teaching and learning, thereby improving academic performance. It is therefore imperative for the government to create an enabling environment—through policy, infrastructure, and digital literacy initiatives that allow individuals, schools, and other institutions to harness the full educational and social benefits of social media platforms. The COVID-19 pandemic highlighted the need for governments to utilise social media tools, as schools found themselves unable to continue teaching and running school programs due to a lack of systems in place. Although some teachers delivered lessons, homework, and notices through social media technologies like WhatsApp, they did so independently and were not supported by the schools.

It is not difficult to notice, though, that the use of ICTs and social media has an ethical or moral dimension to it (Moor, 2006). Engagement with these technologies is fraught with myriad, and perhaps more ethical, potentials and perils than offline engagement, as participants can be anonymous, hide their identity, and leave voluntary groups, games, and online environments at will (James, 2014). Thoughts and decisions about right and wrong activities are constantly taking place on social media platforms. These challenges are on both the side of technology itself, as proponents of Disclosive Ethics (Brey, 2007) and on the side of the users (Light et al., 2008). Although not all challenges encountered on social media are unethical, the results show that students face several ethical challenges when using it.

6.3 Ethical issues in social media use

Research Question 2: What ethical issues are encountered by students in senior secondary schools in Botswana in the use of social media?

It appears that the ethical challenges faced on social media are primarily brought about by the fact that social media users can maintain a degree of anonymity, allowing people to hide their true identities. Respondents admitted that they had experienced this behaviour both from others and themselves when using social media. Respondents in this study identified the issue of hidden identities as the greatest challenge on social media. This is particularly possible with social media platforms like Facebook, where 44% of the students acknowledged having more than one account. Whilst some of the reasons for having more than one account on the same social media platform may be noble, namely to separate business or official content from private and personal content, it may also be done so that they can commit unethical or criminal activities without being identified. Most unethical behaviour on social media platforms includes cyberbullying, stalking, trolling, posting and viewing of illicit and inappropriate materials, including pornography, hate speech, posting of fake news, addiction and even the problem of human trafficking. Some underage users also take advantage of this. These findings are supported by quantitative data presented in Table 5.31, where 43.3% of respondents reported having more than one Facebook account, suggesting deliberate identity masking that can exacerbate ethical challenges, such as cyberbullying, trolling, and stalking. Of course, this is not to say that all ethical problems are associated with anonymity or promoted by it, as social media users can be bold, daring, and rude in posting or doing things that break existing ethical codes of conduct without making any effort to hide their identities. However, anonymity exacerbates problems encountered in social media use, such as hate speech, stalking and hacking.

Misinformation, disinformation, or fake news is a problem that, to a large extent, is facilitated by the anonymity features of technologies. Misinformation and disinformation are closely linked terms that all depict the transmission of wrong, incorrect, or misleading information. The only difference is that the latter depicts misinformation deliberately intended to mislead or deceive, which can be very dangerous. The former “misinformation” may be unintentional, whether through forgetfulness, omission, mishearing, or even misreading. Disinformation and misinformation cause significant suffering, loss of dignity, and safety risks.

In Botswana, publishing false information that may incite public fear or disturb peace is considered a punishable offence under Section 59 of the Penal Code (Botswana Penal Code, 1964). Social media users share untruths for various reasons, and sometimes it is for noble purposes. Many identities online are fictitious. When online deception is intended to safeguard

the author's confidentiality, it is largely viewed as beneficial and receives parental approval (James et al., 2009). However, fictitious identities often give rise to numerous invisible online abuses.

Moor (2006) discusses invisible abuse as the intentional use of a computer's invisible operations to engage in unethical conduct. Moreover, the developments in the social media landscape, like those in all computer technology, have led to policy gaps, and many countries have responded to this need to ensure that policies keep pace with emerging issues. Unfortunately, as technology constantly evolves, new challenges continue to emerge. New laws, codes of conduct, and terms of use for social media platforms need to be promulgated by various countries, and existing ones have been revised accordingly. In Botswana, the Cybercrime and Computer Related Crimes Act (Act 22, 2007) was enacted to combat cybercrime, suppress offences committed through digital means, and facilitate the collection of electronic evidence (Government of Botswana, 2007). Additionally, the Botswana Electronic Communications and Transactions Act (2014) and the Data Protection Act (DPA) (2018) were also introduced to address online abuses. However, these laws require a careful balance to ensure they are enforced without infringing on citizens' online freedoms (Paradigm Initiative, 2021).

Privacy remains a prominent topic whenever social media technologies are discussed. Older people, institutions and governments worry that young people these days are oversharing on social media. Sometimes, adults can also fall into this trap. James et al., (2017) point out that occasionally social media users give out much information on the platforms not because they do not know how to utilise the privacy settings provided on the platforms to their advantage, but because somehow, they believe that whatever they post will end up being seen by those the messages are intended for though, this is not the case most of the time. Young people often endanger themselves and others "by failing to understand the persistence of, searchability of, replicability of, and invisible audiences for the information that they share about themselves online" (James et al., 2017, p. 40).

Once something is posted on social media platforms, the entire world can see it. In most cases, it cannot be retracted, as content is easily copied, forwarded, and even captured in screenshots on these platforms. Renowned South African social media specialists Sadleir and Harrison (2017) warn social media users not to let digital content exist if they would not put it on a billboard in

the area where they live, and ask them to imagine that billboard displaying not only their content, but also their name, the name of the school and a massive photo of their face. Unfortunately, very few youngsters heed this and sometimes adults too. On the contrary, they seem to think that their screens protect them and believe that this information is seen by those it is intended for. However, it is not always the case, as data on social media is accessed by many more people, which raises the risk of others using this information without permission, and sometimes for malicious purposes, such as identity theft. For example, respondents in this study noted that they have experienced stalking, whereby people follow them secretly and endanger them.

Disclosure on social media entails benefits, risks, and ethical implications. There is no doubt that cautious and knowledgeable sharing is motivational and empowering to young people. Troubled youths find communities where they can fit in and receive support, and they are encouraged to respect the privacy ethics of others. However, it's also true that careless oversharing can have lasting adverse effects on the young and their networks. Another ethical concern is the issue of privacy. Social media users often overshare, disclosing every detail of their lives and movements. Large-scale data collection on social media platforms typically involves gathering sensitive personal information, including location data, browsing history, and purchasing habits. This information can be used to create detailed profiles of individuals, which can then be exploited for identity theft, targeted advertising, or other malicious purposes (Dhiman, 2023).

The issue of property ownership, one of the four pivotal ethical issues mentioned by Mason (1986), is also explored in this study. In Botswana, the Companies and Intellectual Property Authority (CIPA) has three branches: the Companies and Business Names Office, the Industrial Property Office, and the Copyright Office. The Copyright Society of Botswana (COSBOTS), established in 2008 as a Private Company and authorised under the Copyright and Neighbouring Rights Act, CAP 68:02, manages licenses and collects royalties for protected works, including photography, theatre, movies, audiovisual works, literature, and music (ARIPO, 2016). Acts like these, though, have been promulgated for the physical rather than the online environment.

Many social media users make their work or intellectual property available online, but do not copy it, and many young people are unaware of how to protect their intellectual property online. At the same time, many may shun collaboration for fear of not getting proper recognition for the work they feel they are responsible for or be tempted to claim other products as their own. Yet,

they could benefit by becoming tomorrow's innovators, combining their resources, skills and talents for the greater good (James et al., 2009). In this regard, in relation to school environments, they highlighted the importance of fostering meaningful conversations among teachers and students about authorship, ownership, and fair use in the online environment. A robust discussion in this regard may be lacking in some respects, considering that social media use is not permitted in senior secondary schools in Botswana.

More than half of the respondents acknowledged having used information or images without permission. This may be because social media users are unaware of copyright laws and inadvertently infringe on them. However, it is also possible that they are aware of the laws and somehow believe they can get away with it. Closely linked to this is the fact that social networking sites tend to promote plagiarism, as many copied materials are posted on the platforms. It is common practice to use other tweets, pictures, comments, and other content without acknowledging that they are not the original ideas of the author and depicting them as their own. It is extremely challenging to control information once it is posted on social media platforms. As a result, it is easy for some people to take others' content and pose it as their own. Whilst it is this easy in the online world, it is not equally easy in the physical realm.

Results of this study show that bullying is a problem that is experienced by senior secondary school students in social media use, but on a small scale. However, the results of this study may not accurately reflect the true extent of the problem, as phones and social media are not allowed in schools. Unlike in physical environments, where it may be easy to identify and address matters of bullying, it is challenging to detect bullying in online environments (Demers & Sullivan, 2016). Schools and teachers in Gaborone deal with the few cases that are reported to them or that they identify online when they monitor senior secondary school students. Young people often respond to parental surveillance by trying to encrypt their content and obscure the meaning (Boyd, 2014) in the guise of safeguarding their privacy. This would mean that even in instances where bullying is taking place, it may not be transparent. This also raises the moral question of whether adults, such as teachers and parents, are justified in conducting surveillance of children's activities without their permission, sometimes without their knowledge, so that senior secondary school students may be reluctant to interact with them online or do not want them to monitor their activities.

Although the results of this study indicate that the problem of bullying is not widespread, it remains a concern that warrants attention from schools, social media companies, and parents, as it may have far-reaching negative consequences for those it is directed at, raising ethical concerns. Those who experience this can experience problems such as low self-esteem and fear, and some of them end up committing suicide, while others perform poorly in school. The incident infringes upon the affected child's sense of dignity. The unfortunate part of all this is that some of these consequences of online bullying may not necessarily be directly attributed to social media use, especially when the use is restricted.

The access and posting of inappropriate materials on social media in the form of pictures, photos, videos, pornographic images, text and in other forms is a matter of concern these days. Results show that students in Botswana often access pornographic material on social media. This leads people to argue against social media, and some even start to believe that nothing good comes out of social media use or that it is of no benefit at all. This thinking may be incorrect, as many benefits can be reaped from social media use, including assistance with schoolwork, communicating with friends and family, staying informed about news, learning various tips and crafts, and marketing, among others.

The primary concern is that social media use enables anonymity to a great extent, which can be facilitated by the use of phones that are easily hidden and portable, thereby exacerbating this problem. Some students encounter inappropriate materials accidentally, while others actively search for them (WebMD health news in Palfrey and Gasser, 2016). This raises moral questions, as it affects the behaviour and ethical conduct of senior secondary school students, and their overall moral development (Masrom et al., 2013; Sadleir & Harrison, 2017).

One of the ethical challenges that students face when using social media, as revealed in this study, is the excessive time they tend to spend on social media. Although the use of mobile phones and social media is prohibited in schools in Botswana, the reality on the ground is that students are using social media excessively. The problem is that most of them do it covertly. Some respondents actually revealed that they use it frequently, both in school and outside of school. Additionally, some teachers admitted to using social media frequently, both inside and outside working hours. Tsholetso, Maunganidze and Faimau (2017) and Basupi and Mhozya (2017) made the same observation amongst secondary school students in Botswana. Amongst

other responses, Mafa and Govender (2018) highlighted that when asked about challenges with using Web 2.0 tools with their smartphones, respondents acknowledged that one of the challenges they faced was addiction. Clearly, there are signs of social media addiction evident in the study. Some students reported spending excessive amounts of time online, even during school hours, and expressed difficulty concentrating on academic tasks due to constant notifications. Others admitted to checking their phones immediately upon waking or feeling anxious when unable to access social media platforms. Similarly, a few teachers noted that learners often appeared distracted in class or discussed trending online content more than the lesson at hand, suggesting a compulsive pattern of usage.

Bhargava and Velasquez (2020) in their article express that social media companies commonly design their platforms in a way that renders them addictive through the use of intermittent variable rewards (or what is sometimes called the slot machine effect) (Griffiths, 2018; Harris, 2019; Williams, 2018; Wu, 2016); design features that take advantage of our desires for social validation and social reciprocity; and platform designs that corrode natural stopping signals and users scroll endlessly. They call on scholars, policy makers and the managers of social media companies to treat social media addiction as a grave moral issue, arguing that while the benefits of social media are notable, social media addiction raises distinctive ethical concerns not raised by other, more familiar addictive products, such as alcohol and cigarettes.

When senior secondary school students are deprived of sleep, it leads to aggressive and antisocial behaviour (Palfrey & Gasser, 2016; Sargolzaei & Nikbakht, 2017), and their schoolwork suffers as a result. When teachers also spend too much time on social media, including the time they are supposed to be working, they deprive students of teaching and monitoring time. When a teacher is distracted and unable to monitor students, they can get involved in inadmissible behaviour. If teachers are deprived of sleep, they may not perform their duties effectively, which in turn impacts students' performance.

Whilst general internet addiction has been studied extensively, there have been fewer studies on social media addiction. Results of this study also show that social media addiction exists, but it is difficult to determine the extent of the problem since social media use and phone use are not allowed in schools. The fact that most social media users in these cohorts use it on their smartphones, which are much more portable than any other gadget used for social media access,

including tablets, laptops, and desktop computers, exacerbates the problem. Cellphones can be easily concealed and sneaked into class by both teachers and students. This also makes it possible for users to use it consistently.

Bhargava and Velasque (2020) argue that the harms associated with social media addiction are substantial moral injuries, as they affect a person's life, health, senses, emotions, practical reason, affiliation, and play, thereby assaulting the crucial requirements of a life with dignity and rendering it morally wrong. Moor (1985), discussing the ethical issues raised by social media technologies, talked about 'invisible abuse', which he described as the intentional use of the undetectable operations of a computer for unethical conduct.

It is possible that although only a small fraction of respondents admitted to using social media consistently and showed signs of overuse, many did not admit to it due to fear of reprisals, as the use of social media is prohibited in schools. It is possible that the results could be an understatement of the accurate depiction.

Table 6.1: Linear regression- Ethical issues

Predictor Variable	Unstandardised Coefficient (B)	p-value	R Square
Ethical Issues (ETI)	0.749	0.000	0.141

Source: Table 5.9 (Chapter 5)

As shown in Table 6.1, a simple linear regression was used to test whether Ethical Issues (ETI) predict the outcome variable in Chapter 6. ETI is a positive statistically significant predictor ($B = 0.749$, $p < .001$), and the model explains 14.1% of the variance ($R^2 = 0.141$)—a small to moderate effect. Practically, for each one-unit increase in ETI (on its original scale), the outcome is expected to rise by about 0.75 units, holding other factors constant.

Findings showed that students encountered ethical issues, including privacy breaches, misinformation, and unauthorised use of digital content. These are strongly aligned with Mason's (1986) PAPA framework, which emphasises Privacy, Accuracy, Property, and Access as key ethical challenges in information technology use. For instance, the frequent sharing of music and

videos without attribution reflects breaches of intellectual Property, while issues of misinformation connect directly to Accuracy. These categories offer a useful lens through which to interpret the types of ethical challenges students encounter online.

Importantly, regression analysis revealed a statistically significant relationship between ethical issues and ethical dilemmas, with a beta coefficient of 0.749 ($p = 0.000$), indicating that a unit increase in exposure to ethical issues predicts a 0.749 unit increase in the likelihood of encountering ethical dilemmas (Table 5.9c). This finding confirms the hypothesis that ethical issues significantly influence the occurrence of ethical dilemmas and supports the explanatory power of the ethical issues index (ETI), which accounted for 14.1% of the variance in ethical dilemmas (Table 5.9a).

As shown in Table 5.9 (Chapter 5), cyberbullying, inappropriate language, and hate speech were ranked among the top challenges faced by students. These ethical concerns, ranging from anonymity and cyberbullying to data misuse, are statistically linked to the likelihood of students experiencing ethical dilemmas. Quantitative evidence complements the qualitative findings, confirming that ethical issues significantly shape the moral landscape of senior secondary students' social media engagement.

6.4 Ethical dilemmas of social media use by students

Research Question 3: What ethical dilemmas do students encounter when using social media?

The undeniable fact is that social media use has brought with it ethical dilemmas to ponder upon. Neglecting the ethical aspect of social media will lead to many problems in society. Ethical dilemmas in this study have been defined as “problems for which no choice seems completely satisfactory, since there are good, but contradictory reasons to take conflicting and incompatible courses of action” (Mullen et al., 2017, p. 37). The results of this study indicate that students in senior secondary schools in Gaborone encounter ethical dilemmas while utilising various social media platforms, including WhatsApp, Facebook, YouTube, and Twitter. A person can go through an ethical dilemma without recognising it as such, and even those who say they do not experience ethical dilemmas may be unaware that they are going through one when they do. However, there is no tool at the students' disposal that they can turn to when they face such a dilemma. Students often resort to various methods to resolve these ethical dilemmas.

Quantitative results confirmed that ethical dilemmas have a positive and significant influence on ethical decision-making. The regression model showed that the ethical dilemma index (EDS) was a strong predictor of decision-making (DMG), with a standardised beta coefficient of 0.419 and a significance level of $p < 0.001$. This supports the rejection of Hypothesis 2 (H_2), affirming that students' experiences of ethical dilemmas significantly shape how they make decisions online. This quantitative finding substantiates the qualitative responses, in which students described grappling with difficult choices related to privacy, peer pressure, and misinformation.

This study reveals that several factors influence respondents' ethical reasoning when encountering ethical dilemmas in social media interactions. The WSIS (2003, 2005) Action Line 10 highlights the importance of ethics in the information society, promoting values such as human rights, dignity, truth, privacy, respect, honour, and the preservation of life. This resonates with the finding that students often rely on values such as respect and dignity, both core to WSIS and traditional Setswana culture, when navigating challenging digital scenarios. These ethical principles are viewed as universal, transcending time, geography, and cultural boundaries. Notably, several of these values, especially respect, resonate with traditional Setswana cultural virtues. When asked how they respond to ethical dilemmas, a substantial number of respondents mentioned that the virtue of respect guides their decisions. The findings suggest that many respondents evaluate the appropriateness of their posts and interactions based on the principle of respect, taking into account how their online behaviour may impact both others and their own self-image.

Researchers have employed various theories in studying new information and communication technologies, which are elaborated upon in Chapter 2. Several theoretical models were drawn upon to interpret the study's findings. The Theory of Planned Behaviour (Ajzen, 1991), for example, helps to explain why some students, despite knowing what is ethically right, still engage in questionable online behaviour. Their actions were often influenced by perceived social norms, particularly peer pressure, and their sense of control over the situation. For instance, some participants admitted to reposting harmful content even though they believed it was wrong, citing fear of being left out or pressured by group dynamics.

The Uses and Gratifications Theory (Katz et al., 1973) is also relevant, especially in explaining the motivations behind students' social media use. Findings revealed that learners utilised

platforms to fulfil a range of needs, including entertainment, social connection, self-expression, and academic assistance. However, these motivations sometimes led to ethical tensions, such as oversharing or spreading misinformation, in the pursuit of online gratification.

Rest's Four Component Model of Moral Development (1986) further provides insight into students' ethical decision-making processes. Many participants displayed moral awareness—they could identify when something was ethically questionable, but fewer showed moral judgment or the capacity to reason through the dilemma. Even fewer seemed to act on those judgments, indicating a gap between ethical recognition and ethical behaviour. This gap was particularly evident in responses related to cyberbullying, misinformation, and digital privacy.

Finally, Mason's (1986) PAPA model—which focuses on the ethical dimensions of Privacy, Accuracy, Property, and Access—resonated strongly with the issues identified in the study. Students raised concerns about sharing personal information, copying content without permission, and encountering false information online. These concerns align with the core components of the PAPA model, suggesting that these four pillars remain highly relevant in understanding the ethical challenges faced by students in the digital era.

This study was underpinned by the Potter Box Model, classical normative ethics (deontology, consequentialism, and virtue ethics), *Botho*, and the WSIS framework. Other tools have been developed, such as the Navigation Wheel, developed by Kvalnes and Øverenget (2012), which aims to provide a systematic framework for analysing ethical dilemmas related to social media use. The Navigation Wheel is referenced as complementary literature, rather than a core analytic framework, in this thesis. An essential constituent of this framework is that it guides decision-makers through a process of considering questions regarding law (is it legal?), identity (is it in accordance with our corporate or professional values?), morality (is it in line with our convictions and beliefs about right and wrong?), reputation (does it affect our goodwill?), economy (is it profitable?) and ethics (can we justify it using ethical principles and theories?) (Kvalnes, 2020). In this study, the Navigation Wheel is discussed as a potential teaching/implementation tool in academic and organisational settings, rather than as the primary lens for data analysis. Given the technology-specific context of social media, it is noted that many imported decision tools arise from other fields and may require adaptation for digital environments.

While the Navigation Wheel is particularly suited to social media ethics, it was not adopted as a core theoretical framework for this study. This is because the research focused on understanding students' natural reasoning processes rather than prescribing a step-by-step decision-making tool. In contrast, the Potter Box Model and Rest's Four Component Model offered more flexible, developmental, and explanatory lenses through which to explore and interpret how students make sense of online ethical dilemmas. The Navigation Wheel was therefore acknowledged but not applied in detail, as it did not align as closely with the study's aim to understand rather than guide ethical behaviour.

Most respondents in this study acknowledged experiencing quandaries relating to rights to access information and ensuring safety and security online. On the one hand, students understand that human beings have the inherent right to access information that can assist them in making informed decisions and avoiding danger, as well as the fact that they need to be seen to support access to information. On the other hand, providing information to promote this goal may leave them vulnerable to security risks, potentially putting them in danger. There are instances where giving out information may compromise one's safety and security. For example, where students have provided their actual dates of birth as required by social media platforms, some may use those details to hack phones and banking systems, stealing from them. These are some of the reasons why social media users sometimes misrepresent information about themselves. However, some misrepresent information about themselves in order to commit a crime. And yet, there are no tools that guide students through a prescribed thinking process, helping them to follow the best option.

Sometimes, rights to access information have also led to privacy violations. Whilst one provides information to ensure that those who have the right to access it do so, there is also an infringement on one's privacy on the other hand. This involves situations where students must provide information about themselves as well as others. Unlike the general view that youths do not care about privacy and tend to share too much information on social media, Boyd (2014) states that the youths she met whilst engaging in her ethnographic study were genuinely concerned about their privacy. How they comprehend and express privacy may not immediately make sense to adults, as they usually seek privacy to "avoid surveillance from parents, teachers, and other immediate authority figures in their lives, they want the right to be ignored by the people who they see as being "in their business" (Boyd, 2014, p. 56). Senior secondary school

students often feel the need to make their social media posts accessible to their peers, but at the same time, they are constantly worried about their parents, teachers, and schools accessing that information. This sometimes prevents youths from posting what they would like to share with their peers to see and engage with.

This researcher assumed that the young people in this study may be victims of privacy breaches mainly because they lack skills in utilising privacy settings. This may be because social media use is not encouraged in schools, which implies that senior secondary school students lack hands-on education from teachers and other social media specialists on the proper and safe use of social media. However, this study aims to identify ethical issues and dilemmas, as well as how they might be addressed.

Respondents in this study sometimes faced dilemmas about whether, during their social media engagements, they should choose to adhere to the rules of their schools or exercise their freedom of expression and other human rights. While there are rules that students must adhere to for every school in Botswana, which are usually outlined in the school prospectus, these rules tend to be general and are mainly applicable to the physical world rather than the online environment. They also tend to be ineffective in guiding pupils on how to conduct themselves when engaging with social media. Therefore, students may not receive the necessary assistance in addressing the ethical dilemmas they encounter online. Some of the dilemmas that students face involve school norms and rules, as well as human rights, including freedom of speech and freedom of expression. Generally, students tend to express themselves more freely online than they do in the physical world.

Senior secondary school students in Botswana are aware that they have the right to free speech, as espoused in the UN Human Rights. The results of this study indicate that respondents tend to prioritise respecting the rights of others, as outlined in the UN Human Rights Declaration, which is the option that yields the greatest good.

While many students expressed intentions to act ethically, their actual behaviour was often inconsistent. The Theory of Planned Behaviour (Ajzen, 1991) explains this through its focus on behavioural intention, which is influenced by attitudes, subjective norms, and perceived behavioural control. For example, although some students believed that it was wrong to share private content, they admitted doing so when pressured by friends or when unsure if it was ‘a big

deal.’ These findings collectively highlight a gap between ethical awareness and action, suggesting a need for structured tools or interventions that support students in translating their ethical intentions into ethical behaviour. This affirms the usefulness of models like Rest’s Four Component Model and the Potter Box in explaining not only what decisions are made, but also why students make them in the way they do.

6.5 Ethical decision-making by students

Research Question 4: How do students make decisions to resolve ethical dilemmas they encounter on social media?

The fourth research question aimed to investigate how students in senior secondary schools make decisions when faced with ethical dilemmas on social media platforms. Findings from both the questionnaires and interviews with students indicate that ethical decision-making among students is shaped by a confluence of factors, including personal moral values, peer influence, social norms, perceived consequences, and, in some cases, the availability of guidance from adults, such as teachers and parents. These factors were also validated through statistical analysis. As shown in the multiple regression analysis in Chapter 5 (Table 5.15), ethical dilemmas were a significant predictor of ethical decision-making, with a beta of $\beta = 0.419$ and $p < 0.001$. This supports the rejection of Hypothesis 2 (H_{02}) and confirms that students’ navigation of dilemmas has a substantial impact on their ethical decision-making.

A considerable number of students reported that when faced with dilemmas such as whether to share private information, engage with strangers, forward inappropriate content, or copy material for school assignments, they relied largely on their “own judgment,” “what felt right,” or what “seemed okay.” This suggests that while many students can recognise ethical issues, their ability to reflect deeply and reason through moral conflicts may be limited. The findings align with Rest’s Four Component Model (1986), which suggests that moral sensitivity does not always lead to moral action, particularly if a framework for judgment and motivation does not support the latter.

When viewed through the lens of the Potter Box Model (Potter, 1965), the majority of students appear to operate at the first two levels: defining the situation and identifying the values involved. For instance, when asked how they would handle a situation where a friend shares private images of another person, many students were able to define it as “wrong” or “harmful”. However, they

struggled to articulate a consistent ethical principle to guide their action. Very few students referred to abstract moral theories or rules such as fairness, justice, or respect for rights, suggesting a gap in principled reasoning. Furthermore, their decisions were often guided by loyalties, especially to peers, rather than to abstract principles or broader ethical duties.

The influence of peer norms was particularly strong, with some students noting that they would “do what others are doing,” or that “if it’s normal in the group, then it’s probably okay.” While this demonstrates a sense of belonging and the desire for social acceptance, it also raises concerns about the potential for ethical relativism in digital spaces. Peer-driven moral reasoning may inadvertently lead to normalising unethical behaviour such as cyberbullying, unauthorised sharing of content, or digital harassment, particularly in the absence of adult intervention.

Moreover, decision-making often occurred in a reactive rather than reflective manner. For example, several students admitted to reposting or forwarding messages “without thinking,” only to regret their actions later when consequences became apparent. This is consistent with Watley’s (2014) observation that young people tend to make intuitive decisions that are rationalised after the fact, particularly in fast-paced, emotionally charged online environments.

Encouragingly, a small proportion of students reported that they would seek advice from trusted adults, such as teachers or parents, or search online for guidance when unsure about what to do. However, these responses were in the minority, and even among those students, the support systems appeared to be informal rather than structured. There was also limited awareness or mention of school codes of conduct, ethical guidelines, or digital citizenship training, highlighting a missed opportunity for systematic moral scaffolding in the school environment.

Additionally, the correlation between students’ decision-making and moral support from parents and teachers was statistically significant ($r = 0.36$, $p < 0.01$), with regression analysis indicating that moral support predicted decision-making ($\beta = 0.315$, $p < 0.01$), leading to the rejection of Hypothesis 3 (H_{03}). However, the moderation effect of moral support on ethical decision-making and ethical breakthrough was not supported, suggesting that while guidance from adults matters, it may not be sufficient without formal ethical education.

The literature (e.g., Harrison-Evans & Krasodonski-Jones, 2017; Palfrey & Gasser, 2016) supports the notion that youth require structured, values-based education to build digital literacy

and ethical resilience. The findings from this study suggest that while students possess a basic moral compass, they would benefit from greater exposure to ethical decision-making models such as the Potter Box. Such models provide a structured approach that encourages critical thinking, clarifies values, and helps students weigh competing interests in a principled manner.

In summary, students' decision-making in ethical dilemmas on social media is often guided by internal values, peer norms, and emotional responses, but lacks systematic reasoning or reference to formal ethical principles. Embedding ethical decision-making frameworks into the moral education curriculum—particularly through tools like the Potter Box—can enhance students' capacity to make more informed, responsible, and justifiable decisions in the digital sphere.

Students' responses indicated that while many recognised moral issues (moral sensitivity), fewer were able to articulate sound reasons for their actions (moral judgment), and even fewer expressed confidence in acting according to those judgments (moral motivation and action). This pattern closely mirrors the stages in Rest's Four Component Model of moral development. For example, several students stated that although they knew reposting hurtful content was wrong, they did it anyway because '*everyone was doing it*' or they '*didn't think twice*.' These responses illustrate a gap between moral awareness and moral action. The combination of self-reported behaviours and quantitative relationships highlights the need for structured, theory-based ethical education that not only raises awareness but also enables action, thereby bridging the gap between moral sensitivity and moral behaviour.

6.6 Role played by parents and teachers

Research Question 5: How do parents and teachers assist students to resolve ethical dilemmas on social media?

Social media is important for both socialising and learning. While studies in Botswana have shown an increase in social media use for socialising, much still needs to be done to promote social media use for learning. The extensive use of social media networks in Botswana presents an opportunity to integrate social media into teaching and learning, given the numerous benefits it can offer, including an enabling environment for onsite and offsite learning, also known as blended learning (Zhanda et al., 2020). However, this has not been the primary occurrence. The results of this study reveal that a large proportion of teachers in senior secondary schools do not

provide students with the necessary support when navigating social media, although parents play a more significant role than teachers.

More ways may need to be explored for utilising social media to enable and enhance learning. Teachers and parents both have an essential role in ensuring that social media is used effectively for learning and socialising, and that all use is ethical. If teachers and parents are at the forefront of this revolution, it will help users, especially young people, including high school students, ethically engage with social media technologies. They are responsible for teaching young people how to behave ethically. This is because, traditionally, ethical conduct has been mainly the domain of teachers and parents from a very young age.

This study revealed that neither parents nor teachers play an active role in helping students utilise social media or address the ethical dilemmas they face daily. Quantitative findings confirmed this pattern. As shown in Table 5.14, only 18.9% of students reported receiving guidance from teachers when facing ethical challenges on social media, while 24.2% reported receiving help from parents. These low figures are consistent with interview findings from teachers and parents, where most admitted to having limited digital skills and confidence in guiding students through ethical challenges. For example, one teacher remarked, *“I don’t really understand these platforms well enough to advise,”* while a parent stated, *“My child knows more than I do.”* This is an anomaly as both teachers and parents have played a vital role in the training and teaching of children in all aspects of life, and this begins at the early stages of their lives and is embedded throughout their lives (Alakurt et al., 2012; Harrison-Evans & Krasodonsky-Jones, 2017; Palfrey & Gasser, 2016). Societies are well-equipped with knowledge that is passed down from generation to generation, teaching young people about the virtues that enable them to coexist. Because the positive role of teachers and parents in the lives of children is well documented, there has been a call by others (Harnchanchai, 2015; Palfrey & Gasser, 2016; Willard, 2007; Yardi, 2012) for parents and teachers to play a more active role in the adoption and use of Information and Communication Technologies, including social media.

Information and communication technologies have been available for a while, but there are disparities in how societies and individuals have accessed and benefited from them. This “digital divide” is not only about access but also about capability—a concept aligned with Nussbaum’s (2003) capabilities approach, which emphasises not only having tools but knowing how to use

them meaningfully. In the context of ethical decision-making, a lack of support from digitally literate adults can deprive students of the moral scaffolding they need to navigate complex dilemmas. This is evident in the fact that, although 63% of the global population utilised the Internet in 2021, access to and opportunities in digital development remain out of reach for many people, particularly those in greatest need (UN General Assembly, 2023). The proportion of Internet users in the least developed countries is 27%, less than half the global average (UN General Assembly, 2023). Initially, the primary focus of governments everywhere was access. Many people, including parents and teachers, have not had access to these ICTs and the skills on how to use and utilise them for the benefit of society. Regarding access issues, Botswana is a shining example, as it leads many other countries by the strides it has made in closing the access gap on the continent.

Botswana stands out on the continent, with 81.4% of individuals online (as of 2023), 68.9% of households connected (as of 2024), and mobile subscriptions at roughly 185 per 100 people, far exceeding Africa's average Internet use of 37–38%. It is encouraging to note that Botswana has adopted an ecosystem-based approach that envisages broadband as an ecosystem made up of high capacity, high speed and quality electronic networks, the services carried through the networks, the applications they deliver, the users taking into consideration the continuous evolution of technologies, applications and user needs for service (National Broadband Strategy, 2018, p.7). Mobile broadband coverage has increased significantly as mobile network operators expanded 3G and 4G coverage nationwide, following the acquisition of International Mobile Telecommunications (IMT) spectrum and funding from the Universal Access and Service Fund (UASF) in Botswana. This has resulted in tremendous strides in closing the access gap as mobile broadband increased from 1,523,545 in March 2018 to 2,435,485 in March 2022 (Bocra Annual Report 2022). This has made Botswana a shining example on the continent, as the 'access' issue has largely been addressed (Lebele, 2016; UNESCO, 2015)

More still needs to be done to improve the skills required to fully utilise information technologies. The regression analysis in Chapter 5 further underscores this point. While moral support was found to significantly predict ethical decision-making ($\beta = 0.315$, $p < 0.01$), the study also showed that support from teachers and parents is not systematised. Hypothesis 3 (H_{03}) was rejected, indicating that while moral support matters, its current fragmented and informal form is insufficient. Students' low trust in adults as digital guides was evident in qualitative

responses such as *“I rely on my friends or online advice instead.”* This need is evidenced by the limited role parents and teachers play in the young people’s use of these technologies. In this study, parents and teachers acknowledge having limited skills in using social media. As a result, they are not in a position to assist senior secondary school students when they encounter ethical dilemmas related to social media use. However, for these technologies to be beneficial, they must be used ethically.

Collectively, the findings of this study validate and extend the applicability of several theoretical models in understanding ethical behaviour in digital environments. While the Potter Box model provided a comprehensive structure for assessing students’ ethical reasoning, models such as the PAPA framework, the Theory of Planned Behaviour, and Rest’s Four Component Model allowed for a deeper interpretation of specific patterns in student behaviour. These theories, when used in conjunction, provide a multidimensional lens through which the ethical challenges and reasoning processes of students on social media can be understood.

These findings echo earlier responses in Chapter 5, where the majority of students reported minimal engagement with teachers or parents in ethical matters related to social media. One participant stated, *“My parents don’t understand how social media works, so I just figure things out myself.”* This underlines the urgent need for targeted digital ethics training for both teachers and parents.

In summary, both qualitative and quantitative results indicate that while teachers and parents recognise their responsibility to support students, they are currently under-equipped to fulfil this role in the digital realm. This reflects a significant gap in ethical literacy. Addressing this gap requires targeted training in digital citizenship and ethics for both groups, aligned with WSIS principles of shared responsibility and digital dignity. Without this investment, students will continue to face ethical dilemmas without adequate guidance from adults, thereby undermining efforts to foster safe and ethical digital communities.

6.7 Discussion of hypotheses

This discussion interprets the outcomes of the theory-driven hypotheses stated in Chapter 1 (H1–H5) and tested in Chapter 5. A consolidated overview is presented in Table 5.28 (Section 5.7.5), which indicates whether each hypothesis is supported, not supported, or exploratory/not tested, along with the relevant statistics. The hypotheses are grounded in a conceptual framework that

combines the Potter Box Model, classical ethical theories (deontology, consequentialism, virtue ethics), *Botho*, and the WSIS values framework, and were examined primarily through correlation and regression analyses.

H1 (Ethical issues → Ethical dilemmas). Supported ($p < .01$). Greater exposure to ethical issues (e.g., privacy breaches, misinformation, and cyberbullying) is associated with more frequent ethical dilemmas among students. This corroborates the Potter Box's first step—problem definition—and resonates with PAPA focal areas (privacy, accuracy, property, access).

H2 (Ethical dilemmas → Ethical decision-making). Supported ($p < .001$, $r \approx .52$). Dilemmas significantly predict students' ethical decision-making scores, consistent with Rest's Four-Component Model linking moral sensitivity to judgment and motivation.

H3a (Moral values → Ethical decision-making). Status: not isolated in this study. Although moral values entered the multivariate model as a composite, their independent/direct effect was not decomposed; qualitative accounts nevertheless emphasised respect, truthfulness, responsibility, and related *Botho* virtues.

H3b (Moral support → Ethical decision-making). Supported ($\beta \approx .32$, $p < .01$). Perceived support (parents/teachers) positively predicts ethical decision-making, aligning with WSIS Action Line priorities on values-based education and supportive eco-systems.

H4–H5 (Moderation by moral support/values). Exploratory—not tested. Interaction effects were not modelled; future analyses should test moderation (e.g., interaction terms, SEM) to determine whether support and values condition the link between dilemmas and decisions.

Overall, the data support H1, H2, and H3b, affirming that ethical issues are linked to dilemmas, dilemmas predict decision-making, and moral support contributes positively to ethical choices. The moderation questions (H4–H5) remain open and motivate follow-up work using decomposed value indices and interaction modelling. These results are consistent with the study's conceptual framework, highlighting both the mediating role of dilemmas in ethical reasoning and the enabling influence of external moral agents (teachers/parents) on students' digital conduct.

6.8 Limitations of the study

While this study offers valuable insights into the ethical challenges students encounter when using social media, several limitations must be acknowledged. First, the study focused on a specific geographical context—public senior secondary schools in Gaborone, Botswana. As such, the findings may not be generalisable to students in other regions, rural areas, or private schools, where access to digital technologies, cultural norms, and school policies may differ significantly. Second, the study relied on self-reported data from questionnaires and interviews. As with most self-reporting methods, there is a risk of social desirability bias, particularly given that mobile phone and social media use are often prohibited in schools. Some students may have underreported their engagement with unethical behaviour or overreported socially acceptable conduct for fear of reprisal or judgment. Third, the study was cross-sectional and did not explore how students' ethical reasoning might evolve over time or in response to interventions. A longitudinal design would enable the tracking of changes in moral decision-making and the impact of digital literacy initiatives. Fourth, while the study aimed to capture perspectives from teachers and parents, the level of participation from these groups was limited. A broader and more diverse sample may have yielded richer insights into their roles and challenges in supporting students' ethical use of social media. Lastly, the research did not include direct observation of online behaviour due to ethical and privacy constraints. As such, some conclusions are based on reported experiences rather than verified activity, which may affect the accuracy of the reported behavioural patterns.

These limitations do not diminish the relevance of the findings; rather, they highlight areas for future research and methodological refinement.

6.9 Chapter summary

This chapter presents a comprehensive discussion of the study's key findings, drawing on theoretical models, existing literature, and the lived experiences of senior secondary school students, teachers, and parents in Gaborone. Framed around the five research questions, the discussion explored the use of social media by senior secondary school students in Botswana, ethical issues, dilemmas, and decision-making processes that define students' engagement with social media, as well as the roles of teachers and parents in addressing these challenges.

The study found that students face a range of ethical issues on social media, most notably those related to privacy, misinformation, digital ownership, and oversharing. These challenges were interpreted through Mason's (1986) PAPA model, demonstrating that the core concerns of privacy, accuracy, property, and access remain relevant in the current digital environment. While students are highly engaged with social media, their awareness of ethical boundaries is uneven and often shaped more by peer norms and emotional responses than by formal codes or principled reasoning.

Students also reported experiencing numerous ethical dilemmas, particularly when their personal values, school rules, and peer expectations conflicted. Many lacked access to structured ethical guidance, instead relying on instinct, peer input, or withdrawal. The application of Rest's Four Component Model (1986) and the Theory of Planned Behaviour (Ajzen, 1991) helped to illuminate the psychological and social mechanisms that shape such decisions. These models also highlighted the gap between moral awareness and action, particularly in online contexts that are fast-paced, emotionally charged, and challenging for adults to monitor.

The findings further indicated that while students are not entirely without ethical reasoning, their decision-making often lacks consistency, depth, and a grounding in ethical principles. Tools such as the Potter Box Model offer valuable scaffolding to help students move beyond reactive decision-making and engage in a more structured moral evaluation of online dilemmas. However, such tools are not yet present in the ethical education provided to them.

Moreover, the roles of parents and teachers were found to be limited in scope and effectiveness. Although both groups have traditionally served as moral guides, their ability to support students in the digital domain was found to be constrained by limited digital skills, lack of involvement, and the absence of formal school policies on social media ethics. These findings reinforce existing calls in the literature for the inclusion of parents and teachers in digital ethics training and policy development.

Finally, the study's hypotheses were partly supported (H1, H2, and H3b), affirming that students do face ethical challenges online, that their decision-making is complex and context-dependent (with dilemmas predicting decisions), and that adult support contributes positively yet remains limited, especially from teachers. At the same time, the study's limitations, including its urban

focus (on Gaborone schools) and reliance on self-reported data, as well as the fact that moderation hypotheses (H4–H5) were not tested, suggest avenues for future research.

In conclusion, ethical engagement with social media among youth is both a growing necessity and a developmental opportunity. With the right educational interventions, grounded in theory and responsive to context, it is possible to nurture students who not only use social media skillfully but also ethically.

CHAPTER SEVEN

SUMMARY, CONCLUSION AND RECOMMENDATIONS

7.1. Introduction

This chapter provides a summary of the study, presents consolidated conclusions that answer the research questions, and offers recommendations derived from the research findings, the literature gaps, and the study limitations. The chapter also proposes directions for future research. The study explored the ethical dilemmas students in four public senior secondary schools in Gaborone, Botswana, face in their use of social media, how they navigate these dilemmas, and the roles parents and teachers play in guiding them.

The purpose of this study was to explore the ethical dilemmas that senior secondary school students in Botswana face while using social media and to examine how these dilemmas are resolved. The study also endeavored to investigate the role of parents and teachers in resolving these dilemmas. The following research questions directed the study:

1. What is the status of social media use amongst senior secondary school students in Botswana?
2. What ethical issues are encountered by students in senior secondary schools in Botswana in the use of social media?
3. What ethical dilemmas do students encounter when using social media?
4. How do students make decisions to resolve ethical dilemmas they encounter on social media?
5. How do parents and teachers assist students to resolve ethical dilemmas on social media?

Guided by the five research questions, this study also formulated hypotheses related to the ethical issues, dilemmas, and decision-making behaviours of students on social media. A questionnaire was administered to students, and interviews were conducted with teachers and parents to gather data that would test these assumptions. The analysis of the findings in Chapter 5 and the discussion in Chapter 6 provide the basis for evaluating these hypotheses, as discussed in detail in Section 6.6.

7.2 Summary of the study

Botswana continues to play a leading role in the adoption and utilisation of ICTs. Parents, teachers, and young people are among those who are taking advantage of this development and using social media to a great extent. The most popular social media platform used by these groups is WhatsApp. In Africa, Parents mainly use WhatsApp, Facebook, and YouTube for various purposes, including accessing gospel music, sermons, marketing materials, news, and communicating with friends and family. Teachers also use social media platforms like WhatsApp, Facebook, YouTube, and for marketing, socialising, and communication, among other purposes. However, it is still a fact that the full benefit of social media is yet to be fully realised. This is due to limitations in knowledge and skills required to maximise the benefits of these platforms, as well as a lack of appropriate behaviour that hinders their realisation.

Students begin using social media as early as primary school, and by the time they reach high school, they already have substantial experience with social media use (Kamona, 2019). There are numerous benefits to students' social media use, including completing assignments, communicating with peers and instructors, staying informed about current affairs, marketing, learning new skills, and more. Whether allowed by their own schools or not, as in Botswana before the COVID-19 pandemic, there is no doubt that social media has revolutionised the way people communicate and obtain information on schoolwork and virtually all aspects of life.

However, they also experience a whole lot of issues, including bullying, exposure to illicit materials like pornography, blurring of boundaries relating to student-teacher relationships and communication, racial attacks, privacy breaches and others. Although many social media platforms have policies that guide users ethically, these policies are often lengthy and cumbersome to read, written in complex legal language. For example, Instagram's policy is over 5,000 words long. For this reason, Sadlair and Harrison (2017) advocate for policies that use simple language and are easy to understand.

The study reveals that ethical reasoning emerges as people interact with social media. Students consider whether something is respectful, shows humility, whether an action demonstrates kindness, love, decency, promotes unity, and respects the rights to freedom of speech, freedom of expression, the right to be left alone, the right to privacy, the right to access information, and the right to dignity. Although many teachers did not report actively assisting their learners in

navigating ethical dilemmas related to social media use, they acknowledged having personally encountered such dilemmas and engaging in ethical reasoning to address them.

Social media use presents numerous challenges, and it would be beneficial to have a mechanism that helps users navigate these challenges. The Potter Box Model can be beneficial due to its simplicity for young people. Franquet-Santos-Silva and Ventura-Morujão (2017) refer to one of the flaws of the Potter Box Model, arguing that although the model makes a valuable contribution to the desirable normative debate on ethical problems, like other models, it fails in the most difficult cases to determine which theory best suits specific circumstances. The need to apply the best ethical theory is secondary to the need to behave ethically in itself.

Young people must still be able to draw on a range of moral perspectives when navigating complex ethical quagmires. When faced with ethical dilemmas in life, including those involving social media, people often act according to a background of established convictions that they acquire through education and inherit from their social and cultural backgrounds (Franquet-Santos-Silva & Ventura-Morujão, 2017). The point is to have tools that help students navigate through ethical challenges decently. At this level, when young people are in high school, the Potter Box Model will suffice in providing young people with something they can lean on during decision-making.

The Potter Box Model (PBM), can be useful when navigating the ethical dilemmas of social media use among students. Because of this model's simplicity, it would be the most appropriate and viable, as it could be easily taught and adopted by young people. From the data gathered in this study, elements of PBM are already evident. It would only require a bit of clarification to formally teach students how to navigate social media's ethical dilemmas, now that social media has become an integral and indispensable part of our lives.

The information gathered in this study confirms that students and teachers encounter ethical dilemmas as they interact with social media in both their professional and personal lives. It was also evident that the students and teachers do not necessarily perceive and label them as ethical dilemmas as they encounter them. However, it was evident to the researcher that there were indeed ethical dilemmas. Ethical dilemmas that students face relate to privacy issues, religious beliefs, human rights, school norms, dignity, and access to information, as well as freedom of expression. Students in this study were able to recognise ethical problems as they use social

media. Respondents noted that they faced ethical dilemmas concerning school rules versus human rights free speech and dignity, access to information versus safety and security, property rights versus access to information, and privacy versus access to information, among others.

Teachers face ethical dilemmas when deciding whether, when, and how to intervene in matters arising from students' social media use. Although social media use, especially before the Covid-19 pandemic, was not permitted by schools in Botswana, it is common knowledge that students have always been using it, mainly outside of school, but also on school premises.

This study reveals that most teachers are aware of the pivotal role they play in youngsters' lives as moral compasses. As Henderson (2014) notes from an ethical perspective, classrooms are synonymous with the culture of care that teachers instill in the schoolroom. Teachers expressed that they were very cautious in using social media, ensuring that there was no blurring of the boundaries between their professional lives and their online social and personal lives. Consistent with Lennie's findings (2013) and others, they pointed out that students would turn down friend requests or even avoid using some social media platforms, such as Facebook, solely for the reason of preserving a clear separation between work and personal lives.

This perceived need for caution creates problems, as teachers are not fully utilising social media to put them in the right position to lead and offer advice to students (Lennie, 2013). They miss out on opportunities to experience and learn more about the social media platforms. In turn, this exacerbates the problem of teachers not being well-equipped with knowledge of social media use, to the extent that they feel they cannot play a leading and advisory role to students, as some even think that students know much more than they do. Although teachers have a strong belief that they are role models to students in the social media context, this belief is often accompanied by a general feeling of apprehension and a need for self-preservation (Lennie, 2013).

The values the students recognise as being at stake in this social media landscape, which are also at the heart of the WSIS (2003, 2005) Action Line 10 that advocate for ethical dimension of information society include human rights, dignity, truth, privacy, respect, honor and preservation of life; these values transcend confinements of time, place or cultural norms. The plan of action advocates that the Information Society should conform to universally held values and promote the common good, while also preventing the offensive uses of ICTs. It demands that all stakeholders work to increase awareness of the ethical dimensions of the information society,

promote the common good, and encourage research in this respect. These values form part of the second box of the Potter Box Model.

Many social media users have relied on the virtues they learnt from their families and the societies they hail from to deal with ethical dilemmas that arise during social media use. The study found that although social media is widely used and offers various academic and personal benefits, students also face numerous ethical issues and dilemmas, including privacy violations, exposure to harmful content, and conflicts between cultural norms and online behaviours. The Potter Box Model was proposed as a suitable ethical reasoning tool for students due to its simplicity and alignment with the stages of moral development.

Students' ethical decision-making was shaped by their values, experiences, and contextual factors. Teachers and parents, while aware of the dilemmas, often lacked the tools, confidence, or digital literacy to support students effectively. This gap creates a critical need for ethical reasoning frameworks tailored to young people in digital spaces.

7.3 Conclusions

The following conclusions are drawn in response to each of the study's research questions, based on the findings presented in Chapters 5 and 6, respectively.

Research Question 1: What is the status of social media use amongst senior secondary school students in Botswana? Most students in Botswana start using social media during that time they are in form 1, form 2 and form 3 some of them becoming heavy users of this technology. They mainly access social media from their smartphones. Facebook is the most popular social media platform for students.

Research Question 2: What ethical issues are encountered by students in senior secondary schools in Botswana in the use of social media?

Students in senior secondary schools encounter a wide range of ethical issues in their social media engagement. These include privacy breaches, cyberbullying, exposure to harmful and inappropriate content such as pornography, academic dishonesty (e.g., plagiarism), and misinformation. Furthermore, students often experience tensions between their right to freedom of expression and the need to adhere to school policies, social norms, and institutional

expectations. These issues often go unaddressed due to a lack of digital ethical education in schools.

Research Question 3: What ethical dilemmas do students encounter when using social media?

Students face complex ethical dilemmas that arise from conflicting values. These include:

- i. Privacy vs. access to information
- ii. Freedom of expression vs. dignity and respect for others
- iii. Adherence to school rules vs. individual human rights
- iv. Cultural and religious norms vs. global digital practices

Although students may not explicitly label these situations as ethical dilemmas, their actions reflect a process of moral negotiation and value-based decision-making.

Research Question 4: How do students make decisions to resolve ethical dilemmas they encounter on social media?

Students' ethical decision-making is influenced by personal experiences, cultural upbringing, school values, and peer interactions. While many students attempt to act ethically, their decision-making often lacks a structured framework and tends to be spontaneous. This often results in inconsistent judgments and questionable outcomes. The study found that students would benefit from the use of simple, structured models, such as the Potter Box, which can guide them in analysing dilemmas and making ethical choices more systematically.

Research Question 5: How do parents and teachers assist students to resolve ethical dilemmas on social media?

While parents and teachers acknowledge the ethical challenges associated with students' use of social media, many feel ill-equipped to provide effective guidance. Teachers, in particular, maintain professional boundaries by limiting social media interactions with students, which restricts their ability to support learners in real-time online contexts. Moreover, both groups lack formal training in digital ethics, and schools do not have clear frameworks or policies in place to help students navigate ethical dilemmas. This highlights the need for capacity building among adults who have a significant influence on students' moral development.

7.4 Recommendations

This section outlines practical recommendations that emerged from the study. The recommendations are grouped into three categories: (7.4.1) those informed by the core findings of the research; (7.4.2) those targeting the gaps identified in existing literature; and (7.4.3) those addressing the methodological limitations of the study. Each recommendation is accompanied by a rationale based on the data collected and the theoretical framework guiding the study.

7.4.1 Recommendations arising from the research findings

The findings indicate that students actively use social media and frequently encounter ethical dilemmas; however, there is limited formal guidance to help them navigate these challenges. Teachers and parents are aware of these issues, but often lack confidence and resources to intervene effectively. To address these realities, the study proposes the following actions:

1. Curriculum Integration of Digital Ethics

The Ministry of Education and Skills Development (MoESD) should formally integrate digital ethics education into the national curriculum at tertiary and secondary school levels. This integration should occur through Life Skills, Moral Education, or Digital Citizenship modules and should include structured ethical reasoning frameworks. Curriculum developers should embed case-based social media dilemmas aligned with the Potter Box Model and Botho values. Implementation should be supported through teacher training workshops and inclusion in curriculum policy documents.

2. Institutional Adoption of the Potter Box / BDEM Framework School leadership teams should adopt the **BOTHO Digital Ethics Model (BDEM)** as a structured decision-making tool within schools. This can be operationalised through:

- Inclusion in guidance and counselling programmes
- Integration into Life Orientation or equivalent subjects
- Use during disciplinary hearings involving digital misconduct

The Botswana Examinations Council and curriculum planners may also consider incorporating ethical digital scenarios into assessment tasks to reinforce structured reasoning.

3. Capacity Building for Teachers and Parents

Regional education offices should organise periodic professional development workshops to equip teachers with practical tools for guiding students' online behaviour. These workshops should include:

- Training in ethical reasoning models
- Awareness of emerging social media trends
- Practical case simulations

Parent–Teacher Associations (PTAs) should host annual digital ethics awareness sessions to enhance parental confidence in supporting adolescents' online decision-making.

4. Development of School-Level Digital Ethics Policies

Each senior secondary school should develop or update a formal **Digital Ethics and Responsible Social Media Use Policy**. This policy should:

- Clearly define acceptable and unacceptable online behaviour
- Outline graduated consequences for misconduct
- Incorporate restorative and reflective practices
- Align with national ICT and child protection policies

School boards should oversee policy adoption and ensure periodic review.

5. Establishment of Peer-Led Digital Ethics Ambassadors

Schools should introduce peer-led digital ethics ambassador programmes. Selected students should receive structured training in ethical reasoning and online responsibility and serve as peer mentors. This initiative should be coordinated through guidance departments and monitored by senior staff to ensure sustainability.

7.4.2 Recommendations on addressing gaps in the literature

The review of related literature revealed conceptual, contextual and platform-specific gaps that require systematic scholarly attention. The following actions are recommended for the academic community and research institutions:

1. Development of Culturally Grounded Ethical Reasoning Models

Researchers in African higher education institutions should prioritise the development of culturally responsive ethical reasoning frameworks grounded in African philosophical traditions,

including Botho/Ubuntu. Collaborative research networks across Southern Africa should undertake comparative studies to refine and validate such models in different socio-cultural contexts. Funding bodies such as national research councils should support this agenda to strengthen locally relevant theory-building.

2. Adoption of Intersectional Research Approaches

Future studies should intentionally adopt intersectional research designs that examine how gender, socio-economic background, school type, and digital access levels influence ethical decision-making among adolescents. Researchers should incorporate stratified or comparative sampling strategies to enable subgroup analysis, thereby generating more nuanced and policy-relevant findings.

3. Expansion of Platform-Specific Research

Scholars should broaden research beyond dominant platforms such as Facebook and Instagram to include emerging and rapidly evolving platforms such as TikTok, Telegram, Snapchat, and AI-integrated tools. Universities and postgraduate programmes should encourage platform-sensitive research that reflects current youth digital cultures rather than relying on outdated platform trends.

4. Contextualisation of Global Ethical Frameworks

Academic researchers should critically evaluate the applicability of Western-developed ethical reasoning models within African schooling contexts. Comparative validation studies should be conducted to assess how global models can be adapted, hybridised, or supplemented with local value systems.

7.4.3 Recommendations informed by limitations of the study

This study was limited to urban senior secondary schools in Gaborone and adopted a cross-sectional design. The following structured research extensions are recommended:

1. Geographic Expansion to Rural and Peri-Urban Contexts

Future researchers should replicate this study in rural and peri-urban senior secondary schools across Botswana to assess how infrastructural access, socio-cultural norms, and digital exposure influence ethical decision-making. Comparative regional studies would enhance external validity and provide more nationally representative insights.

2. Longitudinal Design for Developmental Tracking

Given that ethical reasoning evolves over time, future research should adopt longitudinal mixed-methods designs to track changes in students' ethical awareness and decision-making across multiple academic years. This approach would allow assessment of the long-term impact of digital ethics education interventions.

3. Broader Stakeholder Inclusion

Subsequent studies should expand participant groups to include policymakers, curriculum developers, religious leaders, community elders, and social media platform representatives. Multi-stakeholder research designs would provide a systemic understanding of digital ethics governance and shared responsibility.

4. Experimental and Intervention-Based Studies

Future scholars should conduct intervention studies to test the effectiveness of the BOTHO Digital Ethics Model (BDEM) in controlled school settings. Pre- and post-intervention designs could measure behavioural and attitudinal shifts in students' responses to ethical dilemmas.

7.5 Future research directions

Building on the above recommendations, the following areas are proposed for future research:

7.5.1 Development of a BOTHO Digital Ethics Toolkit for future application

First, there is a strong case for developing and piloting a digital ethics toolkit for schools, grounded in the Potter Box Model and adapted to the realities of social media use among Botswana's youth. This toolkit can be used as a practical guide for both learners and educators.

As an extension of the Potter Box Model of ethical reasoning, the proposed BOTHO Digital Ethics Model (BDEM) provides a culturally grounded, context-sensitive framework for ethical decision-making to address social media dilemmas among learners in Botswana. While PBM provides a useful four-step schema (definition, values, principles, loyalties), it lacks cultural specificity and practical integration into school and home environments.

To address this, the BDEM incorporates values from *Botho* philosophy, encourages school- and peer-led reflection, and integrates broader stakeholder involvement. This enhancement further refines the model by embedding World Summit on the Information Society (WSIS) principles, such as inclusivity, solidarity, and shared responsibility, into the values stage, acknowledging Botswana's commitment to global digital ethics standards. Additionally, the model now explicitly includes parents as vital participants in ethical decision-making and reflection processes (Stages 5 and 6), ensuring greater continuity between school, home, and online behaviours.

This revised framework is not only more reflective of learners' lived realities but also more actionable within the Botswana school system. Future research is recommended to:

- Pilot the enhanced model in schools through curriculum and peer programme integration.
- Assess its effectiveness in guiding ethical social media behaviour among learners.
- Explore the role of parents and WSIS-aligned values in strengthening adolescent digital ethics.
- Examine how localised ethical reasoning frameworks can complement or adapt global models in other African contexts.

Ultimately, the BDEM offers a pathway toward a more holistic, values-driven, and culturally attuned digital ethics education in Botswana's senior secondary schools.

Table 7.1 presents the BOTHO Digital Ethics Model (BDEM), a localised enhancement of the Potter Box tailored to Botswana's school context and youth social-media use. It preserves the Potter Box's core logic (facts → values → principles → loyalties) while embedding *Botho* values and WSIS-aligned digital citizenship commitments. Two practice-oriented stages are added: "Decide and Act" (Stage 5) to scaffold reasoned action within school policies and support structures, and "Reflect and Share" (Stage 6) to institutionalise ongoing reflection with peers, teachers, and parents.

Table 7.1: Localised Enhancement (BDEM)

Stage	Derived from Potter Box	Localised Enhancement (BDEM)
1. Understand the Dilemma	Empirical Definition (Facts)	Situate the issue within <i>school context, platform realities, and youth norms</i> . Use relatable language/examples.
2. Reflect on Values	Identifying Values	Embed Botho values (respect, empathy, unity) alongside global digital citizenship ethics (privacy, safety, etc.) combined with <i>Digital Citizenship values</i> (safety, privacy) and <i>WSIS principles</i> (freedom, inclusivity, solidarity, shared responsibility).
3. Apply Ethical Principles	Appeal to Ethical Principles	Teach practical reasoning using African and global philosophies (Ubuntu, consequentialism, deontology, etc.).
4. Consider Relationships	Choosing Loyalties	Emphasize <i>loyalties to community</i> , school, family, and self. Encourage peer accountability and school-based support.
5. Decide and Act	Particular Judgment/Action (new)	Support students in making reasoned ethical choices with <i>input from peers, teachers, and parents</i> , guided by school policies
6. Reflect & Share	(Not in Potter Box)	Encourage <i>ongoing personal reflection</i> , peer discussions, and feedback loops <i>including parents</i> , digital clubs, and ethics committees.

Second, research should aim to evaluate the impact of digital ethics education on students' online behaviour and ethical decision-making. This could involve testing the use of structured models, such as the Potter Box, in classrooms and measuring changes in students' responses to online dilemmas.

Third, it is essential to examine how parents support or hinder ethical decision-making online, particularly across diverse cultural and socioeconomic contexts in Botswana. This will help in designing targeted parent-education initiatives.

Finally, with the rise of tools like ChatGPT and other AI applications, schools must contend with new ethical challenges. There is a pressing need to investigate how AI influences students' academic integrity, authorship, and ethical reasoning.

REFERENCES

- Abawi, K. (2013). *Data collection instruments (questionnaire and interview)*. Geneva Workshop, Geneva Foundation for Medical Education and Research.
<http://www.gfmer.ch/SRH-Course-2012/Geneva-Workshop/pdf/Data-collection-instruments-Abawi-2013.pdf>
- Acquisti, A., & Gross, R. (2006). Imagined communities: Awareness, information sharing, and privacy on the Facebook. In G. Danezis & P. Golle (Eds.), *Privacy Enhancing Technologies* (LNCS Vol. 4258, pp. 36–58). Springer.
https://doi.org/10.1007/11957454_3
- African Regional Intellectual Property Organization. (2016). *Annual report 2016*. ARIPO.
- Ahn, J. (2011). The effect of social networking sites on adolescents' social and academic development: Current theories and controversies. *Journal of the American Society for Information Science and Technology*, 62(8), 1435–1445.
<https://doi.org/10.1002/asi.21540>
- Al Ali, B., Haq, M. M. A. U., Al-Rebh, A. A., Al-Qahtani, M., & Al-Qurashi, T. (2012). Decision making in ethical dilemma. In *Technology Management for Emerging Technologies (PICMET)*, Proceedings of PICMET'12 (pp. 589–599). IEEE. Vancouver, British Columbia, Canada — Sheraton Vancouver Wall Centre.
- Alakurt, T., Bardakçı, S., & Keser, H. (2012). ICT student teachers' judgments and justifications about ethical issues. *Turkish Online Journal of Qualitative Inquiry*, 3(4), 48–63.
<https://dergipark.org.tr/en/pub/tojqi/issue/21397/229381>
- Aljehani, H. A. (2019). Impact of social media on social value systems among university students in Saudi Arabia. *International Journal of Education and Practice*, 7(3), 216–229. <https://doi.org/10.18488/journal.61.2019.73.216.229>
- Allmer, T. (2015). *Critical theory and social media: Between emancipation and commodification*. Taylor and Francis.

- Alpert, M. (2018). *Intellectual property rights in the age of social media*. New York University Law Review.
- Al-Shahrani, A. M., Al-Ghamdi, S. A., & Al-Sufiani, A. (2021). Social media use and its effect on mental health among adolescents in Saudi Arabia. *Journal of Family Medicine and Primary Care*, 10(2), 828–834.
- Anderson, J., & Rainie, L. (2017). *The future of truth and misinformation online*. Pew Research Center. <http://www.pewinternet.org/2017/10/19/the-future-of-truth-and-misinformation-online/>
- Anderson, M., & Faverio, M. (2023). 81% of U.S. adults – versus 46% of teens – favor parental consent for minors to use social media. Pew Research Center. <https://www.pewresearch.org/short-reads/2023/10/31/81-of-us-adults-versus-46-of-teens-favor-parental-consent-for-minors-to-use-social-media/>
- Anderson, M., & Jiang, J. (2018). *Teens, social media & technology 2018*. Pew Research Center.
- Anderson, M., Vogels, E. A., Perrin, A., & Rainie, L. (2022). Connection, creativity and drama: Teen life on social media in 2022. Pew Research Center. <https://www.pewresearch.org/internet/2022/11/16/connection-creativity-and-drama-teen-life-on-social-media-in-2022/>
- Angst, C. M. (2009). Protect my privacy or support the common-good? Ethical questions about electronic health information exchanges. *Journal of Business Ethics*, 90(2), 169–178. <https://doi.org/10.1007/s10551-010-0385-5>
- Archambault, A. (2021). The ethics of student surveillance: Privacy in the age of ed-tech. *Educational Policy*, 35(1), 123–145.
- Auld, G., & Henderson, M. (2015). The ethical dilemmas of social networking sites in classroom contexts. In *Human rights and ethics: Concepts, methodologies, tools, and applications* (pp. 741–756). IGI Global. <https://doi.org/10.4018/978-1-4666-6433-3.ch041>
- Awoniyi, S. A. (2015). Values and education. *European Journal of Educational Studies*, 7(1), 53–63.

- Babbie, E. R. (1998). *The practice of social research* (8th ed.). Wadsworth.
- Babbie, E. R., & Mouton, J. (2001). *The practice of social research*. Oxford University Press Southern Africa.
- Baker, R. K., & White, K. M. (2010). Predicting adolescents' use of social networking sites from an extended theory of planned behavior perspective. *Computers in Human Behavior*, 26(6), 1591–1597.
- Ballard, R. L., & Swenson-Lepper, T. (2023). Examining students' social media use and ethical awareness: Class activities and 'Coastal Succulents'. *Communication Teacher*, 37(3), 198–206. <https://doi.org/10.1080/17404622.2022.2153891>
- Bányai, F., Zsila, Á., Király, O., Maraz, A., Elekes, Z., Griffiths, M. D., Andreassen, C. S., & Demetrovics, Z. (2017). Problematic social media use: Results from a large-scale nationally representative adolescent sample. *PLOS ONE*, 12(1), e0169839. <https://doi.org/10.1371/journal.pone.0169839>
- Barrett-Maitland, N., & Lynch, J. (2019). Social media, ethics and the privacy paradox. In *Security and privacy from a legal, ethical, and technical perspective*. IntechOpen. Available at: <https://www.intechopen.com/books/security-and-privacy-from-a-legal-ethical-and-technical-perspective/social-media-ethics-and-the-privacy-paradox>.
- Bartels, D. M., Bauman, C. W., Cushman, F. A., Pizarro, D. A., & McGraw, A. P. (2014). Moral judgment and decision making. In G. Keren & G. Wu (Eds.), *Blackwell reader of judgment and decision making* (pp. 273–302). Blackwell. https://cushmanlab.fas.harvard.edu/docs/Bartels_etal_2014.pdf
- Başaran, S. (2017). *Investigating ethical information sharing in Facebook within educational context through adopted PAPA framework* [Online]. https://www.researchgate.net/profile/Seren-Basaran-5/publication/321168697_Investigating_ethical_information_sharing_in_facebook_within_educational_context_through_adopted_PAPA_framework/links/5a3b21dea6fdcc7ffe640a67/Investigating-ethical-information-sharing-in-facebook-within-educational-context-through-adopted-PAPA-framework.pdf

- Basupi, K. S. T., & Mhozya, C. M. (2017). The impact of social media on youth behaviour: The case of Nanogang Community Junior School. In Institute of Development Management (IDM) Training, Research and Consultancy: Pillars for Knowledge and Sustainable Economy? (Conference Paper, pp. 83–95).
- Batane, T. (2013). Internet access and use among young people in Botswana. *International Journal of Information and Education Technology*, 3(1), 117.
- Bhargava, V. R., & Velasquez, M. (2020). Ethics of the attention economy: The problem of social media addiction. *Business Ethics Quarterly*, 31(3), 321–359.
- Bocij, P. (2012). *Cyberstalking: Harassment in the internet age and how to protect your family*. Praeger.
- Bollapragada, M. K. (2012). The use of Facebook as a communication tool between universities and students (Master's thesis, University of KwaZulu-Natal).
<http://researchspace.ukzn.ac.za/handle/10413/12921?show=full>
- Botswana Communications Regulatory Authority (BOCRA). (2019) *Annual report 2018*. Gaborone: BOCRA.
- Botswana Communications Regulatory Authority (BOCRA). (2022) *Annual report* [Online]. Available at:
https://www.bocra.org.bw/sites/default/files/documents/BOCRA_Annual_Report-2022.pdf
- Botswana Communications Regulatory Authority. (2023). *Annual report 2023*. BOCRA.
<https://www.bocra.org.bw>
- Botswana Ministry of Education and Skills Development. (2017). *List of public schools*.
<http://www.gov.bw/globalassets/moe/schools/secondary-schools-list.pdf>
- Botswana Ministry of Education and Skills Development. (2017). *List of public schools* [Online].
<http://www.gov.bw/globalassets/moe/schools/secondary-schools-list.pdf>
- Botswana National Productivity Centre. (2022). *Botswana's digital competitiveness performance*. <https://www.bnpc.bw/news/index.php?article=46>

- Botswana National Productivity Centre. (2022). *Botswana's digital competitiveness performance* [Online]. <https://www.bnpc.bw/news/index.php?article=46>
- Bouhnik, D., & Mor, D. (2014). Gender differences in the moral judgment and behavior of Israeli adolescents in the internet environment. *Journal of the Association for Information Science & Technology*, 65(3), 551–559. <https://doi.org/10.1002/asi.22979>
- Bowen, S. A. (2013). Using classic social media cases to distill ethical guidelines for digital. *Journal of Mass Media Ethics*, 28(2), 119–133. <https://doi.org/10.1080/08900523.2013.79352>
- Boyd, D. (2014). *It's complicated: The social lives of networked teens*. Yale University Press. Available at: <http://www.danah.org/books/ItsComplicated.pdf>
- Bratton, D., & Candy, V. (2013). Federal government ethics: Social media. *International Journal of Management and Information Systems*, 17(3), 175.
- Brey, P. (2007). Is information ethics culture-relative? *International Journal of Technology and Human Interaction*, 3(3), 12–24. https://www.utwente.nl/en/bms/wijsb/staff/brey/Publicaties_Brey/Brey_2007_Culture-Relative.pdf
- Broodryk, J. (2008). *Understanding South Africa: The uBuntu way of living*. Ubuntu School of Philosophy.
- Bynum, T. W., & Rogerson, S. (2004). *Computer ethics and professional responsibility*. Blackwell.
- Cain, J., & Fink, J. L. III. (2010). Legal and ethical issues regarding social media and pharmacy education. *American Journal of Pharmaceutical Education*, 74(10), 1–8.
- Cameron, R. (2011). Mixed methods research: The Five Ps framework. *Electronic Journal of Business Research Methods*, 9(2), 96–108. Available at: <http://www.ejbrm.com>
- Cameron, R., Ginsburg, H., Westhoff, M., & Mendez, R. V. (2012). Ajzen's theory of planned behavior and social media use by college students. *American Journal of Psychological Research*, 8(1), 1–20.

<https://www.mcneese.edu/f/c/6f37dd6a/AJPR%201201%20Cameron%20Ginsburg%208-17%20Revised.pdf>

- Capurro, R. (2007). Information ethics for and from Africa. In R. Capurro et al. (Eds.), *Africa Reader on Information Ethics*. Department of Information Science, University of Pretoria.
- Capurro, R. (2009). Intercultural information ethics. In *Handbook of research on computer ethics and society*. IGI Global.
- Capurro, R. (2011). Never enter your real data. *International Review of Information Ethics*, 16(12), 74–78. http://www.i-r-i-e.net/inhalt/016/016_full.pdf#page=76
- Carlson, D. (2003). Professional ethics in a virtual world. *Business Ethics Quarterly*, 13(4), 19–28.
- Caruth, G. D. (2013). Demystifying mixed methods research design: A review of the literature. *Mevlana International Journal of Education*, 3(2), 112–122.
- Carveth, R. (2006). The ethics of new media. In K. L. Hansen (Ed.), *Media ethics* (pp. xx–xx). SAGE Publications.
- Carveth, R., Ferraris, C., & Backus, N. (2006). Applying the Potter Box to Merck's actions regarding the painkiller Vioxx. Proceedings of the 2006 Association for Business Communication Annual Convention. https://www.academia.edu/16309301/Applying_the_Potter_Box_to_Mercks_Actions_Regarding_the_Painkiller_Vioxx
- Chan, R. Y. K., Ma, K. H. Y., & Wong, Y. H. (2013). The software piracy decision-making process of Chinese computer users. *The Information Society*, 29(4), 203–218. at: <https://doi.org/10.1080/01972243.2013.792302>
- Chawinga, W. D. (2017). Taking social media to a university classroom: Teaching and learning using Twitter and blogs. *International Journal of Educational Technology in Higher Education*, 14(1), 3.
- Chaykowski, K. (2017). *Mark Zuckerberg: 2 billion users means Facebook's 'responsibility is expanding'* [Online].

<https://www.forbes.com/sites/kathleenchaykowski/2017/06/27/facebook-officially-hits-2-billion-users/#6076c3437080>

- Chen, B., & Bryer, T. (2012). Investigating instructional strategies for using social media in formal and informal learning. *The International Review of Research in Open and Distributed Learning*, 13(1), 87–104. <http://www.irrodl.org>
- Chigona, A., Wessels, A., & Lunga, V. (2014). South African students' perceptions of mobile phone use in the classroom. *Mediterranean Journal of Social Sciences*, 5(27), 1–7.
- Chilisa, B. (2020). *Indigenous research methodologies* (2nd ed.). SAGE Publications.
- Christians, C. G., Fackler, M., Richardson, K. B., & Kreshel, P. J. (2020). *Media ethics: Cases and moral reasoning* (11th ed.). Routledge. <https://dokumen.pub/media-ethics-cases-and-moral-reasoning-11nbsped-2019052635-2019052636-9780367243951-9780367243975-9780429282249.html>
- Christians, C. G., Fackler, M., Richardson, K., Kreshel, P., & Woods, R. H. (2015). *Media ethics: Cases and moral reasoning* (9th ed.). Routledge.
- Chukwuere, J. E. (2017). The impact of social media on social lifestyle: A case study of university female students. *Gender & Behaviour*, 15(4), 9966–9981.
- Cilliers, L. (2017). Evaluation of information ethical issues among undergraduate students: An exploratory study. *South African Journal of Information Management*, 19(1), 1–6. <https://doi.org/10.4102/sajim.v19i1.767>
- CIPESA. (2017). *State of internet freedom in Africa: Intermediaries' role in advancing internet freedom: Challenges and prospects*. Uganda.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6th ed.). Routledge.

- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.
- Colorado State University. (2023) *Social media* [Online].
<https://socialmedia.colostate.edu/using-flickr/>
- Cotton, D. R., Cotton, P. A., & Shipway, J. R. (2023). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International*, 1–12. <https://doi.org/10.1080/14703297.2023.2190148>
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches*. Sage Publications.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Curzer, H. J. (2014). *Aristotle and the virtues*. Oxford University Press.
- Cyberbullying Research Centre. (2018). *2018 cyberbullying data* [Online]. Available at:
<https://cyberbullying.org/2018-cyberbullying-data>
- Data Reportal. (2023). *Global social media statistics* [Online]. <https://datareportal.com/social-media-users>
- Dawadi, S., Shrestha, S., & Giri, R. A. (2021). Mixed-methods research: A discussion on its types, challenges, and criticisms. *Journal of Practical Studies in Education*, 2(2), 25–36.
<https://doi.org/10.46809/jpse.v2i2.20>
- de Zwart, M., Lindsay, D., Henderson, M., & Phillips, M. (2011). Teenagers, legal risks and social networking sites. Monash University, Faculty of Education.
<https://www.researchgate.net/publication/259978247>

- Demers, J. A., & Sullivan, A. L. (2016). Confronting the ubiquity of electronic communication and social media: Ethical and legal considerations for psychoeducational practice. *Psychology in the Schools*, 53(5), 517–532. <https://doi.org/10.1002/pits.21920>
- Denscombe, M. (2014). *The good research guide: For small-scale social research projects* (5th ed.). Open University Press.
- Dhiman, B. (2023). ‘Ethical issues and challenges in social media: A current scenario’. *TechRxiv*[Online]. <https://doi.org/10.36227/techrxiv.22662844.v1>
- Dinama, B. (2012). The path so far: Introducing moral education in Botswana senior secondary schools. *International Journal of Scientific Research in Education*, 5(2), 100–108. http://www.ij sre.com/assets/vol.%2C-5_2_-dinama.pdf
- Dixon, A. (n.d.). Social bookmarking. *SVEA Training Modules*[Online]. http://www.svea-project.eu/www.svea-project.eu/fileadmin/_svea/downloads/Social_Bookmarking_02.pdf
- Dolamo, R. T. (2013). Botho/Ubuntu: The heart of African ethics. *Scriptura: International Journal of Bible, Religion and Theology in Southern Africa*, 112(1), 1–10. <https://doi.org/10.7833/112-0-78>
- Doyle, E., & O'Flaherty, J. (2013). The impact of education level and type on moral reasoning. *Irish Educational Studies*, 32(3), 377–393. <https://doi.org/10.1080/03323315.2013.823273>
- Dudley, A., Braman, J., Wang, K., Vincenti, G., & Tupper, D. (2010). *Security, legal, and ethical implications of using virtual worlds* [Online]. <https://www.researchgate.net/publication/228968768>
- Duggan, M. (2017). Online harassment 2017. Pew Research Center. <https://www.pewinternet.org/2017/07/11/online-harassment-2017/>
- Duncan-Daston, R., Hunter-Sloan, M., & Fullmar, E. (2013). Considering the ethical implications of social media in social work education. *Ethics and Information Technology*, 15(1), 35–43. <https://doi.org/10.1007/s10676-013-9312-7>

- Dwivedi, Y. K., et al. (2024). Exploring generative artificial intelligence research: A bibliometric analysis approach. *IEEE Access*, 12, 124231–124255.
- Ephraim, P. E. (2013). African youths and the dangers of social networking: A culture-centered approach to using social media. *Ethics and Information Technology*, 15(4), 275–284.
<https://doi.org/10.1007/s10676-013-9333-2>
- Ericsson. (2017). *Ericsson mobility report: June 2017* [Online].
<https://www.ericsson.com/assets/local/mobility-report/documents/2017/ericsson-mobility-report-june-2017.pdf>
- Ess, C. (2009). *Digital media ethics*. Polity Press.
- Facebook. (2015). Statement of rights and responsibilities.
<https://www.facebook.com/legal/terms>
- Facebook. (2021). *Community standards*. Meta Platforms, Inc.
<https://transparency.fb.com/policies/community-standards/>
- Facebook. (2024). Meta’s approach to responsible AI and safety. Meta Platforms, Inc.
- Fardouly, J. (2025). Potential effects of the social media age ban in Australia for children younger than 16 years. *The Lancet Digital Health*, 7(4), e235–e236.
<https://doi.org/10.1016/j.landig.2025.01.016>
- Farooq, M. B., & De Villiers, C. (2017). Telephonic qualitative research interviews: When to consider them and how to do them. *Meditari Accountancy Research*, 25(2), 291–316.
<https://www.researchgate.net/publication/316262548>
- Ferns, L. (n.d.). Our children and social media: What does the law say? Kaplan Blumberg Attorneys.
<http://www.arhs.co.za/Downloads/Other%20Documents/OUR%20CHILDREN%20AND%20SOCIAL%20MEDIA%20.pdf>
- Floridi, L. (2013). *The ethics of information*. Oxford University Press.
<https://doi.org/10.1093/acprof:oso/9780199641321.001.0001>

- Floridi, L., Cowls, J., Beltrametti, M., et al. (2018). AI4People—An ethical framework for a good AI society: Opportunities, risks, principles, and recommendations. *Minds and Machines*, 28, 689–707.
- Fombad, C. M. (2007). The protection of human rights in Botswana: An overview of the regulatory framework. In C. M. Fombad (Ed.), *Essays on the law of Botswana*. Juta and Company.
<http://crm.misa.org/upload/web/ESSAYS%20ON%20THE%20LAW%20OF%20BOTSWANA.pdf>
- Franquet-Santos-Silva, M., & Ventura-Morujão, C.-A. (2017). The Potter box model of moral reasoning. *El Profesional de la Información*, 26(2), 328–335.
<https://doi.org/10.3145/epi.2017.mar.20>
- Gaborone Senior Secondary School. (2018). *Prospectus*. [Institutional prospectus]. Gaborone, Botswana: Gaborone Senior Secondary School.
- Gathara, P. (2020). Ethical decision-making in the digital age: The case of graphic images in Kenyan print and online newspapers (Unpublished master's dissertation). Aga Khan University, East Africa. https://ecommons.aku.edu/eastafrica_ied/187
- Geertz, C. (1973). *The interpretation of cultures: Selected essays*. Basic Books.
- Gillham, B. (2005). *Research interviewing: The range of techniques*. Open University Press.
- Ginsburg, K. R. (2012). *Preparing for the digital age: Digital citizenship in the 21st century*.
- Government of Botswana. (2007). *Cybercrime and Computer Related Crimes Act, 2007* (Act No. 22 of 2007). Government Printer.
<https://botswanalaws.com/StatutesActpdf/2007ACTpdf/CYBERCRIME%20AND%20COMPUTER%20RELATED%20CRIMES%20ACT%2C%2022%20OF%202007.pdf>
- Government of Botswana. (2013). *Botswana National e-Government Strategy 2011–2016*. Government Printer.
https://staging.nationalplanningcycles.org/sites/default/files/country_docs/Botswana/egov_strategy.pdf
- Government of Botswana. Ministry of Youth Sport and Culture. (2010). *Revised National Youth Policy*. Government of Botswana.

https://www.botswanalmo.org.bw/sites/default/files/National%20Youth%20Policy_revised_2010.pdf

- Granitz, N., & Loewy, D. (2007). Applying ethical theories: Interpreting and responding to student plagiarism. *Journal of Business Ethics*, 72, 293-306. doi: 10.1007/s10551-006-9171-9
- Grant, C., & Osanloo, A. (2014). Understanding, selecting, and integrating a theoretical framework in dissertation research: Creating the blueprint for your “house”. *Administrative Issues Journal: Connecting Education, Practice, and Research*, 4(2), 12–26. <https://doi.org/10.5929/2014.4.2.9>
- Greenhow, C., & Lewin, C. (2016). Social media and education: Reconceptualizing the boundaries of formal and informal learning. *Learning, Media and Technology*, 41(1), 1-25. doi: 10.1080/17439884.2015.1064954
- Griffiths, M. D. (2018). Adolescent social networking: How do social media operators facilitate habitual use?. *Education and Health*, 36(3), 66-69.
- GSMA. (2017). The Mobile Economy Sub-Saharan Africa 2017.
- GSMA. (2022). The mobile economy Sub-Saharan Africa 2022. GSMA Intelligence.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). Sage.
- Guy, R. (Ed.). (2012). The digitization of healthcare: Strategies and solutions.
- Gyekye, K. (2010). African ethics. In E. N. Zalta (Ed.), *The Stanford encyclopedia of philosophy* (Fall 2010 ed.). Stanford University.
<https://plato.stanford.edu/archives/fall2010/entries/african-ethics/>
- Harncharnchai, A., & Inplao, K. (2015). Information ethics and behaviours of upper secondary school students regarding the use of computers and the internet. *Journal of Information Ethics*, 24(1), 8-116.
- Harrison, T. J. (2014). Does the internet influence the character virtues of 11- to 14-year-olds in England? A mixed method study with particular regard to cyber-bullying (Unpublished doctoral dissertation). University of Birmingham.
- Harrison-Evans, P., & Krasodonski-Jones, A. (2017). *The moral web: Youth, character, ethics and behaviour*. London, UK: Demos.

- Hart, C. (1998). *Doing a literature review. Releasing the social science research imagination*. London, UK: SAGE Publications.
- Hauptman, R. (2008). Ethics and information: An encyclopedic overview. *Business Information Review*, 25(4), 238-252.
- Henderson, M., Auld, G., & Johnson, N. F. (2014). Ethics of Teaching with Social Media. Paper presented at the Australian Computers in Education Conference 2014, Adelaide, SA.
- Henderson, M., Snyder, I., & Beale, D. (2013). Social media for collaborative learning: A review of school literature. *Australian Educational Computing*, 28(2).
<https://journal.acce.edu.au/index.php/AEC/article/view/18>
- Henry, N., & Powell, A. (2018). Technology-facilitated sexual violence: A literature review of empirical research. *Trauma, Violence, & Abuse*, 19(2), 195–208.
- Hermanowicz, J. C. (2002). The great interview: 25 strategies for studying people in bed. *Qualitative Sociology*, 25(4), 479–499. <https://doi.org/10.1023/A:1021062932081>
- Hinduja, S., & Patchin, J. W. (2020). Cyberbullying identification, prevention, and response. Cyberbullying Research Center.
- Hopper, D. (2000). *Teaching virtual morality: FBI pushes for cyber ethics*. ABC News.
<https://www.demos.co.uk/wp-content/uploads/2017/09/DEM5689-The-moral-Web-ethics-and-behaviour-on-social-media-170908-WEB-3.pdf>
- Hu, X., & Li, Y. (2019). A systematic review of digital literacy in the 21st century. *International Journal of Digital Literacy and Digital Competence*.
- International Telecommunication Union (ITU). (2017). *ICT facts and figures 2017*. Geneva: ITU. <https://www.itu.int/en/itu-d/statistics/documents/facts/ictfactsfigures2017.pdf>
- International Telecommunication Union (ITU). (2023). *Measuring digital development: Facts and figures 2023*. Geneva: ITU. <https://www.itu.int/itu-d/reports/statistics/wp-content/uploads/sites/5/2023/11/Measuring-digital-development-Facts-and-figures-2023-E.pdf>
- Isokon, B. E., Archibong, E. P., Tiku, O. T., Tangban, E. E., & Francis, E. A. (2022). Negative attitude of youth towards African traditional values and socio-economic implications for Nigeria. *Global Journal of Social Sciences*, 21(2), 35-44. doi: 10.4314/gjss.v21i1.5

- Jacobson, W. C., & Forste, R. (2011). The wired generation: Academic and social outcomes of electronic media use among university students. *Cyberpsychology, Behaviour and Social Networking*, 14(5), 275-280. doi: 10.1089/cyber.2010.0135
- Jafarkarimi, H., Saadatdoost, R., Sim, A. T. H., & Hee, J. M. (2016). Behavioral intention in social networking sites ethical dilemmas: An extended model based on Theory of Planned Behavior. *Computers in Human Behavior*, 62, 545-561. doi: 10.1016/j.chb.2016.04.024
- James, C. (2014). *Disconnected: Youth, new media, and the ethics gap*. The MIT Press.
- James, C., Davis, K., Flores, A., Francis, J. M., Pettingill, L., Rundle, M., & Gardner, H. (2009). *Young people, ethics, and the new digital media: A synthesis from the GoodPlay project*. The MIT Press.
- Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York University Press.
- Kaplan, A. M., & Haenlein, M. (2009). The fairyland of Second Life: Virtual social worlds and how to use them. *Business Horizons*, 52(6), 563-572.
- Kaptein, M. (2017). Transparency: How leaders create a culture of candor. *Business Horizons*, 60(5), 693–696. <https://doi.org/10.1016/j.bushor.2017.05.009>
- Kaptein, M. (2019). The moral entrepreneur: A new component of ethical leadership. *Journal of Business Ethics*, 156(4), 1135–1150.
- Katz, E., Blumler, J. G., & Gurevitch, M. (1974). Utilization of mass communication by the individual. In J. G. Blumler & E. Katz (Eds.), *The uses of mass communications: Current perspectives on gratifications research* (pp. 19–32). Sage.
- Kaushik, V., & Walsh, C. A. (2019). Pragmatism as a research paradigm and its implications for social work research. *Social Science*, 8, 255. doi: 10.3390/socsci8090255
- Keith, T. (2023). *Combating academic dishonesty, Part 6: ChatGPT, AI, and academic integrity*. University of Chicago. Academic Technology Solutions, University of Chicago. <https://academictech.uchicago.edu/2023/01/23/combating-academic-dishonesty-part-6-chatgpt-ai-and-academic-integrity/>
- Kidder, R. M. (2009). *How good people make tough choices: Resolving the dilemmas of ethical living* (Rev. ed.). HarperCollins.
- Killen, M., & Smetana, J. G. (Eds.). (2010). *Handbook of moral development*. Psychology Press.

- Kim, K. S., Sin, S. C. J., & Yoo-Lee, E. Y. (2014). Undergraduates' use of social media as information sources. *College & Research Libraries*, 75(4), 442-457.
- Kim, K.-S., Sin, S.-C. J., & Tsai, T.-I. (2014). Individual differences in social media use for information seeking. *The Journal of Academic Librarianship*, 40(2), 171-178. doi: 10.1016/j.acalib.2014.03.001
- Kirley, E. A. (2015). Reputational privacy and the internet: A matter for law? (Unpublished doctoral dissertation). York University, Toronto, Canada.
- Kirova, A. (2023). The impact of digital media on moral development in youth. *Journal of Moral Education*, 52(1), 1–15. <https://doi.org/10.1080/03057240.2022.2136751>
- Kizza, J. M. (2016). Ethics in computing: A concise module. Springer.
- Kowalski, R. M., et al. (2019). Cyberbullying and emotional distress in adolescents. *Journal of School Violence*.
- Krasodonski-Jones, A. (2017). The digital republic: On freedom and democracy in the 21st century. Demos.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610.
- Kunda, J., & Chigona, W. (2022). Bridging the digital literacy divide in rural and township communities.
- Kuzu, A. (2009). Problems related to computer ethics: Origins of the problems and suggested solutions. *TOJET: The Turkish Online Journal of Educational Technology*, 8(2), 1-20.
- Kwanya, T., & Stilwell, C. (2015). Application of Web 2.0 tools in libraries in Africa: A reality check. In A. Tella (Ed.), *Social media strategies for dynamic library service development* (pp. 85–112). IGI Global. <https://doi.org/10.4018/978-1-4666-7415-8.ch005>
- Laidlaw, E. B. (2017). Online shaming and the right to privacy. *Laws*, 6(1), 3, 1-26. doi: 10.3390/laws6010003
- Lambeth, E. B. (1992). Committed journalism: An ethic for the profession (2nd ed.). Indiana University Press.
- Lebele, A. A. (2016). Access and usage of information and communications technology through public access centres in Letlhakeng rural village in Botswana (Doctoral dissertation, UNISA).

- Lee, A. Y. (2013). Literacy and competencies required to participate in knowledge societies: WSIS+10 Overview and analysis of WSIS Action Lines C3 (Access to knowledge) and C9 (Media). In UNESCO (Ed.), *Conceptual relationship of information literacy and media literacy in knowledge societies: Series of research papers* (pp. 3–75). Paris: UNESCO. [http://www.globalmediapolicy.net/sites/default/files/WSIS -
Series of research papers -
Conceptual Relationship between Information Literacy and Media Literacy.pdf#page=4](http://www.globalmediapolicy.net/sites/default/files/WSIS_-_Series_of_research_papers_-_Conceptual_Relationship_between_Information_Literacy_and_Media_Literacy.pdf#page=4)
- Lee, J., Lee, Y., & Kim, M. (2015). Perceptions of teachers and students towards educational application of SNS and its educational effects in middle school class. *The Turkish Journal of Educational Technology*, 14(4), 124-134.
- Lenhart, A. (2015). Teens, social media & technology overview 2015. Pew Research Center.
- Lennie, S. (2013). Ethical complexities in the virtual world: Teacher perspectives of ICT-based issues and conflicts (Doctoral dissertation, University of Toronto).
- Lesitaokana, W. (2014). Mobile phones and the cultural values of Batswana: A case study of young adults in Gaborone, Botswana. *Journal of African Media Studies*, 6(3), 301–316. https://doi.org/10.1386/jams.6.3.301_1
- Lesitaokana, W. (2015). Young people and mobile phone technology in Botswana. *Handbook of Children and Youth Studies*, 801-813. doi: 10.1007/978-981-4451-96-3_30-1
- Lesitaokana, W. O. (2016). Urban youth in Botswana and their habitual practice of texting. *Journal on Media & Communications (JMC)*, 1(3), 34-38.
- Li, W., O'Brien, J. E., Snyder, S. M., & Howard, M. O. (2015). Characteristics of internet addiction/pathological internet use in US university students: A qualitative-method investigation. *PLoS ONE*, 10(2), e0117372. doi: 10.1371/journal.pone.0117372
- Light, B., McGrath, K., & Griffiths, M. (2008). More than just friends? Facebook, disclosive ethics and the morality of technology. *Proceedings of the 29th International Conference on Information Systems (ICIS 2008), Paris, France* (Paper 193). Association for Information Systems. <https://aisel.aisnet.org/icis2008/193>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.
- Ling, T. J., & Hauck, J. M. (2016). The ETHICS Model: Comprehensive, Ethical Decision Making. Paper presented at the 2016 *American Counseling Association Conference*,

- Montréal, Québec. <https://manifold.counseling.org/read/the-ethics-model-comprehensive-ethical-decision-making>
- Liu, X., & Chen, Y. (2012). Information ethics: A cross-cultural study of ethical decision-making between US and Chinese business students. *International Journal of Business and Business and Social Science*, 3(8), 51–60.
<https://www.ijbssnet.com/journal/index/1143>
- Livingstone, S., & Smith, P. K. (2014). Annual research review: Harms experienced by child users of online and mobile technologies: The nature, prevalence and management of sexual and aggressive risks in the digital age. *Journal of Child Psychology and Psychiatry*, 55(6), 635–654.
- Livingstone, S., & Stoilova, M. (2021). Manifesto for better data practices for children’s rights in the digital environment.
- Livingstone, S., & Third, A. (2017). Children and young people’s rights in the digital age: An emerging agenda. *New Media & Society*, 19(5), 657–670.
<https://doi.org/10.1177/1461444816686318>
- Livingstone, S., Haddon, L., Görzig, A., & Ólafsson, K. (2011). *Risks and safety on the internet: The perspective of European children: Full findings*. LSE, EU Kids Online.
- MacIntosh, E., & Utecht, J. (2012). Social networking. In S. McLeod & C. Lehmann (Eds.), *What school leaders need to know about digital technologies and social media* (pp. 173–181). Wiley/Jossey-Bass.
- MacIntyre, A. (1984). *After virtue: A study in moral theory* (2nd ed.). University of Notre Dame Press.
- Mafa, K. R., & Govender, D. W. (2018). The use of mobile technology devices in Botswana secondary schools to enhance teaching and learning. *International Journal, 74*(8/1). *PONTE*, 74(8), 198–213. <https://doi.org/10.21506/j.ponte.2018.8.15>
- Maikaba, B., & Msughter, A. E. (2019b). Media, values and social change: Implications for national development. *Journal of Social Sciences and Public Policy*, 11(3), 14–24.

- Maikaba, B., & Msughter, E. A. (2019a). Digital media and cultural globalisation: The fate of African value system. *Humanities and Social Sciences*, 7(6). doi: 10.11648/j.hss.20190706.15
- Maisiri, E., & Hikwa, L. (2013). Information ethics and use of social media in higher education: Faculty members' perspectives. *Innovation: Journal of Appropriate Librarianship and Information Work in Southern Africa*, 47, 43-69.
- Malinga-Musamba, T. (2013). Traditional practices and youth rights in Botswana: Striking a balance. *Botswana Notes and Records*, 45, 77-85.
- Malinga-Musamba, T. (2015). *Traditional practices and youth rights in Botswana: striking a balance* [Online]. <https://ubrisa.ub.bw/bitstream/handle/10311/1623/397-1243-1-PB.pdf?sequence=1&isAllowed=y>
- Manca, S., & Ranieri, M. (2016). Facebook and the others. Potentials and obstacles of social media for teaching in higher education. *Computers & Education*, 95, 216-230.
- Mao, W., & Wang, Z. (2022). Ethical framework of social media based on text analysis of terms of service of six major platforms. *Journal of Sensors*, 2022. doi: 10.1155/2022/1136017
- Mapadimeng, M. (2009). Culture versus religion: A theoretical analysis of the role of indigenous African culture of ubuntu in social change and economic development in the post-apartheid South African society. *Politics and Religion*, 3(1), 75-98.
- Marcum, C. D., & Higgins, G. E. (2021). *Cybercrime: Peer acceptance and internet habits*. Routledge.
- Maringe, F. (2015). Youth, social media and moral panics in Sub-Saharan Africa. *African Journal of Communication*, 2(1), 1–15.
- Masilo, B., & Seabo, B. (2015). Facebook: Revolutionising electoral campaign in Botswana. *Journal of African Elections*, 14(2), 110-129.
- Mason, R. O. (1986). Four ethical issues of the information age. *MIS Quarterly*, 10(1), 5-12.

- Masrom, M., Mahmood, N. H. N., & Zainon, O. (2013). Cyberethics and internet behaviour of Malaysian primary education students. *Journal of Emerging Trends in Educational Research and Policy Studies*, 4(1), 105-111.
- Matingwina, T. (2015). Ethical dilemmas confronting information professionals in the 21st century: A Zimbabwean perspective. *Zimbabwe Journal of Science & Technology*, 10, 85-100.
- McMillan, J. H., & Schumacher, S. (2006). *Research in education: Evidence-based inquiry*. (6th ed.). Pearson/Allyn & Bacon.
- Media Institute of Southern Africa. (2020). *An analysis of social media use in the SADC region 2014-2020* [Online]. Retrieved from <http://kubatana.net/wp-content/uploads/2020/10/An-analysis-of-Social-Media-use-in-The-SADC-region-2014-2020.pdf>
- Mertens, D. M. (2010). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (3rd ed.). SAGE Publications.
- Mill, J. S. (2007). Utilitarianism. (Original work published 1863). Milosevic, T. (2016). Social media companies' cyberbullying policies. *International Journal of Communication*, 10, 5164-5185.
- Ming M. T., Jabar, M. A., Sidi, F., & Wei, K. T. (2015). A systematic literature review of computer ethics issues. *Journal of Theoretical and Applied Information Technology*, 78(3), 360-372.
- Mokgoro, J. Y. (1997). Ubuntu and the law in South Africa. *Buffalo Human Rights Law Review*, 4(1), 15-23.
- Moor, J. (1985). What is computer ethics? *Metaphilosophy*, 16(4), 266-275. doi: 10.1111/j.1467-9973.1985.tb00173.x
- Moor, J. H. (2016). Why we need better ethics for emerging technologies. *Ethics and Information Technology*, 18(4), 275-284. <https://doi.org/10.1007/s10676-016-9409-0>

- Moore, A. D. (2016). Privacy, speech, and values: What we have no business knowing. *Ethics and Information Technology*, 18(1), 41–49. <https://doi.org/10.1007/s10676-016-9397-x>
- Mosweu, T. (2020). Social media use and the proliferation of fake news during the COVID-19 pandemic in Botswana: The archives and records management dilemma. *Southern African Journal of Communication and Information Science*, 1(1), 38-53.
- Mpoeleng, D. (2016). *ICT literacy policy – Botswana: study and report by Botswana IFAP committee* [Online]. Retrieved from http://www.unesco.org/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap/meetings/council/ifap_botswana_ict_literacy_report_9thifapcouncil.pdf
- Mshoka, M., & Mapunda, G. (2023). Digital literacy levels among secondary school students in Tanzania.
- Mugweni, L., et al. (2023). Integrating ethics in the digital classroom: Perspectives from Southern Africa.
- Mullen, P. R., Griffith, C., Greene, J. H., & Lambie, G. W. (2014). *Social media and professional school counselors: Ethical and legal considerations*. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1034737.pdf>
- Mullen, P. R., Morris, C., & Lord, M. (2017). The Experience of Ethical Dilemmas, Burnout, and Stress among Practicing Counselors. *Counseling and Values*, 62(1), 37-56.
- Mutsvairo, S. (Ed.). (2016). *Digital activism in the social media era: Critical reflections from emerging networks in the Global South*. Palgrave Macmillan.
- Mutula, S. M. (2013a). Ethical dimension of social media in education: Implication for content generation and use. *Innovation: Journal of Appropriate Librarianship and Information Work in Southern Africa*, 47, 43-69.
- Mutula, S. M. (2013b). Ethical dimension of the information society: Implications for Africa. In D. N. Ocholla, J. J. Britz, R. Capurro, & C. Bester (Eds.), *Information ethics in Africa: Cross-cutting themes* (pp. 29–43). Pretoria, South Africa: African Centre of Excellence for Information Ethics (ACEIE), University of Pretoria.

- Mutula, S. M. (2013c). Ethical dimensions of ICT in Africa. *African Journal of Information and Communication*, 13, 1–16. <https://doi.org/10.23962/10539/19381>
- Mutula, S. M. (2013d). Policy gaps and technological deficiencies in social networking environments: Implications for information sharing. *South African Journal of Information Management*, 15(1), 1-9. doi: 10.4102/sajim.v15i1.542
- Mwadime, E. M. (2012). An investigation of the impact of online social networking on academic performance among high school students in urban areas: A case study of Westlands Sub-county, Nairobi (Master's thesis, University of Nairobi).
- Narayanan, V. (2018). 21 lessons for the 21st century. Penguin Random House.
- Nissenbaum, H. (2010). *Privacy in context: Technology, policy, and the integrity of social life*. Stanford University Press.
- Nowak, M. (2017). Two billion people coming together on Facebook. *Meta*.
<https://about.fb.com/news/2017/06/two-billion-people-coming-together-on-facebook/>
- Nucci, L., & Narvaez, D. (Eds.). (2008). *Handbook of moral and character education*. Routledge.
- Nussbaum, M. C. (2003). Capabilities as fundamental entitlements: Sen and social justice. *Feminist Economics*, 9(2–3), 33–59.
- Nussbaum-Beach, S. (2012). Social media is changing the way we live and learn. In S. McLeod & C. Lehmann (Eds.), *What school leaders need to know about digital technologies and social media* (pp. 62-67).
- Nyangeni, T., Du Rand, S., & Van Rooyen, D. (2015). Perceptions of nursing students regarding responsible use of social media in the Eastern Cape. *Curationis*, 38(2), 1-9. doi: 10.4102/curationis.v38i2.1496
- O'Reilly, M., Levine, D., & Law, E. (2021). Applying a 'digital ethics of care' philosophy to understand adolescents' sense of responsibility on social media. *Pastoral Care in Education*, 39(2), 91-107. doi: 10.1080/02643944.2020.1774635

- OECD. (2021). 21st-century readers: Developing literacy skills in a digital world. OECD Publishing. <https://doi.org/10.1787/a83d84cb-en>
- Oladokun, O. (2013). The ubiquitous impact of social media: The good, the bad and the ugly. *Innovation: Journal of Appropriate Librarianship and Information Work in Southern Africa*, 47, 245-266. <https://journals.co.za/toc/innovation/2013/47>
- Olatokun, W., & Moremedi, B. (2011). Internet access, use and monitoring policies in Botswana organisations. *Annals of Library and Information Studies*, 58, 282-294. https://www.researchgate.net/publication/266439831_Internet_access_use_and_monitoring_policies_in_Botswana_organizations
- Olatokun, W., & Opesade, O. (2008). An investigation into the digital divide in the Nigerian civil service. *African Journal of Library, Archives and Information Science*, 18(2), 133–145.
- Oliver, P. (2003). The student's guide to research ethics. Open University Press. *Annals of Library and Information Studies*, 58(3), 282–294.
- Organization of African Unity (OAU). (1990). *African Charter on the Rights and Welfare of the Child*. OAU Doc. CAB/LEG/24.9/49.
- Osei-Twumasi, C., & Agyekum, K. O. (2022). Information ethics and digital literacy practices among university students. *Library Philosophy and Practice*. <https://digitalcommons.unl.edu/libphilprac>
- Oyetunde, J. O. (2017). *Influence of Facebooking and social media use on academic performance among Nigerian undergraduate social sciences students* (Doctoral dissertation, UNISA). (Master's thesis, University of South Africa). University of South Africa Institutional Repository. <https://ir.unisa.ac.za/handle/10500/22698>
- Palfrey, J., & Gasser, U. (2016). *Born digital: How children grow up in a digital age* (Revised and updated ed.). Basic Books.

- Pangrazio, L., & Selwyn, N. (2021). Towards a viable user-centred data protection: Data justice and data literacy. *New Media & Society*, 23(8), 2267–2286.
<https://doi.org/10.1177/1461444820912533>
- Perrin, A., & Anderson, M. (2019). *Share of U.S. adults using social media, including Facebook, is mostly unchanged since 2018*. Pew Research Center.
- Peslak, A. R. (2016). Papa revisited: A current empirical study of the mason framework. *Journal of Computer Information Systems*, 46(3), 117-123. doi: 10.1080/08874417.2006.11645905
- Peslak, A., Ceccucci, W., & Sendall, P. (2012). An empirical study of social networking behavior using theory of reasoned action. *Journal of Information Systems Applied Research*, 5(3), 12.
- Petrosyan, A. (2025). Worldwide digital population. *Statista* [Online].
<https://www.statista.com/statistics/617136/digital-population-worldwide/> (Retrieved October 9, 2025)
- Potter, R. B. (1965). The structure of certain American Christian responses to the nuclear dilemma, 1958-1963 (Doctoral thesis, Harvard University).
- Powell, A., & Henry, N. (2020). Sexual violence in the digital age. Palgrave Macmillan.
<https://doi.org/10.1007/978-3-030-32374-1>
- Rainie, L., & Anderson, J. (2017). The Fate of Online Trust in the Next Decade. *Pew Internet*. [Online]. <http://www.pewinternet.org/2017/08/10/the-fate-of-online-trust-in-the-next-decade/>
- Rest, J. R. (1986). *Moral development: Advances in research and theory*. New York, NY: Praeger. (xv + 224 pp.)
- Roberts, C., & Grant, A. E. (2010). Ethical Issues. In Van Tassel and Poe-Hoefield, *Managing Electronic Media: Making, Moving and Marketing Digital Content*. doi: 10.1016/B978-0-240-81020-1.00015-4

- Robinson, D. A. (2003). *Ethics and ethical dilemmas, introducing the business ethics synergy star- a technique for defining a dilemma and resolving it* [Online]. Retrieved from https://eprints.qut.edu.au/1119/1/robinson_1119.pdf
- Rodriguez, J. T., & Obradovac, I. (2017). *Comparative study on user's perception of privacy issues on Facebook: Young adults vs. adults in Sweden* [Online]. Retrieved from <http://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1120859&dswid=5528>
- Rodriguez-Gomez, D., Castro, D., & Meneses, J. (2018). Problematic uses of ICT among young people in their personal and school life. *Comunicar*, 56, 91-100. doi: 10.3916/C56-2018-09
- Roodt, S., & Peier, D. (2013). Using YouTube in the classroom for the net generation of students. In *Proceedings of the Informing Science and Information Technology Education Conference* (pp. 473-488). Informing Science Institute.
- Ruggiero, V. R. (1996). *Thinking critically about ethical issues*. Mayfield Publishing Company.
- Sadleir, E., & Harrison, L. (2017). *Selfies, sexts and smartphones: A teenager's online survival guide*. Penguin Random House Australia.
- Sætra, H. S. (2021). The foundations of a theory of digital dignity. *AI & Society*, 36(4), 1223–1235. <https://doi.org/10.1007/s00146-020-00965-3>
- Saini, N., & Mir, S. A. (2023). Social media: Usage and the impact on education. *Journal of Namibian Studies: History, Politics, Culture*, 33, 4670-4689. doi: 10.59670/jns.v33i.4041
- Sandifer, S., & Davies, V. A. (2012). Wikis. In S. McLeod & C. Lehmann (Eds.), *What school leaders need to know about digital technologies and social media*. John Wiley & Sons.
- Sargolzaei, E., & Nikbakht, M. (2017). The ethical and social issues of information technology: A case study. *International Journal of Advanced Computer Science and Applications*, 8(10), 138-146.
- Schutt, R. K. (2006). *Investigating the social world: The process and practice of research*. Sage Publications.

- Seitio-Kgokgwe, O., Mafa, R. K., & Mbe, L. S. (2023). adoption and utilisation of integrated patient management system in Botswana public health facilities. *E-Journal of Humanities, Arts and Social Sciences*, 4(4), 442-454. doi: 10.38159/ehass.20234416.
- Setlhabi, G. (2014). The role of *Botho/Ubuntu* in moral education in Botswana. *International Journal of Scientific Research in Education*, 7(2), 103–116.
- Shade, L. R., & Singh, R. (2016). “Honestly, we’re not spying on kids”: School surveillance of social media. *Social Media + Society*, 2(4).
<https://doi.org/10.1177/2056305116675821>
- Shumba, A., Mpofu, E., Seotlwe, M., & Montsi, M. R. (2017). Perceived challenges of implementing the guidance subject in Botswana primary schools. *Journal of Social Sciences*, 28(1), 1-11. doi: 10.1080/09718923.2011.11892923
- Silverman, D. (1993). Beginning research. In *Interpreting qualitative data: Methods for analysing talk, text and interaction* (pp. 25–49). Sage Publications.
- Singh, A., & Power, T. (2021). Understanding the privacy rights of the African child in the digital era. *African Human Rights Law Journal*, 21(1), 99-125. doi: 10.17159/1996-2096/2021/v21n1a6
- Smith, A., & Anderson, M. (2018). Social media use in 2018. *Pew Research Centre* [Online]. Retrieved from <http://www.pewinternet.org/2018/03/01/social-media-use-in-2018/>
- Snelson, C. L. (2016). Qualitative and mixed methods social media research: A review of literature. *International Journal of Qualitative Methods*, 15(1), 1-15. doi: 10.1177/1609406915624574
- Spence, E., & Van Heekeren, B. (2005). *Advertising ethics*. Pearson Prentice Hall.
- Stahl, B. C. (2021). Artificial intelligence for a better future: An ecosystem perspective on the ethics of AI and emerging digital technologies. Springer. <https://doi.org/10.1007/978-3-030-69978-5>
- Statistics Botswana. (2014). *Botswana household access and individual use of information and communication technologies 2014*. Statistics Botswana.

- Statistics Botswana. (2015). *Secondary education statistics 2013*. Retrieved from <http://www.statsbots.org.bw/sites/.pdf>
- Statistics Botswana. (2016). *Information and communication technology statistics 2014*. Statistics Botswana.
- Statistics Botswana. (2017). *Secondary education statistics brief 2014*. Retrieved from <http://www.statsbots.org.bw/sites/.pdf>
- Statistics Botswana. (2023). *Botswana information and communication technology stats brief Q1 2023*. Retrieved from <https://www.statsbots.org.bw/sites/default/files/publications/Botswana%20Information%20and%20Communication%20Technology%20%20Stats%20Brief%20Q1%202023.pdf>
- Statistics Botswana. (2023). *Mobile cellular subscriptions – Q1 2023*. Statistics Botswana. <https://www.statsbots.org.bw/>
- Steyn, G. (2012). The influence of botho on social space in Botswana since independence. *South African Journal of Art History*, 27(3), 112-129.
- Stückelberger, C. (2014). Globethics.net principles on ethics in the information society. In A. Preisig, H. Rosch, & C. Stückelberger (Eds.), *Ethical dilemmas in the information society: How codes of ethics help to find ethical solutions. Papers from the IFLA/FAIFE Satellite meeting 2014* (pp. 15–22). Globethics.net Foundation / IFLA-FAIFE.
- Sturges, J. E., & Hanrahan, K. J. (2004). Comparing telephone and face-to-face qualitative interviewing: A research note. *Qualitative Research*, 4(1), 107-118. doi: 10.1177/1468794104041110
- Swenson-Lepper, T., & Kerby, A. (2019). Cyberbullies, trolls, and stalkers: Students' perceptions of ethical issues in social media. *Journal of Media Ethics*, 34(2), 102-113. doi: 10.1080/23736992.2019.1599721
- Taddeo, M., & Floridi, L. (2022). The ethics of artificial intelligence for the sustainable development goals. Springer. <https://doi.org/10.1007/978-3-030-81907-7>

- Tadele, B. (2013). *Motivations behind software piracy: From the viewpoint of computer ethics theories* (Master's thesis, University of Oulu). University of Oulu repository.
- Tavani, H. T. (2013). *Ethics and technology: Controversies, questions, and strategies for ethical computing* (4th ed.). Wiley.
- Taylor. (2025). Number of mobile subscriptions worldwide 2005-2024, by region. Statista. Retrieved from <https://www.statista.com/statistics/496125/global-mobile-subscriptions-by-region/>
- Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research*, 1(1), 77-100. doi: 10.1177/1558689806292430
- Tess, P. A. (2013). The role of social media in higher education classes (real and virtual)—A literature review. *Computers in Human Behavior*, 29(5), A60–A68. <https://doi.org/10.1016/j.chb.2012.12.032>
- Teston, G. (2008). Software piracy among technology education students: Investigating property rights in a culture of innovation. *Journal of Technology Education*, 20(1), 66-78.
- The Cyberbullying Research Centre. (2018). What is cyberbullying? Retrieved from <https://cyberbullying.org/what-is-cyberbullying>
- The Economist. (2014). *Mobile Phones: The rise of the cheap smartphone* [Online]. Retrieved from <https://www.economist.com/news/business/21600134-smartphones-reach-masses-host-vendors-are-eager-serve-them-rise-cheap>
- Thunman, E., & Persson, M. (2017). Ethical dilemmas on social media: Swedish secondary teachers' boundary management on Facebook. *Teacher Development*, 21(1), 1-16. doi: 10.1080/13664530.2017.1371634
- Tsholetso, T., Maunganidze, L., & Faimau, G. (2017). Online social networking and academic performance at the University of Botswana. *Mosenodi*, 20(2), 4-15.
- Tshotetsi, L. (2021). Cultural values and digital youth behaviour in Southern Africa. *Journal of African Media Studies*, 13(3), 389–405. https://doi.org/10.1386/jams_00056_1

- Twitter. (2018). *The Twitter Rules*. Retrieved from <https://help.twitter.com/en/rules-and-policies/twitter-rules>
- Twitter. (2022). *The Twitter rules*. Twitter, Inc. <https://help.twitter.com/en/rules-and-policies/twitter-rules>
- Ulvik, M., Smith, K., & Helleve, I. (2017). Ethical aspects of professional dilemmas in the first year of teaching. *Professional Development in Education*, 43(2), 236-252. doi: 10.1080/19415257.2016.1178163 UNESCO Institute for Information Technologies in Education. (2012). *Cyberbullying* (Policy Brief). UNESCO.
- UNESCO. (2015). Global citizenship education: Topics and learning objectives. UNESCO. *Journal of Educational Research and Practice*, 2024, 33 (2) 32–54. <https://journals.library.brocku.ca/brocked>
- UNESCO. (2015). Information and communication technology (ICT) in education in sub-Saharan Africa: A comparative analysis of basic e-readiness in schools. Prepared by Peter Wallet. doi: <http://dx.doi.org/10.15220/978-92-9189-178-8-en>
- UNESCO. (2019). *Internet universality indicators: A framework for assessing internet development*. UNESCO Publishing. <https://unesdoc.unesco.org/ark:/48223/pf0000367617>
- UNESCO. (2023). *Technology in education: A tool on whose terms? Global Education Monitoring Report*. UNESCO Publishing.
- United Nations General Assembly Economic and Social Council. (2023). *Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels*. Retrieved from https://unctad.org/system/files/official-document/a78d62_en.pdf
- United Nations General Assembly. (1989). *Convention on the Rights of the Child*. United Nations. Treaty Series, 1577, 3.
- United Nations Office on Drugs and Crime. (n.d.). *Module 10: Media Integrity and Ethics*. Retrieved from <https://www.unodc.org/e4j/en/integrity-ethics/module-10/introduction-learning-outcomes.html>

- United Nations. (1948). *Universal Declaration of Human Rights*. Retrieved from <http://www.un.org/en/universal-declaration-human-rights/index.html>
- Valkenburg, P. M. (2022). Social media use and well-being: A differentiated and dynamic model. *Current Opinion in Psychology*, 45, 101294. <https://doi.org/10.1016/j.copsyc.2021.12.004>
- Valkenburg, P. M., & Piotrowski, J. T. (2017). *Plugged in: How media attract and affect youth*. Yale University Press.
- Valkenburg, P. M., Meier, A., & Beyens, I. (2022). Social media use and adolescents' self-esteem: Heading for a personalized media effects paradigm. *Communications*, 47(1), 1–28. <https://doi.org/10.1515/commun-2021-0120>
- Vallor, S. (2010). Social networking technology and the virtues. *Ethics and Information Technology*, 12(2), 157-170. doi: 10.1007/s10676-009-9202-1
- van der Waltd, G. (2021). The judicious use of theory in social science research. *The Journal for Transdisciplinary Research in Southern Africa*, 17(1), 9 pages. doi: <https://doi.org/10.4102/td.v17i1.1039>
- Vogels, E. A., & Gelles-Watnick, R. (2023). *Teens and social media: Key findings from Pew Research Center surveys*. Retrieved from <https://www.pewresearch.org/short-reads/2023/04/24/teens-and-social-media-key-findings-from-pew-research-center-surveys/>
- Vogl, S. (2013). Telephone versus face-to-face interviews: Mode effect on semi-structured interviews with children. *Sociological Methodology*, 43(1), 133-177. doi: 10.1177/0081175012465967
- Vonage. (2024). *Vonage research reveals nearly half of consumers expect 24/7 customer service support, nearly three quarters will switch businesses following a subpar experience*. Retrieved from <https://www.vonage.com/about-us/newsroom/press-releases/Vonage-Research-Reveals-Nearly-Half-of-Consumers-Expect-247-Customer-Service-Support-Nearly-Three-Quarters-Will-Switch-Businesses-Following-a-Subpar-Experience/>

- Wagner, C., Kawulich, B., & Garner, M. (Eds.). (2012). *Doing social research: A global context*. McGraw-Hill Higher Education.
- Wardle, C., & Derakhshan, H. (2017). Information disorder: Toward an interdisciplinary framework for research and policymaking. Council of Europe.
- Watley, L. D. (2014). Training in ethical judgment with a modified Potter Box. *Business Ethics: A European Review*, 23(1), 83-94. <https://doi.org/10.1111/beer.12034>
- Westrick, S. J. (2016). Nursing students' use of electronic and social media: Law, Ethics, and E-Professionalism. *Nursing Education Perspectives*, 37(1), 16-22.
- Whittle, C., Hamilton-Giachritsis, C., Beech, A., & Collings, G. (2019). Social media use and adolescent mental health: A systematic review. *Journal of Adolescence*, 72, 1–13. <https://doi.org/10.1016/j.adolescence.2019.02.010>
- Wiid, J. A., Cant, M. C., & Nell, C. E. (2014). Perceptions and uses of social media networking systems by South African students. *The International Business & Economics Research Journal*, 13(4), 715-726.
- Willard, N. E. (2007). *Cyberbullying and cyberthreats: Responding to the challenge of online social aggression, threats, and distress*. Research Press.
- Willis, J. E., Campbell, J. P., & Pistilli, M. D. (2013). Ethics, big data, and analytics: A model for application. *EDUCAUSE Review Online*. Retrieved from <https://www.researchgate.net/publication/289148870>
- Wiredu, K. (1996). *Cultural universals and particulars: An African perspective*. Indiana University Press.
- Wong, P. H. (2009). What should we share? Understanding the aim of intercultural information ethics. *ACM SIGCAS Computers and Society*, 39(3), 50-58.
- World Health Organization. (1948). *Constitution of the World Health Organization* (Preamble: definition of health). WHO

- World Population Review. (2017). *Botswana Population* [Online]. Retrieved from <http://worldpopulationreview.com/countries/botswana-population/>
- World Summit on the Information Society. (2003). *Declaration of principles: Building the information society—a global challenge in the new millennium*. Geneva: International Telecommunication Union [Online].
<https://www.itu.int/net/wsis/docs/geneva/official/dop.html>
- World Summit on the Information Society. (2005). *Tunis Agenda for the Information Society*. Geneva: International Telecommunication Union. Retrieved from https://www.itu.int/net/wsis/outcome/booklet/tunis-agenda_C.html
- Yardi, S. A. (2012). Social media at the boundaries: Supporting parents in managing youth's social media use (Doctoral dissertation, Georgia Institute of Technology). Retrieved from http://yardi.people.si.umich.edu/pubs/yardi_sarita_a_201212_phd.pdf
- Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Sage Publications.
- Zhanda, E., Molokwane, T., & Motshegwa, B. (2020). Integrating social media in teaching and learning in higher education: A quest for collaborative learning in Botswana. *International Journal of Science and Research (IJSR)*, 9(4), 131–138.
<https://doi.org/10.21275/SR2040201435410.21275/SR20402014354>
- Zhou, J., Müller, H., Holzinger, A., & Chen, F. (2023). *Ethical ChatGPT: Concerns, challenges, and commandments*. arXiv preprint arXiv:2305.10646. Available: <https://arxiv.org/pdf/2305.10646.pdf>
- Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. PublicAffairs.

APPENDICES

Appendix 1: Questionnaire (Students)

Dear Student,

My name is Tsvakai Elizabeth Mashingaidze a PhD student at the University of KwaZulu-Natal, School of Social Sciences in the Department of Information Studies. You are being invited to consider participating in a study that involves research on the ethical dilemmas of social media use by senior secondary school students in Gaborone, Botswana. The aim and purpose of this research is to find out some of the ethical issues and complexities that come up in the use of social media. Participation in this research is voluntary and participants may withdraw participation at any point without incurring a penalty. However the researcher will be very grateful if you are able to participate successfully in this research. There are no costs or rewards associated with this study. Confidentiality and anonymity of participants will be preserved and data will be securely stored. The researcher will adhere to the laws of Botswana throughout the research and will notify authorities of any misconducts observed. Please take time to respond to this questionnaire. The approximate time it will take you to complete the questionnaire is about 1 hour.

Thank you.

CONSENT

I (Name) have been informed about the study entitled ‘Ethical dilemmas in the use of social media by students in public senior secondary schools in Gaborone, Botswana’ by Tsvakai Elizabeth Mashingaidze.

I understand the purpose and procedures of the study.

I have been given an opportunity to ask questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher:

Tsvakai Elizabeth Mashingaidze

University of KwaZulu-Natal

College of Humanities

Faculty of Social Science

Private Bag X01

Scottsville 3209 PMB

South Africa

Phone: + ()

E-mail: .om

If I have any questions or concerns about my rights as a study respondent, or if I am concerned about an aspect of the study or the researchers then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557 - Fax: 27 31 2604609 Email: HSSREC@ukzn.ac.za

Signature of Participant

Section A: Demographic Information

Please indicate your most appropriate response by ticking the response.

1. Name of your School: St Joseph's [] GSS [] Ledumang [] Naledi []

2. Age: 18 years [] Above 18 years []

3. Gender: Male [] Female []

Section B: Social Media Use

4. I started using social media when I was in: Primary school [] Junior secondary school []
Senior secondary school []

5. I was introduced to social media by: Self [] Parent [] Sibling [] Friend []
Teacher []

6. How often do you use the following social media platforms? Tick appropriate

	Always	Very often	Sometimes	Rarely	Never
Facebook					
Twitter					
Wikipedia					
LinkedIn					
WhatsApp					
YouTube					
Instagram					

7. Specify any other social media platform that you use.

8. The amount of time I spend on social media per day is: Less than 30 minutes []

30 minutes to 1hour [] 1 to 2 hours [] 2 to 3 hours [] More than 3 hours []

9. I use social media on the following devices

	Always	Very often	Sometimes	Rarely	Never
Smart phone					
Desktop computer					
Laptop					
Tablet					

10. I use social media in the following places

	Always	Very often	Sometimes	Rarely	Never
At school					
At home					
At the internet cafe					
At friends' place					

11. Specify any other place you use social media apart from the ones above.

12. I communicate through social Media with my

	Always	Very often	Sometimes	Rarely	Never
teacher/s					
parent/s					

13. I have more than one account/profile on the following social media platforms

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Facebook					
Twitter					
Wikipedia					
Linked					
WhatsApp					
YouTube					
Instagram					

14. Name any other platforms you have more than one user profile

15. I use social media for the following activities

	Always	Very often	Sometimes	Rarely	Never
Get entertainment					
Meet new people					
Connecting with friends and family					
Marketing my products					
School work					
Buying stuff					
Downloading music					
News and current affairs					
Downloading software					

16. Please state what else you use social media for?

17. When I use social media for school work I mainly use it for:

	Always	Very often	Sometimes	Rarely	Never
Homework					
Group discussions with classmates					
Watching educational videos					
Study groups with students from other schools					
Communicating with teachers					

18. Other than for school work outlined above what else do you use social media for?_____

19. I have experienced the following challenges when using social media

	Always	Very often	Sometimes	Rarely	Never
Bullying					
Inappropriate materials including pornography					
Hate speech					
Hacking					
Trolling					
Fake news/misinformation					
Failure to understand some languages					
Stalking					
Addiction to social media					
People using my information and images without permission					
Plagiarism					
People hiding their true names and identities					

20. Apart from those listed above, which other challenges have you met when using social media? Please list them here.

21. When using social media I usually choose between two conflicting actions which are both right (ethical dilemmas) which include choosing between the following,

	Always	Very often	Sometimes	Rarely	Never
School rules or human rights of free speech freedom of expression and others					
Upholding my rights to free speech and respecting someone's dignity					
Respecting and upholding the right to access information and ensuring safety and security					
Property rights and freedom of access to information					
Preserving privacy and respecting right to access of information					
The values of Botho and human rights					

22. What other ethical dilemmas have you faced when using social media? Please list them.

23. I consider the following aspects when faced with tough situations where I have to choose one of two or more actions which are all right (ethical reasoning when faced with a dilemma)

	Always	Very often	Sometimes	Rarely	Never
Issue of Respect					
Issue of Humility					
Issue of Kindness					
Issue of Love					
Issues of Decency					
Issue Compassion					
Issue of Unity					
Issue of Right to freedom of speech					
Issue of Right to freedom of expression					
Issue of Right to freedom to be left alone					
Issue of Right to privacy					

Issue of Right to access information					
Issue of Right to dignity					
Issue of Right to ownership/copyright					
The action that benefits more people					
The rules of nature					
The government laws					
My religious beliefs					
I do not consider anything					

24. What other aspects over and above those listed above do you consider?

25. When faced with ethical dilemmas whilst using social media where do you get help?

	Always	Very often	Sometimes	Rarely	Never
Teachers are helpful					
Parents are helpful					

26. Who else is helpful in resolving ethical dilemmas on social media for you?

27. There are rules on how to use social media at our school: Yes [] No [] Not Sure []

28. Provide suggestions how social media can be effectively used by secondary school students

The end

Appendix 2: Interview Guide (Parents)

Interview guide for parents

1. Demographic Information

Name, Age, Gender, Occupation, Children's ages

2. Please share your experience of social media.

Which social media platform/s do you use?

Through which devices do you access social media from, smart phone, laptop or desktop computer?

What do you use these social media platforms for?

How much time do you spend on social media sites on each day?

3. Can you share with me about your child's experiences with social media?

Where does your child go to school?

When and why did your child start to use social media?

Do you allow your children to use social media?

What is your child using social media for?

Are you aware of the social media platforms your child uses?

Have you befriended your child on social media?

Approximately how much time does your child spend on social media?

Have you instituted and controls on your child/ren's use of social media? How and why?

4. What are some of the benefits do you think social media has brought in the lives of students and others?

5. Describe issues that you have experienced as a result of your use of social media.

6. What ethical dilemmas have you faced with the use of social media

Have you ever experienced a situation relating to the rights to privacy, dignity, safety, access to information, ownership of information or pictures you post online, rights to dignity and rights to accurate information online where these appeared to be in conflict with each other and there was no clear course of action? Please describe the situation.

7. How have you resolved the ethical dilemmas that come with social media use?

How did you end up choosing one option over the other?

Did you consider rules, fear of the consequences or character virtues that you maintain in solving the dilemma? Explain.

8. What issues or problems are faced by your child in their use of social media?

9. How have your children resolved the ethical dilemmas they face in social media use?

10. Have you ever assisted your child resolve an ethical dilemma they were facing in social media use?

Have you experienced you child going through a situation relating to the rights to privacy, dignity, safety, access to information, freedom of expression, ownership of information or pictures you post online, and rights to get accurate information on social media where these appear to be in conflict and there is no clear course of action to follow? Please describe the situation.

- 11. Do you believe you have an important role to play in your child's use of social media? Explain.**
- 12. Are you aware of the policies and terms of use regarding use of the social media platforms you use?**

End

Appendix 3: Interview Guide (Teachers)

Interview guide for teachers

1. Demographic Information

Age, Gender, Highest qualification, Department, Subject taught, Teaching experience

2. Elaborate on your use of social media use

Which social media platform/s do you use?

Through which devices do you access social media?

Where do you usually use social media?

What do you use these social media platforms for?

How many accounts of each social media platform do you have?

How much time do you spend on social media sites on each day?

3. Share your experience of social media use by students

What in your opinion is common use of social media by students?

To what extent is use of social media allowed in school?

How often do you engage with your students on social media and for what purposes?

Does the school have social media etiquette for students?

4. What ethical issues arise from your students' use of social media?

For students, for yourself, for school

How are such issues dealt with?

5. Describe the ethical dilemmas you face with social media use?

Regarding privacy, dignity, human rights, safety, access, property and accuracy when students use social for learning and communication purposes?

6. How do you resolve the ethical dilemmas you face in social media use?

7. Relate your understanding of the ethical dilemmas students face in social media use.

Give some of these dilemmas.

8. How do you or the school assist students to resolve ethical dilemmas that they face?

How easy is it for you to offer assistance to students?

How often do you assist students in resolving ethical dilemmas on social media platforms?

9. What in your opinion is the role of teachers and parents in assisting students in responsible conduct in social media environments?

What challenges are faced in this respect?

10. Are you aware of social media platforms policies and terms of use?

Do you appreciate their importance?

Do you discuss these with students?

11. What policy interventions are needed to assist students cope with ethical dilemmas they face in using social media at school and at home?

End

Appendix 4: Ethical Clearance Letters



09 November 2018

Mrs Tsvakai Elizabeth Mashingaidze (217080906)
School of Social Sciences
Pietermaritzburg Campus

Dear Mrs Mashingaidze,

Protocol reference number: HSS/0407/018D

Project title: Ethical dilemmas in the use of social media by students in public senior secondary schools in Gaborone, Botswana

Approval Notification – Expedited Application

In response to your application received 03 May 2018, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully



Professor Shenuka Singh (Chair)

/ms

Cc Supervisor: Professor Stephen Mutula
Cc Academic Leader Research: Professor Maheshvari Naidu
Cc School Administrator: Ms Nancy Mudau

Humanities & Social Sciences Research Ethics Committee

Professor Shenuka Singh (Chair)

Westville Campus, Govan Mbeki Building

Postal Address: Private Bag X54001, Durban 4000

Telephone: +27 (0) 31 260 3587/8350/4567 Facsimile: +27 (0) 31 260 4609 Email: ethics@ukzn.ac.za ethics@ukzn.ac.za ethics@ukzn.ac.za

Website: www.ukzn.ac.za



Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

14 September 2020

Mrs Tsvakai Elizabeth Mashingaidze (217080906)
School of Social Sciences
Pietermaritzburg Campus

Dear Mrs Mashingaidze,

Protocol reference number: HSS/0407/018D

Project title: Ethical dilemmas in the use of social media by students in public senior secondary schools in Gaborone, Botswana

Approval Notification – Amendment Application

This letter serves to notify you that your application and request for an amendment received on 07 September 2020 has now been approved as follows:

- Change in data collection method

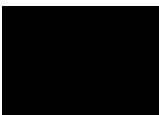
Any alterations to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form; Title of the Project, Location of the Study must be reviewed and approved through an amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

All research conducted during the COVID-19 period must adhere to the national and UKZN guidelines.

Best wishes for the successful completion of your research protocol.

Yours faithfully



.....
Professor Dipane Hlalele (Chair)

/dd

Cc Supervisor: Professor Stephen Mutula
Cc Academic Leader Research: Professor Maheshvari Naidu
Cc School Administrator: Ms Nancy Mudau

Humanities & Social Sciences Research Ethics Committee
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Tel: +27 31 260 8350 / 4557 / 3587
Website: <http://research.ukzn.ac.za/Research-Ethics/>

Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

INSPIRING GREATNESS

TELEPHONE: (267)
3972454/3625000
FAX: (267) 3972915/3975899



MINISTRY OF BASIC EDUCATION
Director, Regional Operations
South East
Private Bag 00343
GABORONE
BOTSWANA

07 November 2019

REF: SER 1/15/2 XI (161)

Tsvakai Elizabeth Mashingaidze
P/Bag X01
Scottsville 3209 PMMB
South Africa

Dear Sir/Madam,

EXTENTION OF RESEARCH T.E Mashangaidze

This serves to notify you about the extension of the above mentioned student's research exercise in the Ministry of Basic Education- South East Region. The research will be carried out at Gaborone Senior Secondary School, Naledi Senior Secondary, Ledumang Senior Secondary and St Joseph's from the 7th November 2019 to 6th November 2020. The research is on 'Ethical Dilemmas of Social Media use by Student in Senior Secondary Schools in Botswana.

Permission is hereby granted for you to carry out research as per your request

NB: It is a requirement by the Ministry for a researcher to avail his/her final research document to the Regional office

Thank you.

Yours faithfully,

A.Z. Ernest
For/ Director, Regional Operations, South East Region

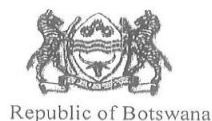
MOBE
MINISTRY OF BASIC EDUCATION

16885

5

Appendix 5: Gatekeeper Permission Letters

TELEPHONE: (267)
3972454/3625000
FAX: (267) 3972915/3975899



Republic of Botswana

MINISTRY OF BASIC EDUCATION

Director, Regional Operations
South East
Private Bag 00343
GABORONE
BOTSWANA

REF: SER 1/15/2 XI (12)

13 November 2018

Ms. Tsvakai E. Mashingaidze
P/Bag X01
Scoutsville
South Africa

Dear Sir/Madam,

PERMISSION TO CONDUCT A MINI RESEARCH PROJECT

Reference is made to your letter dated 13th November 2018 requesting to carry out research study in the Ministry of Education and Skills Development- South East Region. The research will be carried out at Kagiso Senior Secondary School, Moeding College, St Joseph's, College, Naledi Senior Secondary School, Ledumang Senior Secondary School and Gaborone Senior Secondary School from the 14th November 2018 to 14th November 2019. The research is on 'Ethical Dilemmas of Social Media use by Students in Senior Secondary School in Botswana'.

Permission is hereby granted for you to carry out research as per your request. The school has been notified of your intent and you are advised to contact them directly.

NB: It is a requirement by the Ministry for a researcher to avail his/her final research document to the Regional office

Thank you.

Yours faithfully,

A.Z. Ernest

For/ Director, Regional Operations, South East Region





St Joseph's College, Kgale.

P.O. Box 13 Gaborone.
Republic of Botswana
Phone No. 3952951
Fax No. 3957871
Email: stjosephs@info.bw

24 January 2018

University of KwaZulu-Natal
College of Humanities
Faculty of Social Science
Private Bag X01Scottsville 3209 PMB
South Africa

Dear Sir/Madam

Re: Request for permission to conduct research on Ethical Dilemmas of Social Media Use at our school.

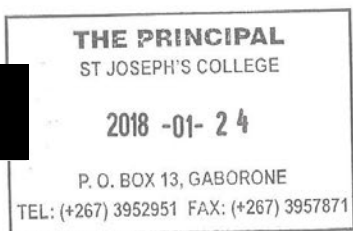
The above caption refers. As St Joseph's College we have authorised Tsvakai Elizabeth Mashingaidze to conduct her research in our school.

Thank you,

Yours faithfully



fw C. Male
PRINCIPAL



TELEPHONE: 3952508, 3951808
FAX: 3900351



GABORONE SECONDARY SCHOOL
PRIVATE BAG 0019, GABORONE
REPUBLIC OF BOTSWANA

RE: GSS 1/3/18 (1) RESEARCH

19 January 2018

Tsvakai E. Mashingaize
P.Bag X01
Sottsville 3209 PMB
South Africa

Dear Madam

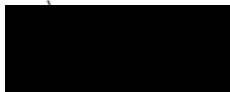
RE: PERMISSION TO CONDUCT A RESEARCH STUDY

This serves to grant you permission to conduct your study in Gaborone Senior Secondary School as per the request in your letter dated 15th November 2017. The research is on "Ethical Dilemmas in the use of social media by students in public senior secondary schools in Gaborone Botswana". Your permission is valid from 29th December 2017 to 29th December 2018.

The school will do all it can to support you during this time of your research with relevant stakeholders and/or participants. We hope that you will adhere to research ethics as stated in your proposal.

Thank you.

Yours faithfully



Mrs Kalane –Tshabangu
School Head

TELEPHONE: (267) 3952587
FAX: (267) 3911048



Republic Of Botswana

Naledi Senior Secondary School
P O Box 20527
GABORONE
BOTSWANA

MINISTRY OF BASIC EDUCATION

10th January 2018

Tsvakai Elizabeth Mashingaidze
P.O Box 80823
Gaborone

Dear Madam

RE: PERMISSION TO CONDUCT A RESEARCH STUDY

This serves to grant you permission to conduct your study in the sampled areas in Botswana to address the following research objectives/questions/topic:

We are available to assist from 29th January 2018.

Thank you.

Yours faithfully



O.Othutse
School Head



VISION: A school that strives for excellence and learners equipped with life skills

TELEPHONE: 3927627
FAX: 3927565



REPUBLIC OF BOTSWANA

LEDUMANG SENIOR SECONDARY SCHOOL
PRIVATE BAG BR 164
BROADHURST
GABORONE

MINISTRY OF BASIC EDUCATION

Ref: 1/6/10 I (100)

24 January 2018

TO WHOM IT MAY CONCERN

AUTHORISATION TO CARRYOUT RESEARCH IN LEDUMANG SENIOR SCHOOL

Mrs Tsvakai Elizabeth Mashingaidze has duly been granted permission to conduct a research in this Institution.

Thank you.



For/SCHOOL HEAD



Vision: we aspire to be a school of academic excellence with reputable values.

Mission: we exist to provide quality education to students through the efforts of all in order to produce responsible citizens who would compete well in the global community

