

**GOVERNANCE OF LIQUID COMMUNICATION GENERATED THROUGH THE  
USE OF SOCIAL MEDIA BY THE BOTSWANA GOVERNMENT**

**by**

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## ABSTRACT

Social networks have increasingly become a platform for liquid communication through which real business transactions take place. Liquid communication in this study refers to records generated by the government on social media for customer service, access to information and direct community involvement needs. The content on social media platforms can be shared and re-tweeted many times beyond the control of the creating agency, resulting in challenges regarding its management. The government of Botswana has been fully active in the use of social media as part of the government's electronic government programme, thereby generating liquid communication in the process. The unstable nature of liquid communication calls for its governance according to the established records management requirements. Using the Association of Records Managers and Administrators' (ARMA) Generally Accepted Recordkeeping Principles (GARP®) as a theoretical framework, this qualitative study examined the governance of liquid communication generated through the use of social media by the Botswana government with the view to developing a framework for liquid communication governance (See Table 1.1). Data were collected through interviews with a purposively chosen sample targeting public relation officers and policy makers based at the Botswana Government Communications and Information System (BGCIS) office, which manages the government of Botswana's social media platforms, as well as records managers and archivists, chief programmer and director, corporate services from other Botswana government departments with the role of information management such as the Botswana National Archives and Records Services (BNARS), the Botswana Communication and Regulatory Authority (BOCRA) and the Department of Information Technology (DIT) (See Table 4.2).

The key results suggest that the government of Botswana, through the BGCIS, mainly uses social media platforms such as Facebook and Twitter to communicate key decisions with the public. The analysis in this study revealed that despite the clear evidence of the Botswana government being active on social media platforms through its pages titled "BWGOVERNMENT", engaging with the citizens, social media entries were not considered or managed as records by the government. As a result of this no proper measures were put in place to ensure governance of liquid communication. The study revealed that the policy framework was lacking in that there was no social media policy, no measures in place to ensure the integrity of liquid communication, no regard for issues of retention and disposition of liquid

communication, as well as a lack of clearly defined roles and responsibilities for the governance of liquid communication in the country. This is despite the fact that the National Archives and Records Services Act of 1978 (as amended in 2007) (NARS Act) (amended in 2007), which is the principal records management legislation, recognises the existence of other records formats such as liquid communication through its definition of a record. The trends around the world show recognition by governments that social media content may constitute records and are managed accordingly. The literature indicates that other governments and organisations in countries such as the United Kingdom, the United States of America, Canada and Australia have social media policies and strategies to guide the management of social media content though less evidence amongst African countries. The study concludes that without a governance framework for liquid communication in place, the government faces the risk of losing evidential information required for legal, administrative, historical and compliance purposes. Additionally, the government may face the risk of losing its digital heritage. This study, therefore, proposes a framework for the governance of liquid communication to guide the government to manage content generated through the use of social media. A further study to make a comparison or do a benchmarking of the maturity of the governance of liquid communication between governments, for example within Southern Africa, using the proposed framework and/or the ARMA Information Governance Maturity Model is recommended.

**Key words:** Liquid communication, information governance, digital records, accountability, integrity, protection, availability, retention, disposition, government, Botswana government

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- This study was part of the InterPARES Trust Project, a multi-disciplinary and multinational research project based at the University of British Columbia (UBC), Canada, which is concerned with the management of digital records entrusted to the internet. As a result, I am very grateful for the inspiration and motivation by the InterPARES Trust to undertake this study, especially the Project Director, Professor Luciana Duranti. My gratitude also goes to Professor Patricia Franks for advising on data collection instruments.

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## **DEDICATION**

This thesis is dedicated to my mother, Galeboe Hosia. Mothers hardly get the recognition they duly deserve. It is through her love and humility that I have become the person I am today.

*It is the Mothers, not the warriors who create a people and guide their destiny*

- Luther Standing Bear

## DECLARATION

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### ***GOVERNANCE OF LIQUID COMMUNICATION GENERATED THROUGH THE USE OF SOCIAL MEDIA BY THE BOTSWANA GOVERNMENT***

I declare that the above thesis is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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SIGNATURE

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DATE

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## LIST OF ABBREVIATIONS

<b>ARMA:</b>	Association of Records Managers and Administrators
<b>BGCIS:</b>	Botswana Government Communications and Information System
<b>BNARS:</b>	Botswana National Archives and Records Services
<b>BOCRA:</b>	Botswana Communication and Regulatory Authority
<b>BOPA:</b>	Botswana Press Agency
<b>BTV:</b>	Botswana Television
<b>BW:</b>	Botswana
<b>DIT:</b>	Department of Information Technology
<b>ESARBICA:</b>	Eastern and Southern Africa Regional Branch of the International Council on Archives
<b>GARP:</b>	Generally Accepted Recordkeeping Principles
<b>ICA:</b>	International Council on Archives
<b>ICT:</b>	Information and Communication Technology
<b>IT:</b>	Information Technology
<b>ID:</b>	Identity Document
<b>InterPARES:</b>	International Research on Permanent Authentic Records in Electronic Systems
<b>IRMT:</b>	International Records Management Trust
<b>ISO:</b>	International Standards Organisation
<b>NARA:</b>	National Archives and Records Administration
<b>NARS:</b>	National Archives and Records Services
<b>OP:</b>	Office of the President
<b>PRO:</b>	Public Relations officer
<b>SMS:</b>	Short Message Service
<b>UNDP:</b>	United Nations Development Programme
<b>UNISA:</b>	University of South Africa
<b>USA:</b>	United States of America

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# **CHAPTER ONE**

## **BACKGROUND TO THE STUDY**

### **1.1 Introduction**

The increasing use of information and communication technology (ICT), in government operations around the world, driven by public sector reforms, has given impetus to the generation of digital records (Wamukoya & Mutula 2005). Just like their paper counterparts, digital records support the day-to-day operations of government services and interactions with citizens, private and public sector partners. The availability of ICTs and their inherent advantages in communication have now accelerated the use of social media by organisations to create and disseminate information, making it easier to reach a wide spectrum of users (Shaffer 2016:234). Social media has been defined in different ways by scholars. Gartner (2016) defines it as an online environment in which content is created, consumed, promoted, distributed, discovered or shared for purposes that are primarily related to communities and social activities, rather than functional, task-oriented objectives. The US Navy (2012) describes social media as a variety of communication media and platforms, including social networks, blogs and mobile applications. This social networking service is an online service, platform or website that focuses on building and reflecting social networks among people who share interests and activities (Boyd & Ellison 2007).

As observed by Begum (2015:i), social media has become an integral part of people's lives. For example, in the United States of America, the National Archives and Records Administration (2013) reports that 70% of agencies were using social media. In agreement with this, Latham (2014) observes that using social media as a communication tool can enable the government to reach new audiences, establish communities of practice, provide services and deliver important and effective messages to the community. The United States Department of Energy (2010) consequently advised that if one tweets, blogs, posts or uses other social media to conduct official business, the resultant records should be managed in accordance with records management principles. This is also the case in Botswana where social networking sites such as Facebook, Twitter, Google+, Pinterest, Instagram and LinkedIn have risen in popularity, like elsewhere in the world (Masilo & Seabo 2015). The Government of Botswana has embraced social media in its interaction with the public and regularly communicates with

citizens through social networking sites, especially Facebook and Twitter. This kind of communication has resulted in what is termed 'liquid communication'. Zapata (2013:ii) defines liquid communication as a type of communication that can easily go back and forth between the participants involved and that is neither restricted by time or space, nor dictated by any type of social status, for example e-mails. With Facebook, for example, users post or share information to recipients in the network and interaction takes place as recipients make comments where the one who initially posted can respond and the communication goes on and on continually. The same post can be shared several times, resulting in liquid communication, which is difficult to manage. Franks (2010:12) has recognised the need to govern social media content by noting that a historically decentralised approach to records management, when combined with the rapid changes underway in the use of social media by agencies, suggests the need to consider the development of a comprehensive Records and Information Management Governance structure which directly addresses social media. Hence, this study investigates the governance of liquid communications generated through the use of social media platforms by the Government of Botswana in order to propose a governance framework. Despite that revelation by Franks (2010) for the need to consider records management in social media initiatives, a recent study by Masekoameng (2018) also reveals that records generated through social media were not integrated into enterprise content management at the South African Broadcasting Authority, South Africa, as this organisation did not have guidelines for managing such records. This was corroborated by Mosweu and Ngoepe (2018:65) who recognise that liquid communication generated through social media by the Botswana government should be properly managed, otherwise issues of trust, privacy and security of information may arise.

## **1.2 Background to the study**

The Government of Botswana developed an e-government strategy in 2011 which outlined interrelated projects that were meant to collectively move all appropriate government services online, significantly improve public sector service delivery and accelerate the uptake and usage of ICT across all segments of society (Mosweu 2012:7). This was preceded by the adoption and implementation of Vision 2016 in recognition that, in order to sustain and improve democracy, the governance process needed to be opened up more to external scrutiny because, in a democracy, citizens are the main stakeholders in the governance process and it was crucial that they be empowered to hold government accountable (Sebina 2006:25). By 2014,

government institutions were reported to be slowly becoming more represented and active on social media, as from the main executive institutions, 26 out of 34 member countries of the Organisation for Economic Co-operation and Development operated a Twitter account and 21 out of 34 maintained a Facebook page (Mickoleit 2014).

Records created through social media face the risks associated with using cloud computing which need to be addressed, such as privacy, security and compliance with records management requirements (Duranti & Rogers 2014; National Archives of Australia 2017). As governments continue to use social media to enhance visibility and disseminate information, there is a need to ensure that public information generated in the process is captured and preserved for accountability and trust in governments. Bertot, Jaeger and Hansen (2012) argue that as social media is becoming ubiquitous, both academics and practitioners need some initial and reliable background data about the deployment of this kind of technology at all levels. Lynn, Kilroy, Werff, Healy, Hunt, Venkatagiri and Morrison (2015) posit that while the topicality of big data and social media increases, there is a lack of conceptual tools in the literature to help researchers approach, structure and codify knowledge from social media big data in diverse subject matter domains, many of which are from non-technical disciplines. In Botswana, Batane (2013) contends that the government is committed to providing technology infrastructure to different departments and communities in the country so as to increase access to technology by different sectors of the population. Preliminary research by the author has indicated that, despite the fact that there is continued adoption and usage of social media by government agencies in Botswana, there seem to be no guidelines that follow records management principles in place to ensure effective governance of records generated in the process.

BNARS, as a government department under the Ministry of Youth Empowerment, Sport and Culture Development, is mandated to manage all public records created in government agencies. This includes the governance of liquid communication generated through the use of social media by the Botswana government, as DiBianca (2014) argues that data residing in social media platforms are subject to the same duty to preserve as other types of electronically stored information. This brings a challenge to BNARS, as Ngoepe and Keakopa (2011) state that BNARS did not have infrastructure to ingest digital records in their custody for permanent preservation. According to the National Archives and Records Services Act of 1978 (as amended in 2007) (NARS Act), a record

includes any electronic records, manuscript, newspaper, picture, painting, document, register, printed material, book, map, plan, drawing, photograph, negative and positive pictures, photocopy, microfilm, cinematograph film, video tape, magnetic tape, gramophone record or other transcription of language, picture or music, recorded by any means capable of reproduction and regardless of physical form and characteristics.

As this definition of a record in the legislation is not content specific, a record may be in any format, including those records generated through the use of social media. According to Ngoepe and Saurombe (2016:29), this wide coverage indicates that the legislation intended to cover as many forms of records as possible in as many types of media as possible. In legal terms, wide coverage is mostly encouraged so that other aspects may not be subjected to non-protection owing to their falling outside the ambit of the legislation. The advent of technology, especially the use of social media, is critical for the proper understanding of the preservation of records going into the future. The creation, use and preservation of liquid communication can be considered intrinsic to records management and thus needs to be managed accordingly (Mosweu & Ngoepe 2018:62).

Unlike in the traditional way of managing records, the governance of liquid communication generated through the use of social media like other records may need the development of distinct infrastructure and appropriate legislative framework to regulate its sustainable use and preservation (Duranti, Suderman & Todd 2008; Goh 2014). Where these issues are not taken into account, the use of social media to enhance access, promote wider dialogue and gather data has the potential to create archives and records management problems. This is particularly true for liquid communication, as it tends to be technically volatile and have legal and security complications. According to DiBianca (2014), regardless of the method employed, the preservation of social media evidence is critically important and the consequences of failing to preserve it can be significant. In fact, Fondren and McCune (2018:34) observe that in America, previous scholarship on the federal government's regulation, culture and institutional influence of social media has been limited with most of the academic literature in this field drawing from library scientists, ethicists, and information policy scholars. Thus, it is imperative to conduct this study utilising the ARMA's Generally Accepted Recordkeeping Principles, also known as 'the principles' as a lens to examine the governance of liquid communication generated through

the use of social media by Botswana government agencies with the view to proposing a framework. The constructs for the conceptual framework from the ARMA principles (see Table 1.1), which informed the objectives of this study, are accountability, integrity, protection, availability, retention and disposition (ARMA 2017).

This study is greatly influenced by the InterPARES Trust Project based the at University of British Columbia in Canada where the researcher served as a Graduate Research Assistant and a Researcher for the InterPARES Trust Project, Team Africa, particularly working on a research topic titled: Enterprise Digital Records Management in Botswana AF04 (November 2015 to December 2018). The InterPARES Trust aims to produce frameworks that will support the development of integrated and consistent local, national and international networks of policies, procedures, regulations, standards and legislation concerning digital records entrusted to the internet, to ensure public trust grounded on evidence of good governance, and a persistent digital memory (InterPARES Trust Project 2018). Of particular interest to this study is study no. NA05. The two research questions which formed the basis of this study were: “Can social media be used by local government to increase citizen trust?” and “If so, what can we learn about the relationship between the administration of social media and increase of trust in local government that can then be shared with public administrators using illustrative case studies and recommended guidelines to improve social media strategies and increase social capital?” The theoretical foundation for the overall study was adapted from archival and diplomatic theory related to trusted records and four other theories, which were behavioural trust theory, resource-based theory (RBT), social capital theory and social network theory (InterPARES Trust Project 2015). The major issues identified by NA05 were that trust in government is affected by a number of variables, relationships built through social media is merely one. Moreover, although global and country-specific data on levels of trust exist, it will be challenging to measure levels of trust in citizens for our type of survey (InterPARES Trust Project 2014)

### **1.2.1 Conceptual setting**

It is imperative to explain concepts used in this study as well as the roles played by the BGCIS and other stakeholders in the management of government information in Botswana. The

continued adoption and usage of social media by the Botswana government despite a seeming lack of evidence of guidelines and procedures for the governance of liquid communication generated through the use of social media, call for an information governance framework.

Gartner (2016) describes information governance as the specification of decision rights and an accountability framework to ensure appropriate behaviour in the valuation, creation, storage, use, archiving and deletion of information. It includes the processes, roles and policies, standards and metrics that ensure the effective and efficient use of information in enabling an organisation to achieve its goals. The Government of Estonia (2014:4) describes information governance as a complex, multi-component discipline which involves:

- the collection of information in various forms from different sources (data, paper and electronic documents, audio, video, etc.), its secure storage and timely destruction
- the processing and analysis of collected information
- the sharing of information with its consumers in a limited or unlimited form via a channel suitable for them (information systems, internal and external web, electronic mailbox, etc.).

According to Franks (2016:228), information governance comprises: records life-cycle management, information risks, policy management, information access and security, information capturing and classification as well as information content. This is also emphasised by Duranti and Rogers (2014:9) who argue that many of the concerns associated with trusting records and data in cloud computing environments relate specifically to records management and information governance and ensure not only collection, handling and processing of records and data in the online environment, but also retention, secure destruction and long-term preservation thereof. When advising about the information governance, Franks (2016:228) says that every organisation must consider its legal and regulatory environment along with its tolerance for risks when determining its governance framework.

This study presents a new concept in the field of archives and records management called 'liquid communication', which Zapata (2013) used in 2013. A few authors before him, such as Choi, Im and Yoo (2013) claim to have coined the word in 2013. These three authors also point out that 'liquid communication' is based on Bauman's (2000) 'liquid modernity' theory. According to Choi et al. (2013:3), the concept of liquidity was introduced about a decade ago

by Bauman (2000) to explain how our society has become busier and more fragmented. He used the word “solid” to symbolise postmodernity and to indicate “solid” concepts, such as traditional values, customary rights, civic obligations and individual family duties. Bauman (2000:2) states that “fluids ... liquids, unlike solids, cannot easily hold their shape. Fluids, so to speak, neither fix space nor bind time. While solids have clear spatial dimensions ... fluids do not keep to any shape for long and are constantly ready ... it is the flow of time that counts, more than the space they happen to occupy: that space, after all, they fill but 'for a moment'.”

The concept of liquidity challenges the traditional notion of long-term preservation in the field of archives and records management. Applying this concept may highlight possible solutions to challenges brought about by social media in terms of access and preservation of liquid communication. Thompson (2016:33) posits that strategies for preserving social media are largely adaptive, relying on established practices for analogous types of digital content. In his research, Zapata (2013) explores the digital strategy of the Catalan sports club FC Barcelona. Zapata (2013:ii) points out that the team’s digital strategy has created a communicative network that allowed for the establishment of a global community of fans and within this strategy, a new form of communication between organisations and a worldwide audience has developed, which the researcher refers to as “liquid communication”. It is in line with this notion that this study makes the assumption that liquid communication generated through the use of social media is unstable; there is an uncertain durability and its future availability is also uncertain, which calls for its governance.

### **1.2.2 Contextual setting**

As the aim of this study is to develop a framework for liquid communication governance generated through social media by the government of Botswana, it is imperative to discuss the background of the population of this study. This study was mainly conducted at the Botswana government office that manages government communication and information, which is the BGCIS office. The study also covered other Botswana government departments that are relevant stakeholders in the role of information management in the country, being the DIT, BNARS and the BOCRA to collect data to answer some of the research questions of this study. To put this study into context, the mandates and functions of these departments are explained below:

- **Botswana Government Communications and Information System** – This office is a division under the Office of the President which was established to ensure that the government communicates appropriate information at all times in a timely, authoritative, coherent, coordinated and proactive manner, while also promptly responding to its customers’ concerns, queries and criticism. To fulfil its mission, the BGCIS has been given a mandate to manage and coordinate government communication as virtual network, bringing together communication units in all line ministries (Ramsay 2009). The BGCIS was established by Presidential Directive Cab. 30/06 as a virtual network organisation, to be coordinated through a directorate within the Office of the President with the board’s roles outlined under a publication by the Office of the President (n.d) as follows:

  1. To ensure that the government is visible and accessible.
  2. To provide the public with accurate, timely, clear and relevant information about government policies, programmes, services and initiatives.
  3. To use a variety of new and traditional methods to communicate and to provide information in multiple formats that meet the needs of all citizens.
  4. To routinely identify and address communication needs and issues in the development, implementation and evaluation of government policies, programmes, services and initiatives.
  5. To deliver a prompt, courteous and responsive service that is sensitive to the needs of citizens.
  6. To foster an approach of cooperation and collaboration between and among government ministries and departments.
  
- **Botswana National Archives and Records Services** – The NARS Act of 1978, as amended in 2007, gives BNARS the mandate to provide records and information management services to government agencies, as well as to collect, preserve and make accessible the nation's documentary heritage (Government of Botswana 1978).
  
- **Botswana Communications Regulatory Authority** – This entity was established through the Communications Regulatory Authority Act, 2012 (CRA Act) on 1 April 2013 to regulate the communications sector in Botswana, comprising telecommunications, internet and ICTs, radio communications, broadcasting, postal services and related matters. The CRA Act replaced the Broadcasting Act [Cap 72:04], the Telecommunications Act [Cap

72:03], and caused the amendment of the Postal Services Act to create a converged or an integrated regulatory authority for the communications industry (Botswana Communications Regulatory Authority 2016).

- **Department of Information Technology** – This department, originally known as the “Government Computer Bureau”, was transferred from the Ministry of Finance and Development Planning to the then Ministry of Communications, Science and Technology in 2002 and is now a part of the Ministry of Transport and Communications. The department is a facilitator and administrator of information and communication technology services across the public sector. It also plays an advisory role on all ICT-related matters to government ministries and departments. Other major services provided by the department include website hosting for government, e-mail connectivity and internet access. In order to provide efficient ICT services, it has outsourced some of its functions and manages the third-party agreements, one of which is the maintenance of the micro-computers in government ministries and departments, which has an asset base of about 86,766 units (Government of Botswana 2011). Figure 1.1 illustrates the Botswana government’s organisational chart.

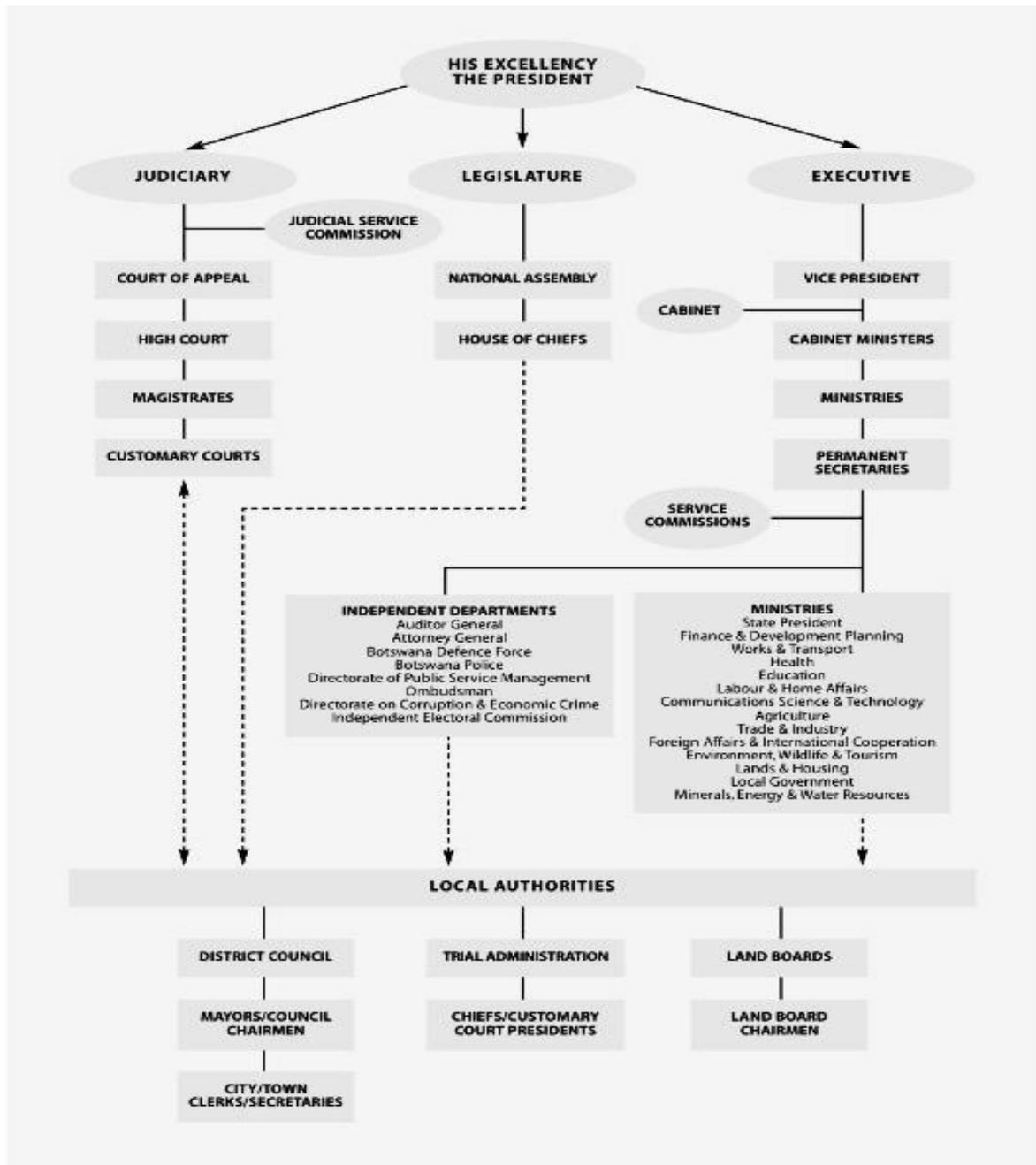
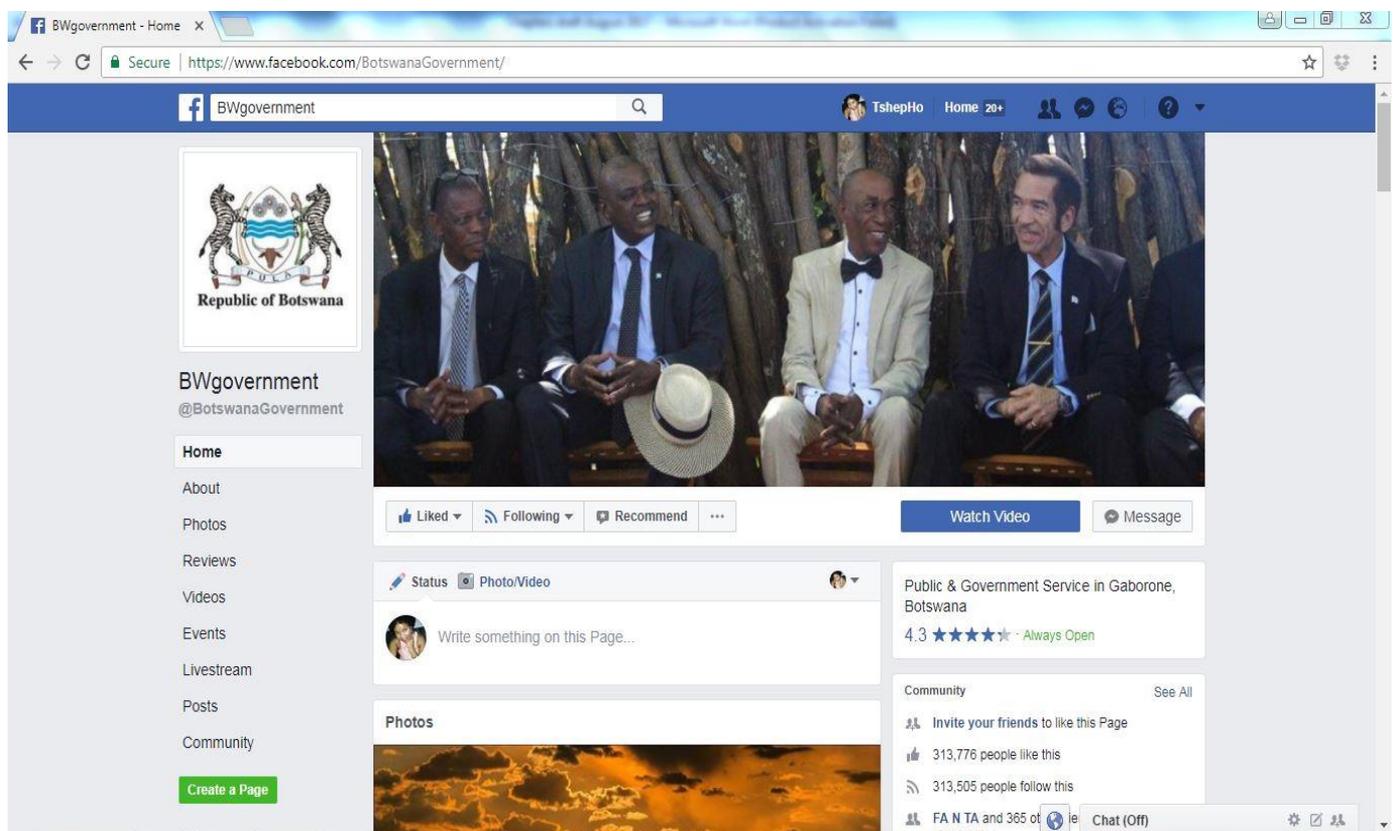


Figure 1.1: Botswana Organisational Chart (UNDP: 2009)

### 1.2.3 Usage of social media by the Government of Botswana

It has been revealed by Mosweu and Ngoepe (2018:65) that some government agencies in Botswana use social media as part of the delivery of public services. Masilo and Seabo (2015:124) also observe that the Botswana government’s Facebook page, titled “BWGOVERNMENT”, provides updates about government programmes and policies, as well as any information that the government needs to impart to the nation (see Figure 1.2). A report

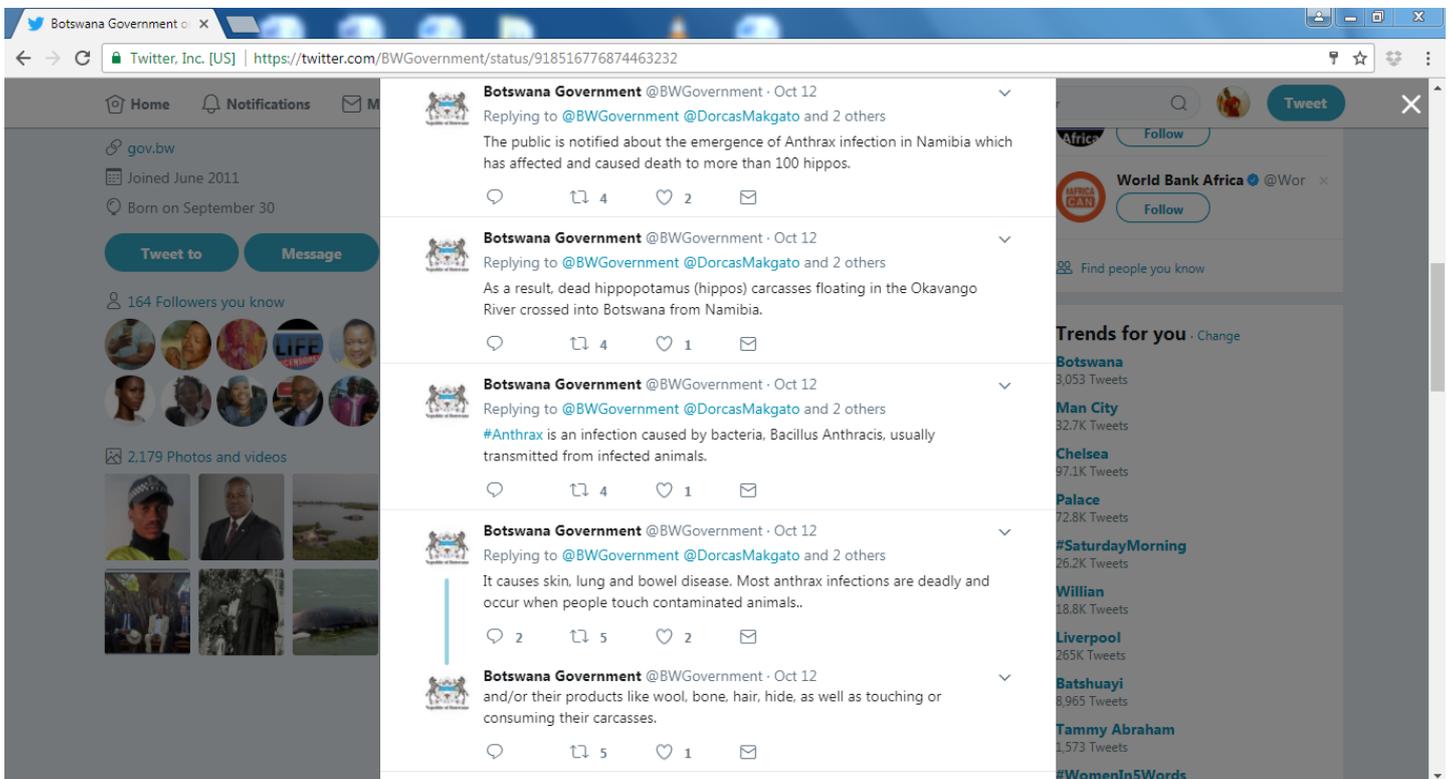
titled “State of Digital Diplomacy 2016 Year in Review”, released in March 2017 by Diplomacy Live, indicated that the Botswana government’s Facebook page “BWgovernment” was ranked number 5 in the world among 2016’s Top Ten Government Facebook pages. The rankings were based on the total number of interactions independently monitored by CrowdTangle analytics from 1 January 2016 to 31 December 2016. Facebook has been found to be useful in that it enables the sharing of pictures and information, status updates, posts and tags (Masilo & Seabo 2015:11). Figure 1.2, Figure 1.3, Figure 1.4 and Figure 1.5 indicate situations where the Botswana government used social media for customer service, access to information and direct community involvement needs.



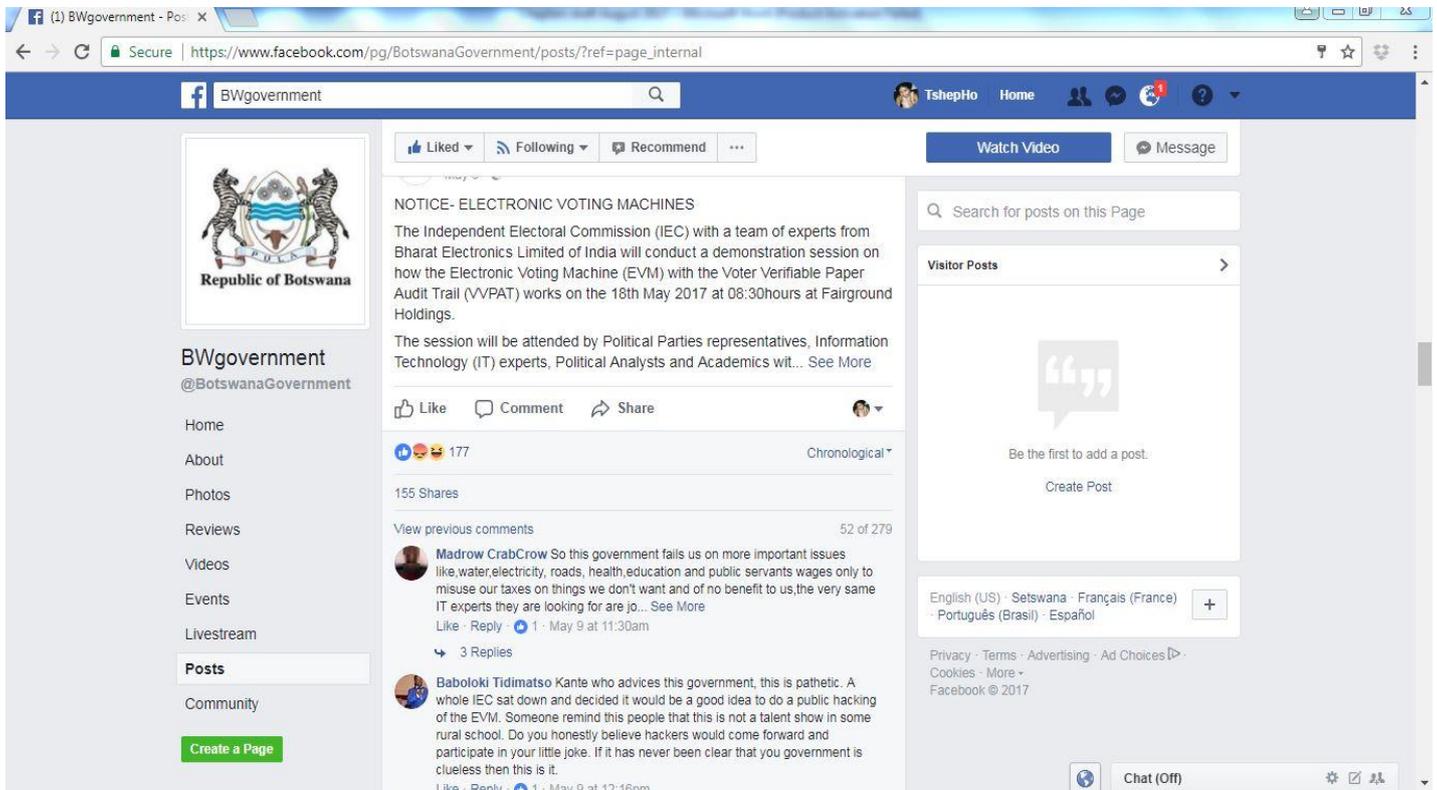
**Figure 1.2: Botswana government Facebook page (Botswana government Facebook page, October 2017)**



**Figure 1.3: Public notice by the Botswana government on Twitter. Source: Botswana Government Twitter account, October 2017**

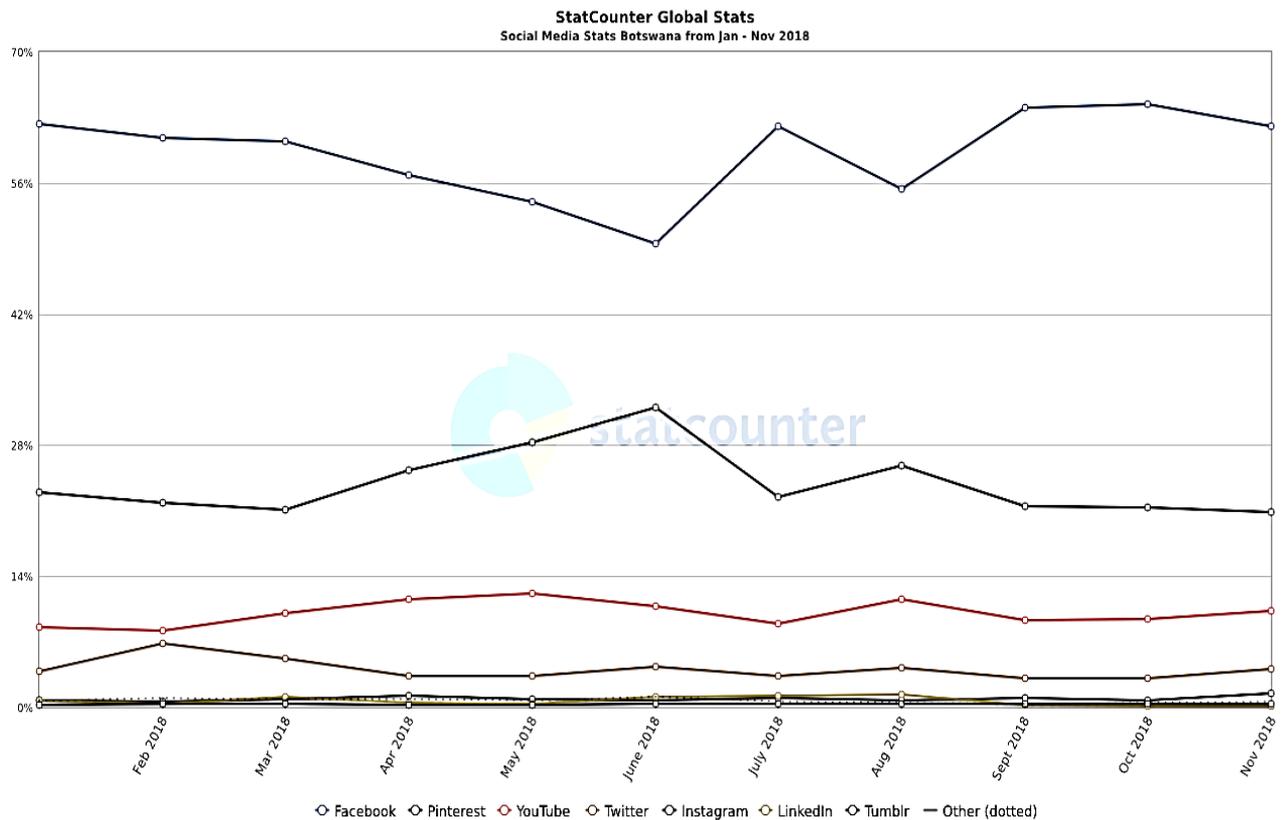


**Figure 1.4: Re-tweets and replies (Botswana government’s Twitter account, October 2017)**



**Figure 1.5: Notice to the public (Botswana government’s Twitter account, October 2017)**

The Botswana social media usage is also depicted by StatCounter Global Stats, which provides a web analytics service. For social media statistics, the company analyses every page view referred by a social media site then summarises all the data to obtain global statistical information (StatCounter Global Stats 2017). The Botswana social media market share of the different social media platforms for the period of January 2018 to November 2018, indicated that Facebook was most commonly used, followed by Pinterest, YouTube, Twitter, Instagram, LinkedIn, Tumblr and insignificant others (see Figure 1.6). This is collaborated by a study done by Tsholetso, Maunganidze and Faimau (2017) to establish the relationship between online social networking and academic performance of undergraduate students at the University of Botswana, which found that although students belonged to various online social networking sites, Facebook was identified as the most popular networking site among University of Botswana students. Figure 1.6 illustrates the market share of social media platforms in Botswana by StatCounter Stats.



**Figure 1.6 Social media statistics Botswana from January 2018 - November 2018 (StatCounter Global Stats: 2017)**

The increased usage of social media platforms has also affected traditional services in Botswana as reported by Selemela (2018); for example, the increased usage of social media platforms has negatively affected the traditional voice call services resulting in decreased turnover for public-owned Botswana Telecommunications Corporation Limited (BTCL). The corporation recorded an eight per cent decline in profits to R217 million while revenue declined by three per cent to R1,5 billion in 2018 (Selemela 2018). The BTCL Annual report of 2017 had recognised the need for the company to consider the use of the internet and social media channels to serve customers directly instead of relying on a call centre as one of their initiatives. The increased usage of social media platforms by Botswana citizens may be attributed to the wide availability of internet connections and mobile phone penetration. This is corroborated by Batane (2011:117) who highlights that the government of Botswana was committed to providing internet accessibility and connectivity in the country. As of March 2016, mobile phone access stood at 3.5 million subscribers, meaning that there were 3.5 million active mobile sim cards in use in Botswana, as well as 1.4 million mobile phone internet users in Botswana.

This placed the country in position five in sub-Saharan Africa behind Mauritius, Seychelles, South Africa and Cape Verde (Botswana Communications and Regulatory Authority 2018).

### **1.3 Research problem**

A study conducted by Josia, Themba and Matenge (2016) which reviewed the corporate governance development in Botswana found out that there was a high level of compliance with the traditional principles of corporate governance such as board composition and separation of powers between the board chairperson and the chief executive officer, but it was limited in terms of compliance with the contemporary governance principles, in particular the governance of information technology and information security. Preliminary research has indicated that despite the use of social media platforms by the Botswana government to communicate government decisions, liquid communications generated through these platforms are often not managed as no published literature was found by this study with regard to that. This seems not to be peculiar to Botswana as Mickoleit (2014) reported that despite the governments around the world actively using social media platforms, most of it was done in a “laissez faire” and experimentation basis without strategies in place. The government of Botswana has a Facebook page titled ‘BWGOVERNMENT’, which provides updates about government programmes and policies, as well as other information that the government needs to impart to the nation (Masilo & Seabo 2015:124). Information generated through social media can be shared, re-posted or tweeted beyond the control of the creating agency, which creates a challenge for governance and preservation. Duranti (2014b:7) points out that social media platforms facilitate the movement of material from one circle of people to another, crossing the public private lines. Communication that goes on between the government and the citizens as liquid communication raises questions on how to ensure governance of the resultant records in terms of managing and preserving it across its life cycle. Zapata (2013:48) argues that liquid communication is needed in the new globalised arena where the internet and social networks are employed frequently, because it is able to fully capture and analyse the bivalent flows of information, feedback and messages that are being deployed throughout the world into a single communicative channel. In that spirit, in recent years, the Botswana government made use of the advantage of social media to increase access to, and usage and awareness of, their services (Masilo & Seabo 2015; Statistics Botswana 2014; Vision 2016 Council). In the process, records are created and posted on social media, including public meetings notices, public service announcements, press releases, live speeches and requests for service.

Duranti (2015) argues that, despite the fact that internet providers offer on-demand online storage at a low cost, protecting data, records and archives at the highest level of security and maintaining them in formats compatible with any user's system, are neither transparent nor regulated in the cloud environment. The same source points out that those who create, manage, appraise, control and preserve these stored materials encounter problems related to ownership, provenance and jurisdiction, among others, as they remain responsible for such materials without control and are accountable without knowledge, as is the case with liquid communication. Bertot et al. (2012) also argue that interaction by the government through social media introduces new challenges related to privacy, security, data management, accessibility, social inclusion, governance and other information policy issues.

#### **1.4 Aims and objectives of the study**

The aim of this study was to examine the governance of liquid communication generated through the use of social media by the Botswana government with the view to developing a framework. The specific objectives of the study were to:

1. examine the legislative and policy framework in relation to the governance of liquid communication generated through the use of social media in the Botswana government.
2. assess the extent to which social media is used by the Botswana government.
3. examine measures put in place to maintain the integrity of liquid communication generated through the use of social media in the Botswana government.
4. investigate how liquid communication generated through social media in Botswana is retained and disposed of.
5. establish roles and responsibilities for the management of liquid communication generated through social media in Botswana.
6. propose a framework for liquid communication governance in the Botswana government.

#### **1.5 Justification and originality of the study**

Creswell (2012:68) points out that justification of a study explains the importance of the study and provides several reasons that explain why the issue under study is important. Justification of the importance of the problem of the study can be done by citing evidence from:

- other researchers and experts as reported in the literature.
- experiences others have had in the workplace.
- personal experiences (Creswell 2012:67-68).

Yin (2011:50-51) argues that the quest calls for defining and then conducting an original study where originality means that the study is that of the researcher's making, using own ideas, words and data, and where other people's work is used, it should be cited and authors credited for borrowed ideas and words. On the basis of this explanation, this study is original in its approach and setting and would collect data to develop a framework for liquid communication governance, which is currently very limited in the published literature. In the field of records management, digital records management studies have been done in Botswana over the years (Bwalya, Sebina & Zulu 2015; Kalusopa 2008; Mutula & Kalaote; Kalusopa & Zulu 2009; Keakopa 2002; 2006; 2009; Moloji 2009; Moloji & Mutula 2007; Mosweu 2012; Mutula & Van Brakel 2006; Nkwe 2010; Mosweu, Mutshewa & Bwalya 2014; Sebina & Zulu 2014). These studies covered electronic records management issues in general, and not governance of liquid communication generated through social media, which is the focus of this study. Nonetheless, it is important here to highlight the following related studies found by this study, done elsewhere around the world:

- Barker, JM. 2016. Data governance: the missing approach to improving data quality (Doctoral dissertation, University of Phoenix).
- Brooks, BA. 2015. Effects of organisation-level internet governance: A mixed-method case study approach to social media governance. (Master's thesis, Michigan State University).
- Chandler, KS. 2016. Exploring the principle of provenance with social network analysis (Master's thesis, University of British Columbia).
- Currie, L. 2013. The role of Canadian municipal open data: a multi-city evaluation (Doctoral dissertation, Queen's University).
- Elves, D. 2012. Advocating electronic records: archival and records management promotion of new approaches to long-term digital preservation (Master's thesis, University of Manitoba).

- Philpot, EL. 2013. Social media adoption and use among information technology professionals and implications for leadership (Doctoral dissertation, University of Phoenix).
- Ruijter, HJM. 2013. Proactive transparency and government communication in the USA and the Netherlands. (Doctoral dissertation, Virginia Commonwealth University).
- Smith, MS. 2015. A phenomenological study of critical success factors in implementing information governance (Doctoral dissertation, University of Phoenix).

Despite the fact that this study applies tools, techniques and theories from other studies, the results are relatively original as the outcomes were specific to the concept of liquid communication and the Botswana context. This study makes a contribution to the advancement of knowledge on the governance and preservation of liquid communication generated through social media. It is acknowledged by Duranti (2014a:2) that the knowledge to deal with the digital products of complex technologies is not commonly available among information professionals and is very expensive. It is also hoped that the study will stimulate further research on the preservation of liquid communication created through the use of social media in the public sector throughout the African continent. This study proposes a framework for liquid communication governance generated through social media. This framework will serve as guidance to organisations on the governance of liquid communication. New insights into the preservation of liquid communication generated by the Botswana government through social media can be developed through the employment of the research methodology of this study (see Figure 3.1).

## **1.6 Theoretical framework**

A theoretical framework is the basis for scholarly work such as a research project. Kemoni (2008) and Bergman (2011:99) argue that nothing can be studied empirically in the absence of theory. In view of the significance of a theoretical framework, this study used ARMA's Generally Accepted Recordkeeping Principles (ARMA 2017) as a lens to examine the governance of liquid communication generated through the use of social media by the Botswana government. The eight principles, which are accountability, transparency, integrity, protection, compliance, availability, retention and disposition, are all relevant to the

examination of governance of liquid communication records generated through the use of social media, as Smallwood (2014:29) argues that the principles apply to all types of organisations, in all types of industries, in both private and public sectors and can be used across all business units. The principles describe effective information governance and each of the principles is examined. Constructs from the principles inform some research objectives and the literature review. Table 1.1 indicates how the ARMA principles were applied in this study.

**Table 1.1 Application of selected theories/models in the current study**

<b>Objective</b>	<b>Theoretical or conceptual framework</b>	<b>Construct, concept or variable</b>
1. To examine the legislative, policy and transparency requirements in relation to the governance of liquid communication generated through the use of social media.	ARMA's Generally Accepted Recordkeeping Principles	Legislation and policy
2. To assess the extent to which social media is used by the Botswana government.	ARMA's Generally Accepted Recordkeeping Principles	Availability
3. To examine measures put in place to maintain the authenticity of liquid communication generated through the use of social media.	ARMA's Generally Accepted Recordkeeping Principles	Integrity, Protection
4. To investigate how liquid communication generated through social media in Botswana is retained and disposed of.	ARMA's Generally Accepted Recordkeeping Principles	Retention and disposition
5. To establish roles and responsibilities for the governance of liquid communication generated through social media in Botswana	ARMA's Generally Accepted Recordkeeping Principles	Accountability
6. To propose a framework for liquid communication governance in the Botswana government.	ARMA's Generally Accepted	Legislation and policy Availability, Integrity,

	Recordkeeping Principles	Retention and disposition Accountability
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## 1.6 Scope and delimitation of the study

In research, there is a need to delimit the scope of participation or research sites in a study as delimitations help to further define the parameters of the research study (Creswell 2014:70). This study is confined to the Botswana government office, which manages government information – the BGCIS office. Apart from that, major stakeholders involved in public sector information management, like the e-government office, the DIT and BNARS as the custodian of public records are included in the study. These are the main authority as it concerns information management in the country. Government ministries that do not have information management as their primary mandate are not covered by this study. Preliminary observations have demonstrated that even though some government ministries have social media platforms, they are rarely updated and would rely on the Botswana government to provide direction on any policy or guidelines they might want to implement, as there is an office dedicated to that function. Equally beyond the scope of this study was the private sector in Botswana.

## 1.7 Definitions of key terms

The key terms and concepts are identified and explained in this section to provide the context in which they will be used in the study (Ngoepe 2012:28). For this study, the following terms are defined: liquid communication, social media, social network, information governance, records and records management.

### 1.7.1 Liquid communication

Liquid communication is the type of communication that can easily go back and forth between the participants involved. It is communication that is neither restricted by time or space, nor dictated by any type of social status (Zapata 2013:ii). For the purpose of this study, liquid communication refers to communication generated through an interaction between government

and citizens on social media for customer service, access to information and direct community involvement needs (Duranti 2014b).

### **1.7.2 Social media**

This is an environment in which content is created, consumed, promoted, distributed, discovered or shared for purposes that are primarily related to communities and social activities, rather than functional, task-oriented objectives. 'Media' in this context is an environment characterised by storage and transmission, while 'social' describes the distinct way in which these messages propagate in a one-to-many or many-to-many fashion (Gartner IT Glossary 2016). It has also been defined as a group of internet-based applications that builds on the ideological and technological foundations of Web 2.0 and that allows the creation and exchange of user-generated content (Kaplan & Haenlein 2010).

### **1.7.3 Social network**

This refers to the act of establishing online many-to-many human connections for purposes of sharing information with a network or subsets thereof. Although one-to-one connections are possible on a social network site, the preponderance of activity engages a broader range of participants in any given network (Gartner IT Glossary 2016).

### **1.7.4 Information governance**

Governance is a system or process whereby operations of an organisation are directed or controlled (Ngoepe 2012:30). Information governance entails specifications of decision rights and accountability framework to ensure appropriate behaviour in the valuation, creation, storage, use, archiving and deletion of information. It includes processes, roles and policies, standards and metrics that ensure the effective and efficient use of information in enabling an organisation to achieve its goals (Gartner 2016).

### **1.7.5 Record**

This study acknowledges the different definitions of a record in professional literature. A record is documentary evidence, regardless of form or medium, created, received, maintained

and used by an organisation (public or private) or an individual in pursuance of legal obligations or in the transaction of business (International Records Management Trust (IRMT) 2009). It is a document made or received and set aside in the course of a practical activity (InterPARES 2001). According to ISO 15489 (2016:4), a record, regardless of form or structure, should possess the characteristics of authenticity, reliability, integrity and usability to be considered authoritative evidence of business events or transactions and to fully meet the requirements of the business.

On another hand, a record has been defined by ARMA International as any recorded information, regardless of medium or characteristics, made or received by an organisation that is evidence of its operations and has value requiring its retention for a specific period of time (ARMA 2018). According to proponents of the records continuum theories, a record status does not have to be determined by crossing the threshold of records keeping systems, as even ephemeral records and informal communications have evidential characteristics that qualify them as records (Yeo 2015). Even for legal purposes, as stated by (Yeo 2015), due to the fact that the selection decisions are imperfect, all records can be subject to discovery or disclosure (including drafts, casual messages, and records that survive by coincidence). The explanations by ARMA (2018) and Yeo (2015) incorporate liquid communication generated through the use of social media.

### **1.7.6 Records management**

Records management involves a field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposal of records. Records management includes processes for capturing and maintaining records as evidence of and information about business activities and transactions (IRMT 2009). However, the government of Estonia (2014:2) in their Information Governance Strategy acknowledges that records management is primarily associated with records in the form of paper or computer files and their management in the so-called records management system, whereas, nowadays, records are created, processed and managed also in other information systems and environments, where such records differ significantly from traditional records.

## **1.8 Research methodology**

A research methodology, according to Creswell (2014:45), is one of the major elements in the research framework that involves the forms of data collection, analysis and interpretation that researchers propose for their studies. The scientific method as applied to social sciences may include quantitative, qualitative and mixed method research approaches (Creswell 2014:32; Bhattacharjee 2012:22; Greener 2008:36) (see Table 3.2). This study uses the qualitative approach to address the research questions of ascertaining the governance of liquid communication generated through the use of social media by the Botswana government. A case study research design was adopted as it allows for an in-depth investigation of the problem at hand as represented by a single unit. As a case study was used for the research, more than one way of deriving data about the unit under study were used as data were collected through interviews, documents and content analysis (Greener 2008:81). The qualitative data were coded and analysed through thematic analysis. The themes for analysis were generated as per the constructs of the research framework for this study (Creswell 2014:249). The population of this study was purposively selected at four Botswana government offices, being the BGCIS (which is concerned with the use of social media in Botswana) and relevant stakeholders, which are the DIT, BNARS and the Botswana Communication and Regulatory Authority (BOCRA), as this is where the researcher believed to find relevant information to inform this study (See Table 4.2). The research methodology employed in this study is fully presented in chapter three.

## **1.9 Research outline**

The report of this thesis is presented in six chapters as outlined below:

- **Chapter One: Introduction and background to the study**  
This chapter provides the background of this study. The theoretical framework, problem statement, purpose of the study, research objectives, research questions, significance of the study, originality of the study, scope and limitations, ethical considerations, discussion of key terms, research methodology, thesis outline as well as a summary of the chapter. The organisation of the dissertation, rounds off the chapter.
- **Chapter Two: Literature review**  
This chapter presents a literature review on liquid communication, the governance of liquid communication, the legislative, policy and transparency framework for the management of liquid communication generated through social media, social media

usage, social media and trust in government, integrity and protection of security of social media records, retention and disposition of liquid communication as well as liquid communicate model.

- Chapter Three: Research methodology

The chapter describes in detail the research methodology adopted in this study, including research paradigm, research approach, research design, location and population of the study, data collection methods and procedures, data analysis as well as ethical clearance.

- Chapter Four: Presentation of results

The results of the study are presented under this chapter according to themes adopted from the research framework used in this study as follows:

1. The legislative and policy framework in relation to the governance of liquid communication generated through the use of social media by the Botswana government.
2. The extent of usage of social media by the Botswana government.
3. The integrity of liquid communication generated through the use of social media by the Botswana government.
4. Disposition of liquid communication generated through social media in Botswana.
5. Roles and responsibilities for the management of liquid communication generated through social media in Botswana.
6. Propose a framework for liquid communication governance in the Botswana government.

- Chapter Five: Discussion of the findings of the study

The researcher discusses the findings of this study under this chapter.

- Chapter Six: Summary, conclusions and recommendations

This chapter summarises each chapter and the results. It also draws conclusions from the findings of the research and the presentation of recommendations drawn from this study.

## **1.10 Summary**

This chapter presents the background to the study, the conceptual and contextual setting, research problem, aims, objectives and research questions of the study, justification and originality of the study, theoretical framework, scope and delimitation of the study as well as definitions of key terms. The next chapter discusses the literature review as guided by the objectives of the study.

## **CHAPTER TWO**

### **LITERATURE REVIEW ON THE GOVERNANCE OF LIQUID COMMUNICATION**

#### **2.1 Introduction**

The previous chapter introduced the study by providing the background to the study, conceptual and contextual setting, research problem, aims, objectives and research questions of the study, justification and originality of the study, theoretical framework, scope and delimitation of the study as well as definitions of key terms. This chapter provides a literature review of the governance of liquid communication generated through the use of social media by the Botswana government. According to Bhattacharjee (2012:21), the purpose of a literature review is three-fold, that is; to survey the current state of knowledge in the area of inquiry, to identify key authors, articles, theories and findings in that area, and to identify gaps in knowledge in that research area. Yin (2011:64) summarises the role of literature review in research, grouping the different types as follows:

- An initial foray to build a study bank of previously completed studies to help the researcher consider the topic, method and source of evidence for a new study.
- A selective review, coming after you have tentatively decided what to study. The selective review deliberately targets other studies that appear to cover similar ground and help you to define your new study in a more distinctive manner, establishing a niche for the new study.
- A comprehensive review, conducted out of the desire to summarise what is known on a given topic although it is not necessarily relevant in helping to start any particular new study.

In view of the importance of literature review, the literature review in this study examines sources relevant to information governance, liquid communication and the use of social media in Botswana. The literature review is divided into a number of sections starting with a discussion of the concept of liquid communication and other concepts emanating from the objectives of the study. Here the extent of the use of social media in Botswana, the legislative and policy framework, retention and disposition of liquid communication, trust and security in

social media, accountability in information governance, as well as framework adopted in the study are discussed.

## **2.2 Theoretical framework**

Given the importance of a theoretical framework as espoused by different scholars because it is a lens or frame of the study (Creswell 2012; Ngulube, Mathipa & Gumbo 2015; Bhattacharjee 2012; Kumar 2011), this section provides a discussion of the theoretical framework that underpinned this study. There are many governance frameworks developed around the globe to guide the implementation of records management, among others, to be used as best governance practices (Ngoepe 2012:19). This argument is further explained by Asaduzzaman and Virtanen (2016:7) who state that the academic literature on governance is very diverse and incoherent and, as a result, its theoretical roots are varied, such as institutional economics, international relations, organisational studies, development studies, political science, public administration and Foucauldian-inspired theorists. While Kemoni (2008) acknowledges the various records management models that have been developed by national archival institutions, archives scholars, international professional records and archives management scholars, the author quotes Tough and Moss (2006) who allude that the records life cycle and the records keeping continuum models have dominated the discourse. In records management, the literature revealed one study in Africa by Chaterera (2013) that used the ARMA Generally Accepted Recordkeeping Principles as one of the theories, principles, models and guidelines that informed her study which investigated the role of records surveys in the management of public records in Zimbabwe. Haggmann (2013:229) highlights that there have been debates by experts from the records and information management and information technology communities on whether the concept of a record and records management as a discipline is still fit for purpose in this era of digital information or whether all the requirements under the classic view of information life cycle management should be reconsidered in a more holistic way, in conjunction with all the dependencies from related disciplines in the larger field of Enterprise Information Management (EIM). In trying to answer these questions, the same author suggests that to correctly apply the notion of recorded information according to ISO-15489, there is need to take into consideration the blurring terms of ‘document’, ‘record’, ‘context’ and ‘content’ and agree on information management as the overarching and generally accepted notion. The basic principles of records management remain valid but are extended, as

introduced and outlined in the ARMA Generally Accepted Recordkeeping Principles (Hagmann 2013:229).

For this study, the theoretical framework is based on the ARMA Generally Accepted Recordkeeping Principles (ARMA 2017) (See Table 1.1). Hagmann (2013:232) contends that these eight principles (accountability, transparency, integrity, protection, compliance, availability, retention and disposition) take account of the foundations of relevant records and information management standards such as the Records Management ISO 15489 standard as well as best practice and legal and regulatory requirements. According to ARMA (2017), the principles constitute a generally accepted global standard that identifies the critical hallmarks and a high-level framework of good practices for information governance. Published by ARMA International in 2009 and updated in 2017, the principles are grounded in practical experience and based on extensive consideration and analysis of legal doctrine and information theory. They are meant to provide organisations with a standard of conduct for governing information and guidelines by which to judge that conduct. The ARMA Generally Accepted Record Keeping Principles are outlined as follows:

- **Accountability:** A senior executive (or a person of comparable authority) shall oversee the information governance programme and delegate responsibility for information management to appropriate individuals.
- **Transparency:** An organisation's business processes and activities, including its information governance programme, shall be documented in an open and verifiable manner, and that documentation shall be available to all personnel and appropriate, interested parties.
- **Integrity:** An information governance programme shall be constructed so the information assets generated by or managed for the organisation have a reasonable guarantee of authenticity and reliability.
- **Protection:** An information governance programme shall be constructed to ensure an appropriate level of protection to information assets that are private, confidential, privileged, secret, classified, essential to business continuity or that otherwise require protection.
- **Compliance:** An information governance programme shall be constructed to comply with applicable laws, other binding authorities and the organisation's policies.

- Availability: An organisation shall maintain its information assets in a manner that ensures their timely, efficient and accurate retrieval.
- Retention: An organisation shall maintain its information assets for an appropriate time, taking into account its legal, regulatory, fiscal, operational and historical requirements.
- Disposition: An organisation shall provide a secure and appropriate disposition for information assets no longer required to be maintained, in compliance with applicable laws and the organisation's policies.

## **2.4 Legislative policy and transparency framework**

One of the objectives of this study was to examine the legislative and policy framework in relation to the governance of liquid communication generated through the use of social media in Botswana. This objective is in line with the ARMA principle of compliance which states that an information governance programme shall be constructed to comply with applicable laws and other binding authorities, as well as with the organisation's policies (ARMA 2017). The adoption and use of social media in Botswana may come with challenges of managing liquid communication, especially where the legislation is weak. It has been argued by Jansen and Duranti (2013:63) that issues of ownership, jurisdiction and privacy regarding internet-based records need to be resolved since technology will not stand still to wait for legal and regulatory systems to catch up. Placing emphasis on the need for an up-to-date policy framework in this age and era, Ramsay (2009) posits that it is ideal that communication should become an integral part of policy development through which communication plans can be formulated across the cycle of policy development, delivery and refinement. There exists a need for a shared regulatory and procedural framework that promotes consistency and balance in terms of policies and practices regarding the handling of digital objects (Jansen & Duranti 2013:63).

In Botswana, there was a case in which a person was charged for distributing obscene material on Facebook and the Botswana Police Divisional Prosecutions Unit produced printed materials from his account as evidence before the court (Serite 2015). As a result, the governance of liquid communication generated through the use of social media may need the development of distinct infrastructure and appropriate legislative framework to regulate its sustainable use and preservation. Failure to take these issues into consideration leads to the use of social media for citizen engagements having the potential to create archives and records management problems

as well as legislative requirements challenges. Hence, this study proposes a governance framework for liquid communication generated through the use of social media recognising the need for a stringent legal and policy framework (See Figure 6.1). Murphy and Fontecilla (2013:22) posit that the challenges surrounding social media evidence demand that one considers admissibility when social media is preserved, collected, and produced as it is important for counsels to memorialise each step of the collection and production process, in addition to considering how they will authenticate a tweet, Facebook posting, or photograph.

An analysis was done by the Botswana legal framework of a study done by Kalusopa, Mosweu and Bayane (2017:2) during their study under the InterPARES Trust project on the implementation of enterprise-wide systems to manage trustworthy digital records in Botswana's public sector. This analysis revealed that Botswana lagged behind in the promulgation of legislation that guided the implementation of enterprise-wide systems in the Botswana public sector with regard to the issue of trustworthiness. Although the legislation recognising electronic records as evidence in e-commerce transactions was reported to be in place, the need to amend existing legislation such as the NARS Act and the Cybercrime and Computer Related Crimes Act to accommodate the management of electronic records in the country was acknowledged by this study. This study also revealed that data protection and freedom of information legislation did not exist in the country. This study recognises the following non-exhaustive list of laws that exist and may apply to the governance of liquid communication in Botswana:

- National Archives and Records Services Act: Makes provision for the preservation, custody, control and disposal of public archives, including public records of Botswana, and for matters incidental thereto or connected therewith.
- Cybercrime and Computer Related Crimes Act, No. 22 of 2007: An act to combat cybercrime and computer-related crimes to repress criminal activities perpetrated through computer systems and to facilitate the collection of electronic evidence.
- Electronic Records (Evidence) Act, No. 13 of 2014: Provides for the admissibility of electronic records as evidence in legal proceedings and authentication of electronic records.
- Electronic Communications and Transaction Act, No. 14 of 2014: An act to provide for the admissibility of electronic records as evidence in legal proceedings and

authentication of electronic records to provide for the admissibility of electronic records as original records.

- Criminal Procedure and Evidence Act, No. 14 of 2005: Makes provision with respect to procedure and evidence in criminal cases, and provides for other matters incidental to such procedure and evidence.

An analysis of these laws by the author revealed that there is also a need to amend existing laws such as the NARS Act of 1978 and the Cybercrime and Computer Related Crimes Act of 2007 (Government of Botswana 1978:2007) to accommodate records generated through social media. DiBianca (2014) argues that data residing in social media platforms are subject to the same duty to preserve as other types of electronically stored information. The World Economic Forum (2012:325) report indicates that laws relating to the use of information and communication technologies (e.g. electronic commerce, digital signatures, consumer protection) in Botswana, on a scale from 1-7, where 1 was non-existent and 7 was well developed, Botswana was rated 3.2 as per the 2010-11 weighted average. This situation has not changed much as of March 2018 as the data protection and freedom of information legislation has not yet been enacted. The legislation recognising electronic records as evidence in e-commerce transactions is in place in the form of the Electronic Communications and Transactions Act of 2014, which gives electronic signatures the legal equivalence of the handwritten signatures and is meant to promote a technology-neutral legal framework for the creation of e-signatures. It also gives legal recognition to certificates created or issued locally or externally (Government of Botswana 2014a). In addition, the Electronic Records (Evidence) Act of 2014 has also been enacted and provides for the admissibility of electronic records as evidence in legal proceedings and authentication of electronic records, similar to original paper records (Government of Botswana 2014b).

As BNARS is mandated by the NARS Act (Government of Botswana 1978) to manage all records created in government agencies, regardless of these records' format, it should also ensure good governance of liquid communication (digital records) generated through the use of social media. Mosweu and Ngoepe (2018:53) posit that the Botswana government should design a governance framework to guide ministries in the governance of liquid communication, as failure to regulate this environment would result in grave challenges for the country such as loss of memory. A study by Ngoepe and Keakopa (2011) found that BNARS did not have infrastructure to ingest digital records in their custody for permanent preservation. The NARS

Act 1978, as amended in 2007, is not content specific and therefore needs to be further amended to include records created from networked environments, like those created through the use of social media. According to Ngoepe and Saurombe (2016:29), this wide coverage indicates that the legislation intended to cover as many forms of records as possible in as many types of media as possible. In legal terms, wide coverage is mostly encouraged so that other aspects may not be subjected to non-protection because they fall outside the ambit of the legislation. It has been argued by Keetshabe (2015) that the government of the Botswana had recognised the gaps that exist in the Botswana legislative framework and that the gaps were being addressed through the development of simple, consistent and technology-neutral legislation which recognises all ICT processes and transactions.

There seems to be a lack of coordinated efforts to make social media records around the world (Franks 2010; Goh, Duranti & Chu 2012; InterPARES 2016; Evans, Franks & Chen 2018). A study done by InterPARES (2016:76) in America and Canada indicated that while participants of the research generally acknowledged that communication social media was records, little effort was made to manage social media content. Goh et al (2012:2) report that in order to deal with some of the challenges that come with digital records management, some countries such as Australia have updated their legislation related to privacy, data protection and intellectual property. The literature indicates that most countries have not been proactive to amend relevant legislation to accommodate the governance of social media records, but rather have policies and guidelines in place for the management of digital and social media records (Parer 2002:2; Jaeger, Bertot & Shilton 2012:11; Goh et al 2012). Although Goh et al (2012:2) acknowledge that several national archives, including Australia and the United States, have issued policies and guidelines on the outsourcing of digital data and how to manage records in a cloud computing environment, they are sceptical where these policies and guidelines are not supported by strong archival legislation, as legislation is the highest form of public policy. Most countries with social media policies for government are found in the developed world, such as the United States where the National Archives and Records Administration has NARA Bulletins on Guidance on Managing Records in Web 2.0/Social Media Platforms (2016), the New South Wales archives have Government Social Media Policy and Guidelines (2016) and, at a lower level, in Africa the Nigerian government, through the National Information Technology Development Agency (NITDA), has the Draft Framework and Guidelines for the Use of Social Media Platforms in Government Establishments (2017).

## **2.5 Social media usage by government**

The second objective of this study was to assess the extent to which social media was used by the Botswana government. This objective was informed by the ARMA principle of availability, which requires that where there is information governance, an organisation should maintain its information assets in a manner that ensures their timely, efficient and accurate retrieval (ARMA 2017). Social media is an online environment where content is created, consumed, promoted, distributed, discovered or shared for purposes that are primarily related to communities and social activities rather than to functional, task-oriented objectives whereby the media represents an environment characterised by storage and transmission, while “social” describes the distinct way in which these messages propagate in a one-to-many or many-to-many fashion (Gartner 2018). Although Edosomwan, Prakasan, Kouame, Watson & Seymour (2011:2) allude to the fact that there are many ideas about the first occurrence of social media, Evans et al (2018:21) posit that the genesis of social media platforms can be traced back to the 1970s and the early days of the internet, when computer scientists dialling into central systems found ways to communicate, share files and post messages through bulletin board systems, CompuServe and America Online discussion forums. The year 2000 witnessed a boost with many social networking sites springing up and transforming the interaction of individuals and organisations who share common interests (Edosomwan et al 2011:2). According to Brett (2009), social media rose to popularity and became widely known and acceptable throughout the globe with the advent of Facebook in 2004. The National Archives and Records Administration (2013:3) observed an increased number of federal agencies in the United States using social media platforms to engage with their employees and the public, resulting in the creation of federal records which must be captured and managed in compliance with federal records management laws, regulations and policies. What is unfortunate about social media technologies is that its rapid development makes it difficult for them to keep up with the constantly evolving threats deployed against them, which raises the risks associated with an organisation’s participation in such technologies (United States Government Accountability Office 2011:10).

Social media posts created or received by a public officer in the course of their duties are evidence of government business as they document the actions taken by public officers and should be retained for reasons of accountability and transparency (Public Records Office

Victoria 2019). The ARMA (2017) principle of availability requires that to ensure information governance, an organisation shall maintain its information assets in a manner that ensures their timely, efficient and accurate retrieval. Franks and Smallwood (2014:32) acknowledge that a major challenge for organisations is ensuring timely and reliable access to and use of information and that records are accessible and useable for the entire length of the retention period. This situation calls for the capturing and preservation of liquid communication as indicated in the proposed framework for governance of liquid communication generated through the use of social media by this study. In the digital environment, the definition of a record, as defined by archival theory, has been broadened to include documents, data and digital objects of all types (Rogers 2009:2). Records management has been described as a field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records (ISO 15489-1 2016). The same source further explains that a record, regardless of form or structure, should possess the characteristics of authenticity, reliability, integrity and usability to be considered authoritative evidence of business events or transactions and to fully meet the requirements of the business.

Franks (2010:15) argues that the issuance of a memorandum by the United States President, President Obama, in 2009 which instructed executive departments and agencies to use “innovative tools, methods, and systems to cooperate among themselves, across all levels of Government, and with non-profit organisations, businesses, and individuals in the private sector” prompted major federal agencies to adopt the use of social media platforms such as Facebook, Twitter and YouTube, even though it became apparent that records management considerations were not included in many of the initial projects. The question that may arise then is “What is a social media record?” Franks and Smallwood (2014:253) explain that any content that meets the organisation’s definition of a record must be retained in accordance with the organisation’s records retention and disposition policy. Iron Mountain (2012:1) observes that many organisations take a sweeping approach when it comes to records management whereby, instead of determining whether social media communication has value, they simply save everything or nothing at all.

The NARA Bulletin of 2014, *Guidance on managing social media records*, provides guidance to agencies to determine the record status of social media content through the following no exhaustive questions:

- Does it contain evidence of an agency's policies, business or mission?
- Is the information only available on the social media site?
- Does the agency use the tool to convey official agency information?
- Is there a business need for the information? (NARA 2014:2).

NARA (2013) advises that if the answers to any of the above questions are in the affirmative, the content is likely to be a state record in the United States. Moreover, social media content may be a state record when the use of social media provides added functionality, such as enhanced searchability, opportunities for public comment or other collaboration. In addition, a complete federal record must have content, context and structure along with associated metadata (e.g. author, date of creation). The complete record must be maintained to ensure reliability and authenticity. According to Franks and Smallwood (2014:253), in many cases, social media content is not managed to ensure the preservation of business records. Organisations may use digital diplomacy, based on a foundation of traditional diplomatic principles, to help them identify digital records through their metadata and determine what metadata need to be captured, managed and preserved (Rogers 2015:6). As rightly stated by Yeo (2016) capturing records within a formal records management system assists in securing them against loss, damage, alteration, or premature destruction, besides supporting their continuing accessibility.

Evans et al (2018) observe that in archives, initial research around social media platforms focused on archives' and archivists' use of social media and indicated that social media was primarily dedicated to promoting archival holdings. The authors caution that although social media platforms allowed individuals, communities and institutions new opportunities to document their activities, these proprietary platforms also controlled features such as access and use whereby the data created using the platform could not easily be exported to the archives' technical environment. A study done by Evans et al (2018:22-23) of 20 local governments in Canada and the USA to find out how they operationalised the government-citizen trust relationship through the administration of social media, found that out of those 20 departments, only two cities had dedicated procedures in place for managing social media as

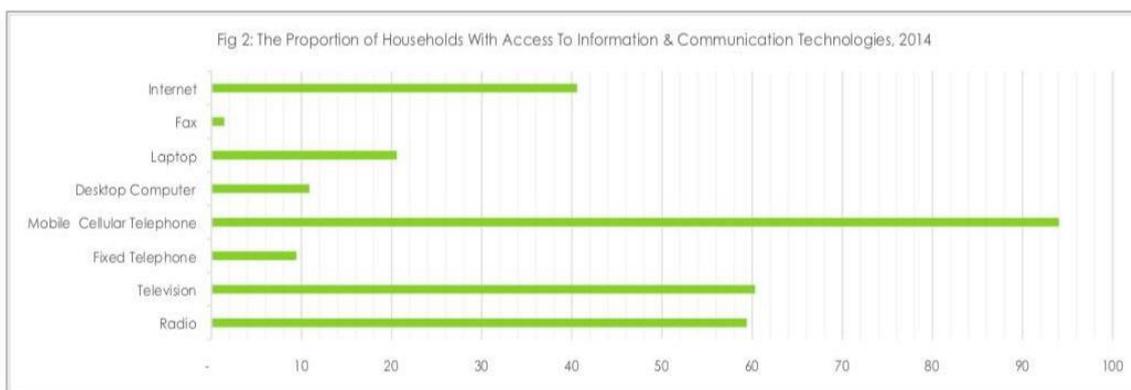
records while, for the rest, social media results were measured sporadically on an ad hoc basis for operational purposes. According to Evans et al (2018:23), standards of practice for managing social media as records have been published, as exemplified by a report on federal agencies from the IBM Centre for Government in 2010 and a white paper from the National Archives and Records Administration (NARA, 2013), extended by other publications relating to open data, with researchers proposing requirements, examining practice and identifying new opportunities. Although the literature indicates a wide acceptance and use of social media platforms by governments around the world, *The Conversation* (2017) reports that African governments such as Cameroon, Chad, the Democratic Republic of Congo, Gabon, Gambia, the Republic of Congo and Uganda are increasingly blocking access to social media during elections and other politically sensitive periods; whereas others like Ethiopia, Madagascar and Tanzania, have introduced cybercrime legislation that threatens freedom of expression with the pretence of preserving peace and security, because social media offers a potential platform for the dissemination of hate speech and incitement to violence.

The BGCIS coordinator, Ramsay (2009), points out that the advent of online communications has resulted in an enormous increase in the demand for public information, while instant networking leaves little room for institutions to respond in an ad hoc manner. In recent years, the government of Botswana, as reported by the Vision 2016 Council (2015:38), has introduced a number of opportunities and occasions to communicate with the public through a diverse set of vehicles, including electronic outreach such as websites and social media, among others, across government. The extent of usage of social media by the Botswana government is demonstrated through Figure 1.3, Figure 1.4 and Figure 1.5 as well as Figure 4.2, Figure 4.3, Figure 4.4 and Figure 5.2 in this study. When examining the use of social media in Botswana's 2014 general election campaign, Masilo and Seabo (2015:118) observed an unprecedented use of social media as a campaign tool by the three main political parties and their candidates, as they all had a presence in social media. The increased use of social media, particularly Facebook, as a mobilising tool for the Botswana 2014 general election increased young people's interest in politics. Moreover, candidates did not have to rely on traditional media to communicate with the electorate; their messages could be delivered undiluted and in real time (Masilo & Seabo 2015:118).

Despite the assertion by the IRMT (2002) that the use of ICT in Africa is faced with many problems such as the digital divide, inadequate IT infrastructure and skills shortage of

professional and technical staff, Batane (2013:117) argues that the government of Botswana is committed to increase access to technology by different sectors of the population. Masilo and Seabo (2014:116) also acknowledge that while it may be true that the effectiveness of social media could be compromised by the digital divide, the increasing sophistication of mobile phones has greatly improved many people's access to the internet and therefore to social media. A survey done by Statistics Botswana (2014) on household access to ICTs and individual use of ICTs for the period 2014 in Botswana revealed that more than 90% of households had access to ICT through mobile cellular telephones as depicted by the Figure 2.1

#### HOUSEHOLD ACCESS TO INFORMATION & COMMUNICATION TECHNOLOGIES



**Figure 2.1: Household access to ICTs (Statistics Botswana: 2014)**

According to a *Sunday Standard* reporter (2016), Botswana's participation rates in social media are high as a direct result of the government's ICT policy through which it attempts to give more people access to the internet. A study done by Batane (2013) on internet access and use among young people in Botswana has revealed that entertainment and communication comprise about 75% of young people's internet time. This means most of the communications by the Botswana government reach many young people in Botswana. Information by World of Statistics indicates that the most used social network in Botswana is Facebook with a usage of about 92.88%. Pinterest ranks second with 3.05%, Twitter ranks third with 3.02%, Google+ ranks fourth with 0.37% and the remaining social networks hold 0.68% of mobile internet usage (World of Statistics 2015). Internet accessibility in Botswana has allowed hundreds of thousands of Botswana citizens to use Facebook, according to Nielsen company, quoted by *Sunday Standard* newspaper (2016). Botswana's participation rates on Facebook placed the country far ahead of all sub-Saharan countries (Sunday Standard 2016). The Facebook profile was derived from three variables: awareness, penetration and usage. In terms of awareness,

Botswana ties with Namibia, with both countries having a slight edge over their neighbour, South Africa. In terms of penetration, Botswana beats both its neighbours by far, with South Africa coming in a distant second. In terms of usage, Botswana once more ties with Namibia (Sunday Standard 2016).

### **2.5.1 Social media and trust in government**

In recent years, researchers have recognised the relatively unexplored area of study related to the use of social media by the government and its correlation to citizen trust (Franks & Driskill 2014). With records generated through social media, as observed by Duranti (2014), the nature of trust relationships is filled with risks, weaknesses and fault lines inherent in the management of records and their storage in rapidly changing technologies where authorship, ownership and jurisdiction may be questioned. Duranti and Rogers (2014:7) point out that several issues that are critical to the trust in online records and data and the trust in those responsible for their security are transparency, accountability, accessibility, choice, integrity and preservation. In view of the above, the trustworthiness of liquid communication generated through the use of social media in terms of its reliability and authenticity as evidence before the law should be investigated. This is even paramount in this era of post-truth and fake news where it has become easier to create and share information beyond the creator's control, such that Evans (2017) is of the view that the issue of fake news had continued to increasingly tarnish the image of social media. Duranti (2017) argues that the fact that people nowadays are always connected online has led to a situation where falsehoods and incorrect information circulate mainly through social media at rates unimaginable only a few decades ago. The question now becomes "How do we maintain the authoritative role of records as evidence in the digital era?"

The issue of social media and trust in government has been explored extensively in a research project titled 'The Social Media and Trust in Government' under the research agenda of InterPARES Trust (InterPARES 2016) with the goal to develop case studies that analyse the citizen experience with government social media tools and use, with respect to issues of trust, including concepts of openness, transparency, accountability and authenticity (InterPARES 2016:6). The study explored the types of social media initiatives undertaken by government organisations in the United States and Canada to determine how they utilise social media to engage citizens and provide customer service, as well as how the public reacts to those initiatives (InterPARES 2016:6). In both countries, significant care was taken to implement

controls around account creation, access and content, which formed a good basis to guide organisations using social media platforms to interact with customers.

## **2.6 Integrity and protection of liquid communication**

A record that has integrity is one that is complete and unaltered (ISO 15489 2016). To protect the integrity of social media records, policies and procedures should specify what additions or annotations are permissible after a record is created, under what circumstances, and who is authorised to make them (Franks 2010:26). Duranti (2014) lists the following as threats to records posted online: unauthorised access, hackers, documents can be stored anywhere and can be moved at any time without the knowledge of the records creator, encryption might be breached and shared servers could inter-mingle information. The main contention here is how to protect the integrity of liquid communication generated in generally unsecure environments. ARMA (2017) states that information governance programmes shall be constructed in such a way that the information generated by or managed for the organisation has a reasonable and suitable guarantee of authenticity and reliability (integrity). In records management, according to the International Council on Archives (ICA) (2016), the term often used to describe record qualities as reliable, authentic and accessible is ‘integrity’, which means the records are whole and without corruption. Yeo (2015:316) highlights that in digital environments, “documents” may be declared as records when they cease to be volatile and are captured in an electronic records management system. However, he does acknowledge the view by proponents of the continuum model that records status is not determined by crossing the threshold of such a system, but even informal communications have evidential characteristics that qualify them as records. Cloud computing service agreements for social media or free online storage carry greater risks to the security of information (Duranti & Rogers 2014:5). As such, the Botswana government should have measures in place to deal with the integrity of liquid communication generated through social media in government as suggested in the proposed framework for the governance of liquid communication by this study. The ICA (2016:13) argues that as records are the product of work processes, it follows that the quality and integrity of records depend on the quality and integrity of the work processes that generate them, which means if the work processes are poorly defined, inconsistent or not followed correctly, the records produced may not be adequate. According to Duranti (2014c), a document has integrity if the message it is meant to communicate in order to achieve its purpose is unaltered, and for that to happen the following integrity metadata have to exist:

- Name of handling persons over time
- Name of person responsible for keeping the record
- Indication of annotations
- Indication of technical changes
- Indication of presence or removal of a digital signature
- Time of planned removal from the system
- Time of transfer to a custodian
- Time of planned deletion

Jansen and Grance (2011:25) warn that the growing availability and use of social media, personal Webmail, and other publicly available sites are a concern, since they increasingly serve as avenues for social engineering attacks that can negatively impact the security of the client, its underlying platform and cloud services accessed. One way to deal with such threat has been suggested by ARMA (2017) that information governance should ensure a reasonable level of protection for records and information that are private, confidential, privileged, secret, classified, essential to business continuity, or that otherwise require protection under the Principle of Protection. Smallwood (2014:32) posits that this principle applies equally to physical and electronic records, each of which has unique requirements and challenges. The International Standards for Records Management (ISO 15489 (2016:7)) require that measures such as access controls, monitoring, agent validation and authorised destruction should be implemented to prevent unauthorised access, alteration, concealment or destruction of records. Information about the controls that were applied to a record and when they were applied should be recorded in the record's process metadata. Rogers (2015:6) also advises that organisations may use digital diplomatics, based on a foundation of traditional diplomatic principles, to help them identify digital records through their metadata and determine what metadata need to be captured, managed and preserved. Rogers (2009:9) explains digital diplomatics as a theory which provides a model of a “record” and a means of understanding and defining record authenticity as well as the elements that comprise it.

## **2.7 Retention and disposition of liquid communication**

Organisations that adopt and use social media platforms, thereby generating liquid communication, should take a conscious decision to archive the data generated or face legal

risks, since from a records management perspective, social media posts may serve the legal and compliance purposes (Franks & Smallwood 2014:264-254; Madhava 2011:33). To control the volume of information, an organisation needs a records retention programme that will define for it what information to retain, how long to maintain it for, and when and how to dispose of it when it is no longer required. This is based on the concept that information has a life cycle which begins at its creation and ends at its final disposition (ARMA 2017). Social media records are more than posts as they have metadata and hyperlinks to eternal content, thereby raising the need for them to be preserved to meet legal requirements, as argued by Franks and Smallwood (2014:264-268). According to Duranti (2014), preservation is the whole of the principles, policies and strategies that control the activities designed to ensure materials' (data, documents or records) physical and technological stabilisation and protection of intellectual content. It has been acknowledged that it is a challenge to ensure long-term preservation of liquid communication generated through social media (Duranti 2014b; Begum 2015; Franks & Driskill 2014). Begum (2015:iii) contends that social media technologies have already taken on an important role among the means of communication between the users and the government agencies in such a way that they have to preserve the important communications between the users and the agencies for future access. Shaffer (2016:236) points out that the increasing numbers of government-citizen transactions take place on third-party platforms and this may impede the effective preservation of and access to information and records of government. DiBianca (2014) adds to that argument saying that regardless of the method employed, the preservation of social media evidence is critically important and the consequences of failing to preserve it can be significant.

Research has demonstrated that preservation of records generated in the cloud environment such as social media has been a difficult task (Duranti et al 2008; Franks 2010; Duranti & Rogers 2014; InterPARES Trust 2016; Thompson 2016; Fondren & McCune 2018). It is with this background that this study proposes a framework for governance of liquid communication generated through the use of social media, which suggests preservation strategies for liquid communication. In the digital environment, research agendas in the information management communities focus on authenticity as an integral value that must be protected over time and across technological change through digital preservation (Rogers 2015:2). The ARMA principle of disposition requires that at the completion of their retention period, an organisation's records and information must be designated for disposition (ARMA 2017). In Botswana, section 11 of the NARS Act of 1978, as amended in 2007, gives the authority for

the disposition of public records of any kind to the director of the Botswana National Archives and Records Services. Ngoepe and Keakopa (2011:149) allude that government agencies in Botswana receive advice on the transfer of records to the records centres located in the capital, Gaborone, and the regional records centre in Francistown. However, Ngoepe (2017:149) argues about the same situation in South Africa that digital records can only be transferred to the national archives repository once infrastructure has been developed to ingest digital records of enduring value.

## **2.8 Accountability in information governance**

The ARMA (2017) principle of accountability requires that senior executive or a person of comparable authority should oversee the information governance programme and delegate responsibility for information management to appropriate individuals. This principle ties in well with objective number five of this study which sought to establish roles and responsibilities for the governance of liquid communication generated through social media in Botswana. It had been observed by Logan (2010) that the root of all information problems, among others, is the fact that there is generally no accountability for information. Smallwood (2014:30) explains the principle of accountability by highlighting that the primary role of the senior executive is to develop and implement records management policies, procedures and guidance as well as to provide advice on all records-keeping issues. Moreover, to ensure accountability in an organisation, an audit process must be developed to cover all aspects of records management, including assigning sufficient levels of accountability, employing appropriate technology to audit the information architecture and systems such as electronic records, updating accountability structures to go with technological changes and reinforcing compliance and holding individuals accountable (Smallwood 2014:30). This study therefore proposed a governance framework for liquid communication generated through the use of social media taking into consideration issues of roles and responsibilities which should be clearly spelt out in a social media policy.

## **2.9 Corporate governance**

Records management is increasingly linked to corporate governance requirements, risk management, and compliance programmes, particularly in the context of the audit culture and

ethical accountability (McLeod & Lomas 2015:348). Given the context of this research, it is imperative to briefly examine issues of corporate governance as it relates to technology and information governance. As noted by Mullon and Ngoepe (2019), changes in corporate governance, new information-related global legislation and regulations and the rapid increase in the amount of information in use in organisations have led to the need to clearly define a framework for IG, which is the purpose of this study. The King IV Report on Corporate Governance (2016) sets out a code on corporate governance and of particular interest in this study is Principle 12 under Part 5.4, which requires the governing body to govern technology and information in a way that supports the organisation in setting and achieving its strategic objectives (Institute of Directors Southern Africa 2016:61). A study by Josia et al (2016) which reviewed the corporate governance development in Botswana addressed a question of whether a company has an established IT governance charter, whether there is an information security management system in place and whether IT and IS issues are treated as an integral part of risk management. Of the 11 companies, six (54.5%) applied the above principles, while five (45.5%) neither applied nor explained their failure to comply. The author posits that while these companies were conscious of issues relating to technology and information systems, they may have not been actively treating them as serious governance issues.

Additionally, Principle 16 under Part 5.5 of the King IV Report on Corporate Governance (2016) regulates that in the execution of its governance role and responsibility, the governing body should adopt a stakeholder-inclusive approach that balances the needs, interests and expectations of stakeholders in the best interest of the organisation. (Institute of Directors Southern Africa 2016:61). With particular reference to dealing with social media, Franks (2010:13) also recognises the importance of engaging stakeholders such as information technology, legal and/or compliance, human resources, marketing and/or public relations, and representatives from business units when organisations adopt social media policies. The study by Josia et al (2016) noted weaknesses in the Botswana corporate governance code, saying was not clearly articulated as they relied heavily on the King code, without incorporating local peculiarities. The problematic areas were cited as the more contemporary governance issues such as information technology, information security and governance of risk as compliance was lacking in most companies (Josia et al 2016). According to ARMA (2018), information generated by an organisation in the course of business requires various degrees of protection, as mandated by laws, regulations, or corporate governance. Consequently, an organisation's

corporate governance, for example, would mandate protection to ensure that information critical to its continued operation during or after a crisis is available when needed.

## **2.10 Summary**

This chapter did a literature review that relates to the constructs of the theoretical and conceptual framework of this study, which mainly came from the ARMA Generally Accepted Recordkeeping Principles (2017). The chapter examined documentary sources relevant to information governance, liquid communication and the use of social media in Botswana. The literature review covered the discussion of the concept of liquid communication, the extent of the use of social media in Botswana, the legislative and policy framework, retention and disposition of liquid communication, trust and security in social media, accountability in information governance as well as a framework adopted in the study. The literature review also demonstrated the importance of information governance of liquid communication in order for organisations to comply with the regulatory requirements for transparency and accountability. The next chapter provides the research methodologies that were adopted in this study to examine the governance of liquid communication generated through the use of social media by the Botswana government.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The preceding chapter discussed the literature that relates to the governance of liquid communication in Botswana, particularly the concept of liquid communication, the extent of the use of social media in Botswana, the legislative and policy framework, retention and disposition of liquid communication, trust and security in social media, accountability in information governance as well as framework adopted in the study. Research methodology is a way to systematically solve a research problem by means of the researcher adopting various steps or strategies in studying his research problem, together with the logic behind them (Kothari 2004, Greener 2008). It answers the following questions:

- Why a research study has been undertaken?
- How the research problem has been defined, in what way and why the hypothesis has been formulated?
- What data have been collected and what particular method has been adopted?
- Why a particular technique of analysing data has been used (Kothari 2004:8)?

This section provides the research methodologies that will be adopted in this study to examine the governance of liquid communication generated through the use of social media in Botswana government agencies. The section covers the following areas: research paradigm, research approaches, research design, data collection methods and procedure, location and population of the study and data analysis techniques (See Figure 3.1).

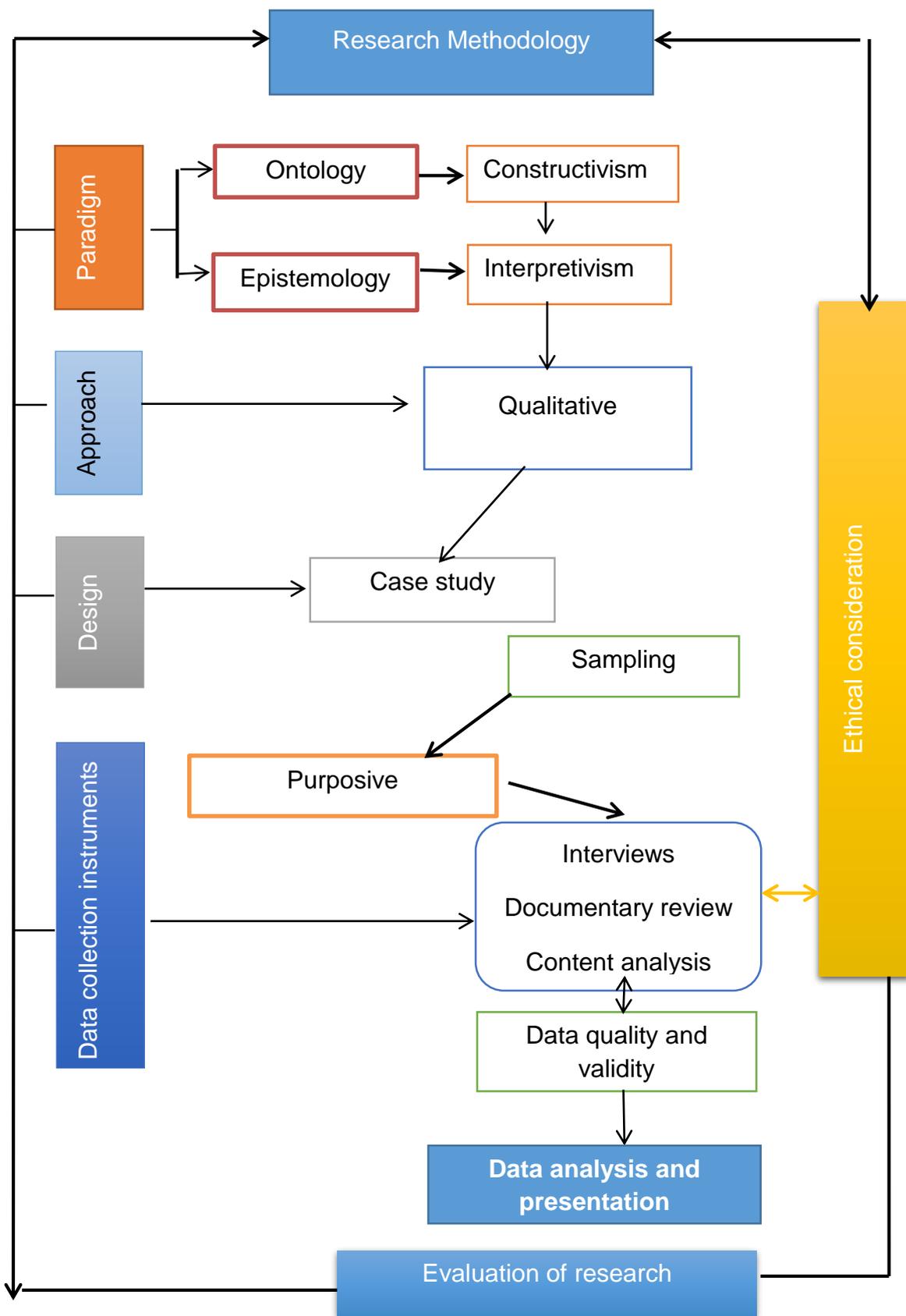


Figure 3.1: Research methodology road map

### 3.2 Research paradigm

A research paradigm is a general philosophical orientation about the world and the nature of research that a researcher brings to a study (Creswell 2014:35). There are several research paradigms. Although some scholars outline only three research paradigms which are interpretivism, pragmatism and positivism, Creswell (2014) gives four research paradigms, being interpretivism, pragmatism, positivism and transformative. While positivism strives for objectivity, measurability, predictability, controllability, patterning, the construction of laws and rules of behaviour, and the ascription of causality, the interpretive paradigms strive to understand and interpret the world in terms of its actors (Cohen & Manion 1994:26). Positivists' research is most commonly aligned with quantitative methods of data collection and analysis while the interpretive approach is commonly aligned to qualitative methods of data collection and analysis. A pragmatic philosophical paradigm allows a researcher to use tools from both the positivist and interpretivist paradigms.

This study employs the interpretive paradigm. The interpretivist researcher tends to rely on the participant views of the situation being studied and recognises the impact on the research of their own background and experiences (Creswell 2014). This paradigm was selected for this study because:

- it allows the researchers to ask broad research questions designed to explore, interpret, or understand the social context
- it allows the selection of participants through non-random methods, based on whether the individuals have information vital to the questions being asked
- data collection techniques involve observation and interviewing that bring the researcher in close contact with the participants
- it allows the researcher to take an interactive role to know the participants and their social context
- hypotheses are formed after the researcher begins data collection and are modified throughout the study as new data are collected and analysed (Thanh & Thanh 2015:26).

### 3.3 Research approach

Research approaches are the plans and procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis and interpretation (Creswell 2014: 32). While Leedy and Ormrod (2010:135) posit that many researchers identify two major methodological paradigms that have dominated the social research scene as qualitative and quantitative, Creswell (2014:32), Ngulube, Mokwatlo and Ndwandwe (2009:3) argue that there are three research approaches, being qualitative, quantitative and mixed methods. The three research approaches are explicitly defined by Creswell (2014:32) as follows:

- Qualitative research is an approach for exploring and understanding the meaning that individuals or groups ascribe to a social or human problem. The process of research involves emerging questions and procedures, data typically collected in the participant's setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data.
- Quantitative research is an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analysed using statistical procedures.
- Mixed methods research is an approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data and using distinct designs that may involve philosophical assumptions and theoretical frameworks. The core assumption of this form of inquiry is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone.

It is important here to highlight the differences between these approaches as stated by Creswell (2014) in Table 3.2.

**Table 3.2 Differences between research approaches (Creswell 2014)**

<b>Tend to or typically</b>	<b>Qualitative approaches</b>	<b>Quantitative approaches</b>	<b>Mixed methods approaches</b>
<ul style="list-style-type: none"> <li>• Use these philosophical assumptions</li> <li>• Employ these strategic enquiries</li> </ul>	<ul style="list-style-type: none"> <li>• Constructivist/ Transformative knowledge claims</li> <li>• Phenomenology, grounded theory, ethnography, case study and narrative</li> </ul>	<ul style="list-style-type: none"> <li>• Post-positivist knowledge claims</li> <li>• Surveys and experiments</li> </ul>	<ul style="list-style-type: none"> <li>• Pragmatic knowledge claims</li> <li>• Sequential, concurrent and transformative</li> </ul>
<ul style="list-style-type: none"> <li>• Employ these methods</li> </ul>	<ul style="list-style-type: none"> <li>• Open-ended questions, emerging approaches, text or image data</li> </ul>	<ul style="list-style-type: none"> <li>• Closed-ended questions, predetermined approaches, numeric</li> </ul>	<ul style="list-style-type: none"> <li>• Both open- and closed-ended questions, both emerging and predetermined approaches, and both quantitative and qualitative data analysis</li> </ul>
<ul style="list-style-type: none"> <li>• Use these practices of research as the researcher</li> </ul>	<ul style="list-style-type: none"> <li>• Positions him- or herself</li> <li>• Collects participants' meaning</li> <li>• Focuses on a single concept or phenomenon</li> <li>• Brings personal values into the study</li> <li>• Studies the context or setting of participants</li> <li>• Validates the accuracy of findings</li> <li>• Makes interpretations of the data</li> <li>• Creates an agenda for change or reform</li> <li>• Collaborates with the participants</li> </ul>	<ul style="list-style-type: none"> <li>• Tests or verifies theories or explanations</li> <li>• Identifies variables to study</li> <li>• Relates variables in questions or hypothesis</li> <li>• Uses standards of validity and reliability</li> <li>• Observes and measures information numerically</li> <li>• Uses unbiased approaches</li> <li>• Employs statistical procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Collects both quantitative and qualitative data</li> <li>• Develops a rationale for mixing</li> <li>• Integrates the data at different stages of inquiry</li> <li>• Presents visual pictures in the study</li> <li>• Employs the practices of both qualitative and quantitative research</li> </ul>

As different types of social problems call for different types of research approaches, this study uses the qualitative approach to address the research questions of ascertaining the governance of liquid communication. This approach was selected because the topic was new and little research had been done on the concept of governance of liquid communication generated

through the use of social media (Creswell 2003:22). Yin (2011:7-8) outlines the features of a qualitative research as:

- studying the meaning of people's lives, under real-world conditions
- representing the views and perspectives of the participants in a study
- covering the contextual conditions within which people live
- contributing insights into the existing or emerging concepts that may help explain social human behaviour
- striving to use multiple sources of evidence rather than relying on a single source alone.

### 3.4 Research design

Research designs are types of inquiries within qualitative, quantitative and mixed methods approaches that provide specific direction for procedures in a research study (Creswell 2014:295). Choosing a proper design or strategy depends on factors such as research topic, audience for the research, time and resources, the kind of study considered appropriate for the topic, access to information and people, among others (Greener 2008:38). Through a research design, a researcher is able to:

- conceptualise an operational plan to undertake the various procedures and tasks required to complete your study
- ensure that these procedures are adequate to obtain valid, objective and accurate answers to the research questions (Kumar 2011: 96).

Different scholars have identified research designs in qualitative research as narrative research, phenomenology, grounded theory, ethnographies and case study (Creswell 2014; Creswell 2012; Creswell 2003; Yin 2011) and explained them as follows:

- **Narrative research** – a design of inquiry from the humanities in which the researcher studies the lives of individuals and asks one or more individuals to provide stories about their lives.
- **Phenomenological research** – a design of inquiry coming from philosophy and psychology in which the researcher describes the lived experiences of individuals about a phenomenon as described by participants.

- **Grounded theory** – a design of inquiry from sociology in which the researcher derives a general, abstract theory of a process, action or interaction grounded in the views of participants.
- **Ethnography** – a design of inquiry coming from anthropology and sociology in which the researcher studies the shared patterns of behaviours, language and actions of an intact cultural group in a natural setting over a prolonged period of time.
- **Case studies** – a design of inquiry found in many fields, especially evaluation, in which the researcher develops an in-depth analysis of a case, often a programme, event, activity, process, or one or more individuals.

Having surveyed these different types of qualitative designs, this study chose case study design to examine the governance of liquid communication generated through the use of social media in Botswana. This type of design was chosen for this study to enable the researcher to closely examine the data within a specific context and it enabled the selection of a small geographical area or a very limited number of individuals as the subjects of study. Moreover, it enabled the investigation of contemporary real-life phenomena through detailed contextual analysis of a limited number of events and their relationship (Zainal 2007). Case studies are known to involve multiple ways of deriving data from a case or an organisation, like the government of Botswana, which include analysing documents and interviewing people (Greener 2008:81).

### **3.5 Population and sampling**

The population of the study is a group of individuals who possess the same characteristics (Creswell 2012:625), while sampling is a practical way of studying people and their activities, thoughts, attitudes, abilities and relationships in relation to the business activity (Greener 2008: 47). Kumar (2011) identifies five sampling methods which are commonly used in both qualitative and quantitative research as:

- **Quota sampling**

The main consideration directing quota sampling is the researcher's ease of access to the sample population. In addition to convenience, you are guided by some visible characteristic, such as gender or race of the study population that is of interest to you. The sample is selected from a location convenient to you as a researcher, and whenever a person with this visible

relevant characteristic is seen, that person is asked to participate in the study. The process continues until you have been able to contact the required number of respondents (quota).

- **Accidental sampling**

Accidental sampling is also based on convenience in accessing the sampling population. Whereas quota sampling attempts to include people possessing an obvious/visible characteristic, accidental sampling makes no such attempt. You stop collecting data when you reach the required number of respondents you decided to have in your sample. This method of sampling is common among market researchers and newspaper reporters. It has more or less the same advantages and disadvantages as quota sampling but, in addition, as you are not guided by any obvious characteristics, some people contacted may not have the required information.

- **Judgemental or purposive sampling**

The primary consideration in purposive sampling is your judgement as to who can provide the best information to achieve the objectives of your study. You as a researcher only go to those people who, in your opinion, are likely to have the required information and would be willing to share it with you.

- **Expert sampling**

The only difference between judgemental sampling and expert sampling is that in the case of the former, it is entirely on the judgement of the researcher as to the ability of the respondents to contribute to the study. However, in the case of expert sampling, your respondents must be known experts in the field of interest to you. This is again used in both types of research but more so in qualitative research studies. When you use it in qualitative research, the number of people you talk to is dependent upon the data saturation point, whereas in quantitative research, you decide on the number of experts to be contacted without considering the saturation point. You first identify persons with demonstrated or known expertise in an area of interest to you, seek their consent for participation, and then collect the information either individually or collectively in the form of a group.

- **Snowball sampling**

Snowball sampling is the process of selecting a sample using networks. To start with, a few individuals in a group or organisation are selected and the required information is collected from them. They are then asked to identify other people in the group or organisation, and the people selected by them become a part of the sample. Information is collected from them and they are asked to identify other members of the group and, in turn, those members identified become the basis of further data collection. This process is continued until the required number or a saturation point is reached in terms of the information being sought.

- **Systematic sampling design: a ‘mixed’ design**

Systematic sampling has been classified as a ‘mixed’ sampling design because it has the characteristics of both random and non-random sampling designs. In systematic sampling, the sampling frame is first divided into a number of segments called intervals. Then, from the first interval, using the SRS technique, one element is selected. The selection of subsequent elements from other intervals is dependent upon the order of the element selected in the first interval. If in the first interval it is the fifth element, the fifth element of each subsequent interval will be chosen.

With that explanation, an appropriate sample was selected for this study. As is the norm with qualitative research, the sample is likely to be chosen in a deliberate manner known as purposive sampling, as it was in this case where only the following four Botswana government departments were purposively selected because their functions were relevant for this study:

- Botswana Government Communications and Information System Office – This office is a division under the Office of the President established to ensure that the government at all times communicates appropriate information in a timely, authoritative, coherent, coordinated and proactive manner. This office administers the Botswana government’s social media platforms.
- Botswana National Archives and Records Services – provides records and information management services to government agencies.
- Botswana Communications Regulatory Authority – regulates the communications sector in Botswana, comprising telecommunications, internet and ICTs, radio communications, broadcasting, postal services and related matters.
- Department of Information and Technology – mandated to provide internet connectivity, among other things, in government.

This study also adopted a purposive sampling method to obtain a sample size of the participants of the study among the governments departments above (See Table 3.3). The participants were targeted based on their experience and knowledge of the usage of Botswana government social networks and information management in the country. Creswell (2012:206) explains that while the focus in quantitative research is on random sampling resulting in testing theories that explain the population, in qualitative research, the researcher selects people or sites that can best help in understanding the principal phenomenon. This type of sampling relies heavily on the subjective consideration of the researcher rather than scientific criteria. Creswell (2012) argues that purposive sampling is extremely useful when a researcher wants to construct a historical reality, describe a phenomenon or develop something about which only a little is known, as was the case with this study. A summary of the sample population is illustrated in Table 3.3.

**Table 3.3: Summary of sample population for the study**

Sn	Agency	Sample groups	Research instrument	Purposively sampled		Sub-total	Total
				Head of the unit	Assistant head of the unit		
1	Botswana Government Communication and Information System	Public Relations Officer	Interview	1	3	4	5
		Records Manager	Interview	1	0	1	
2	Department of Information and Technology	Chief programmer	Interview	1	0	1	1
3	Botswana National Archives and Records Services	Archives administration	Interview	1	2	3	5
		Records management	Interview	1	1	2	
4	Botswana Communications and Regulatory Authority	Director – Corporate Services	Interview	1	0	1	1

**Total**

**12**

### 3.6 Data collection instruments

The data collection steps include setting the boundaries for the study, collecting information through unstructured or semi-structured observations and interviews, documents and visual materials, as well as establishing the protocol for recording information (Creswell 2014:239). This study used the triangulation method of data collection in terms of which documents, interviews and content analysis were used as data collection instruments (See Table 3.4). As it allows corroboration, this method serves as another way of strengthening the validity of a study (Yin 2011:81).

**Table 3.4 Data collection types, options, advantages and limitations (Yin 2011)**

<b>Data collection types</b>	<b>Options within types</b>	<b>Advantages of the types</b>	<b>Limitations of the type</b>
<b>Interviews</b>	<ul style="list-style-type: none"> <li>• Face-to-face, one on one, in-person interview</li> <li>• Telephone; researcher interviews by phone</li> <li>• Group: researcher interviews participants in a group</li> </ul>	<ul style="list-style-type: none"> <li>• Useful when participants cannot be observed directly</li> <li>• Participant can provide historical information</li> <li>• Allows researcher “control” over the line of questioning</li> </ul>	<ul style="list-style-type: none"> <li>• Provides “indirect” information filtered through views of interviewees</li> <li>• Provides information in a designated “place” rather than the natural field setting</li> <li>• Researcher’s presence may bias responses</li> <li>• People are not equally articulate and perceptive</li> </ul>
<b>Documents</b>	<ul style="list-style-type: none"> <li>• Public documents such as minutes of meetings and newspapers</li> <li>• Private documents such as journals, diaries and letters</li> <li>• E-mail discussions</li> </ul>	<ul style="list-style-type: none"> <li>• Enables a researcher to obtain the language and words of the participants</li> <li>• Can be accessed at a time convenient to the researcher, an obstructive source of information</li> <li>• Represents data that are thoughtful, in that participants have given attention to compiling</li> <li>• As written evidence, it saves a researcher the time and expense of transcribing</li> </ul>	<ul style="list-style-type: none"> <li>• May be protected information unavailable to public or private access</li> <li>• Requires the researcher to search out the information in hard-to-find places</li> <li>• Requires transcribing or optically scanning for computer entry</li> <li>• Materials may be incomplete</li> <li>• Documents may not be authentic or accurate</li> </ul>
<b>Audio visual materials</b>	<ul style="list-style-type: none"> <li>• Photographs</li> <li>• Videotapes</li> <li>• Art objects</li> <li>• Computer software</li> <li>• Film</li> </ul>	<ul style="list-style-type: none"> <li>• May be obstructive method of collecting data</li> <li>• Provides an opportunity for participants to directly share their “reality”</li> <li>• Creative in that it captures attention visually</li> </ul>	<ul style="list-style-type: none"> <li>• May be difficult to interpret</li> <li>• May not be accessible publicly or privately</li> <li>• The presence of an observer (e.g. photographer) may be disruptive and may affect responses</li> </ul>

### 3.6.1 Interview

As is the norm with qualitative studies, this study used interviews as one of the data collection instruments. In qualitative research, the researcher conducts face-to-face or telephonic interviews with participants, or engages in focus group interviews. These interviews involve unstructured and generally open-ended questions that are in number format and intended to

elicit views and opinions from the participants (Creswell 2014:240). This is further explained by Babbie and Mouton (2001) who state that the use of the interview method offers the advantage of obtaining a better response rate, as personal contact provides a better chance to correct any misunderstanding between the researcher and the respondent. This study used semi-structured interviews administered face to face, one on one and telephonically to collect data from the participants (see Appendix 6, Appendix 7, Appendix 8 and Appendix 9). Semi-structured qualitative interviews for individuals and groups gather data on the more intangible aspects such as values, assumptions, beliefs, wishes and problems (Cohen, Manion & Morrison 2007:97). As the main data collection methods in this study, both personal interview and telephonic interview advantages and disadvantages are explained further by Kothari (2004:98-100). Table 3.5 depicts advantages and disadvantages of the personal interview. Table 3.6 illustrates the data collection types, options, advantages and limitations as explained by Creswell (2003:186-187).

**Table 3.5 Advantages and disadvantages of personal interviews (Kothari 2004)**

Advantages of personal interviews	Disadvantages of personal interviews
<ul style="list-style-type: none"> <li>• More information and can be obtained in greater depth.</li> </ul>	<ul style="list-style-type: none"> <li>• It is a very expensive method, especially when a large and widely spread geographical sample is used.</li> </ul>
<ul style="list-style-type: none"> <li>• Interviewer by his own skill can overcome the resistance, if any, of the respondents; the interview method can be made to yield an almost perfect sample of the general population.</li> </ul>	<ul style="list-style-type: none"> <li>• There remains the possibility of the bias of the interviewer as well as that of the respondent. There also remains the headache of supervision and control of interviewers.</li> </ul>
<ul style="list-style-type: none"> <li>• There is greater flexibility under this method as the opportunity to restructure questions is always there, especially in the case of unstructured interviews.</li> </ul>	<ul style="list-style-type: none"> <li>• Certain types of respondents such as important officials or executives or people in high-income groups may not be easily approachable under this method and to that extent, the data may prove inadequate.</li> </ul>
<ul style="list-style-type: none"> <li>• Observation method can also be applied to recording verbal answers to various questions.</li> </ul>	<ul style="list-style-type: none"> <li>• This method is relatively more time-consuming, especially when the sample</li> </ul>

	is large and recalls upon the respondents are necessary.
<ul style="list-style-type: none"> <li>• Personal information can be obtained easily under this method.</li> </ul>	<ul style="list-style-type: none"> <li>• The presence of the interviewer on the spot may over-stimulate the respondent, sometimes even to the extent that he may give imaginary information just to make the interview interesting.</li> </ul>
<ul style="list-style-type: none"> <li>• Samples can be controlled more effectively as there arises no difficulty of the missing returns; non-response generally remains very low.</li> </ul>	<ul style="list-style-type: none"> <li>• Under this interview method, the organisation required for selecting, training and supervising of the field staff is more complex with formidable problems.</li> </ul>
<ul style="list-style-type: none"> <li>• The interviewer can usually control which person(s) will answer the questions. This is not possible in a mailed questionnaire approach. If so desired, group discussions may also be held.</li> </ul>	<ul style="list-style-type: none"> <li>• Interviewing at times may also introduce systematic errors.</li> </ul>
<ul style="list-style-type: none"> <li>• The interviewer may catch the informant off-guard and thus may secure the most spontaneous reactions than would be the case if a mailed questionnaire is used.</li> </ul>	<ul style="list-style-type: none"> <li>• Effective interview presupposes proper rapport with respondents that would facilitate free and frank responses. This is often a very difficult requirement.</li> </ul>
<ul style="list-style-type: none"> <li>• The language of the interview can be adopted to the ability or educational level of the person interviewed and as such misinterpretations concerning questions can be avoided.</li> </ul>	
<ul style="list-style-type: none"> <li>• The interviewer can collect supplementary information about the respondent's personal characteristics and environment, which is often of great value in interpreting results.</li> </ul>	

A telephonic interview is the method of collecting information through contacting respondents by telephone (Kothari 2004:17). Table 3.5 illustrates the advantages and disadvantages of the telephonic interview.

**Table 3.6 Advantages and disadvantages of telephonic interview (Creswell 2003)**

Advantages of telephonic interview	Disadvantages of telephonic interview
<ul style="list-style-type: none"> <li>• It is more flexible in comparison to the mailing method.</li> </ul>	<ul style="list-style-type: none"> <li>• Little time is given to respondents for considered answers; interview period is not likely to exceed five minutes in most cases.</li> </ul>
<ul style="list-style-type: none"> <li>• It is faster than other methods, i.e. a quick way of obtaining information.</li> </ul>	<ul style="list-style-type: none"> <li>• Surveys are restricted to respondents who have telephone facilities.</li> </ul>
<ul style="list-style-type: none"> <li>• It is cheaper than personal interviewing method; here the cost per response is relatively low.</li> </ul>	<ul style="list-style-type: none"> <li>• Extensive geographical coverage may become restricted by cost considerations.</li> </ul>
<ul style="list-style-type: none"> <li>• Recall is easy; callbacks are simple and economical.</li> </ul>	<ul style="list-style-type: none"> <li>• It is not suitable for intensive surveys where comprehensive answers are required to various questions.</li> </ul>
<ul style="list-style-type: none"> <li>• There is a higher rate of response than what we have in the mailing method; the non-response is generally very low.</li> </ul>	<ul style="list-style-type: none"> <li>• Possibility of the bias of the interviewer is relatively more.</li> </ul>
<ul style="list-style-type: none"> <li>• Replies can be recorded without causing embarrassment to respondents.</li> </ul>	<ul style="list-style-type: none"> <li>• Questions have to be short and to the point; probes are difficult to handle.</li> </ul>
<ul style="list-style-type: none"> <li>• Interviewer can explain requirements more easily.</li> </ul>	
<ul style="list-style-type: none"> <li>• At times, access can be gained to respondents who otherwise cannot be contacted for one reason or the other.</li> </ul>	
<ul style="list-style-type: none"> <li>• No field staff is required.</li> </ul>	
<ul style="list-style-type: none"> <li>• Representative and wider distribution of sample is possible.</li> </ul>	

### **3.6.2 Documentary review**

Although Cohen et al (2007:194) posit that documents are considered as primary sources and include manuscripts, charters, laws, archives of official minutes or records, files, letters, memoranda, memoirs, biographies, official publications, wills, newspapers and magazines, maps, diagrams, catalogues, films, paintings, inscriptions, recordings, transcriptions, log books and research reports, Walliman (2011:79-70) classifies documentary sources as secondary in the form of non-written and written materials:

- Written materials – organisational records such as internal reports, annual reports, production records, personnel data, committee reports and minutes of meetings; communications such as emails, letters, notes; publications, such as books, journals, newspapers, advertising copy, government publications of all kinds, etc.
- Non-written materials – television programmes, radio programmes, tape recordings, video tapes, films of all types, including documentary, live reporting, interviews, etc. works of art, historical artefacts, etc.

In this study, a documentary review of the official publications, internal and external reports, research articles, presentations, newspapers, legislation and policies is expected to support the governance of liquid communication in Botswana. Although a document may be taken as unrepresentative, selective, lacking in objectivity, of unknown validity and deliberately deceptive, documents were still used as data collection instrument for this study because they are always available at a low cost, if any, and considered to be factual as they were published in the public domain. This study also analysed the Botswana government's social media pages as directed by the participants for more information.

### **3.7 Trustworthiness of data collection instruments**

The validity and the norms of rigor that are applied to quantitative research are not entirely applicable to qualitative research, as validity in qualitative research means the extent to which the data are plausible, credible and trustworthy; and thus can be defended when challenged (Bashir, Afzal & Azeem 2008:35). According to Shenton (2004) and Guba (1981) there are four criteria for ensuring trustworthiness of qualitative research as:

- **Credibility (in preference to internal validity):** *the researcher attempts to demonstrate that a true picture of the phenomenon under scrutiny is being presented.* In this study, the researcher adopted research methods that are well established both in qualitative investigation in general and in information science in particular. Preliminary visits to the organisations were undertaken for the researcher to familiarise herself with the participants' settings. As is common with qualitative studies, the triangulation method was used involving the use of different data collection methods such as personal interviews and documentary review, which formed major data collection methods for this study. To ensure honesty by participants, the participants were asked during data collection to answer the questions on a voluntary basis and they were given an option to not state their names if they wished. Apart from that, the respondents were informed that the responses were only to be used for academic research purposes. Moreover, throughout the research period, the researcher had frequent debriefing sessions with the superior of the research to discuss approaches and gaps that were identified in the study. Member checking was done for the participants to confirm whether the researcher had captured the messages exactly as the participants wanted to relay them. The researcher also did a literature review on the governance of liquid communicated generated through the use of social media as well as on constructs of the research problem.
  
- **Transferability (in preference to external validity/generalisability):** *the researcher provides sufficient detail of the context of the fieldwork for the reader to be able to decide whether the prevailing environment is similar to another situation with which he or she is familiar and whether the findings can justifiably be applied to the other setting.* Since the findings of a qualitative project are specific to a small number of particular environments and individuals, it is impossible to demonstrate that the findings and conclusions are applicable to other situations and populations (Shenton 2004). To allay fears of transference, the following information is captured in this study:

  - a. The number of organisations taking part in the study and where they are based.
  - b. The number of participants involved in the study.
  - c. The data collection methods that were employed.
  - d. The time period over which the data were collected.

- **Dependability (in preference to reliability):** *researchers should at least strive to enable a future investigator to repeat the study.* To provide a thorough understanding of the study methods and their effectiveness, the following sections are included:
  - a. The research design and its implementation, describing what was planned and executed at a strategic level
  - b. The operational detail of data gathering, addressing the minutiae of what was done in the field
  - c. Reflective appraisal of the project, evaluating the effectiveness of the process of inquiry undertaken
  
- **Confirmability (in preference to objectivity):** *researchers must take steps to demonstrate that findings emerge from the data and not their own predispositions.* To ensure that the findings of this study are the result of the experiences and ideas of the participants, Chapter Four gives a presentation of the results as collected through different methods of data collection, rather than the characteristics and preferences of the researcher. Since the concept of liquid communication and governance of social media content seemed to be a new phenomenon to the participants, there were instances where the researcher had to explain concepts to the participants, which may influence their answers to the research questions.

### 3.8 Data analysis

Attride-Stirling (2001:385) argues that despite the growth in qualitative research, there is a regrettable lack of tools available for the analysis of qualitative material. However, qualitative research data analysis consists of developing a general sense of the data in the initial stage and then coding description and themes about the central phenomenon (Creswell 2012:237). Personal interviews and documentary reviews formed major data collection methods for this study. As advised by Kothari (2004:18), data analysis requires a number of closely related operations such as the establishment of categories, application of these categories to raw data through coding, tabulation and then drawing statistical inferences. The qualitative data collected in this study were coded and analysed through thematic analysis. Information collected through interviews was transcribed, coded and sorted. The themes for analysis were generated as per the constructs of the research framework for this study (Creswell 2014:249).

In line with Attride-Stirling's (2001:391) thematic networks technique for conducting thematic analysis of qualitative material, which presents a step-by-step guide of the analytic process, the researcher in this study undertook:

A. Analysis stage A: reduction or breakdown of text

Step 1 – Code Material

- a) Devise a coding framework
- b) Dissect text into text segments using the coding framework

Step 2 – Identify Themes

- a) Abstract themes from coded text segments
- b) Refine themes

Step 3 – Construct Thematic Networks

- a) Arrange themes
- b) Select Basic themes
- c) Rearrange into organising themes
- d) Deduce global theme(s)
- e) Illustrate as thematic network(s)
- f) Verify and refine the network(s)

B. Analysis stage B: exploration of text

Step 4 – Describe and Explore Thematic Networks

- a) Describe the network
- b) Explore the network

Step 5 – Summarise Thematic Networks

C. Analysis stage C: integration of exploration

Step 6 – Interpret Patterns

According to Attride-Stirling (2001:389), a thematic network is developed starting from the basic themes and working inwards towards a global theme. Once a collection of basic themes has been derived, they are then classified according to the underlying story they are telling and these become the organising themes. Organising themes are then reinterpreted in view of their basic themes, and are brought together to illustrate a single conclusion or super-ordinate theme that becomes the global theme (Attride-Stirling 2001:389). These data analysis activities are demonstrated in Chapter four of this study. The findings of the study are presented thematically through narratives, tables and figures.

### **3.9 Ethical considerations**

It is crucial for a researcher to observe ethical consideration when conducting research. Cohen et al (2007:71) posit that ethical regulation exists at several levels such as legislation, ethics review committees to oversee research in universities, ethical codes of the professional bodies and associations, as well as the personal ethics of an individual researcher. According to Bell (2005), research ethics is about one being clear about the nature of the agreement someone enters into with his/her research subjects or contacts. In view of the importance of ethical clearance in research, this study obtained ethical clearance from the DIT's Science Research Ethics Review Committee at the University of South Africa (UNISA). The researcher also applied for a research permit from the Office of the President in Botswana and was granted the permit to conduct this research in Botswana (See Appendix 1 and Appendix 2). During the data collection, participants were asked to answer the questions on a voluntary basis and were given the option to remain anonymous if they so wished. Apart from that, the respondents were informed that the responses were only to be used for academic research purposes (See Appendix 5). Moreover, the study used the UNISA Policy on Research Ethics (2016) to comply with ethical consideration during the research (See Appendix 3 and Appendix 4). Drawing from that policy cause which states that "researchers may not commit plagiarism, piracy, falsification or the fabrication of results at any stage of the research", any source of information consulted in writing this research were acknowledged.

### **3.10 Evaluation of research**

It is necessary to evaluate the procedures involved in data collection and analysis as all research methods have imperfections which may cast a hint of doubt on the study findings (Ngoepe 2012:115). A research permit for this study was granted without any problems encountered and the data collection started soon afterwards. The researcher was able to collect data mostly through semi-structured qualitative interviews, telephone and emails.

As no study can be said to be perfect, this study encountered some challenges that need to be highlighted here. One of the main challenges encountered in this research was to find participants to interview. The Botswana government's social media pages were managed by public relations officers (PROs) at the Office of the President under the BGCIS office. That meant they were not always available for interviews as they had to be always covering events

of the President, as well as the executive. As a result, some of the interviews were done telephonically. The experience of telephonic interviews revealed that the interviewee shared far less information than in face-to-face interviews. It is worth noting here that the data collection for this study was done during the end of the era for the sitting President in Botswana from November 2017 until he left in April 2018. It is a norm for the President of the country to tour the country to bid farewell to the villagers and that meant a busy period for PROs; hence, they were hardly available for interviews.

The other challenge faced in this research was that the concept of liquid communication or even governance of information generated through the use of social media was new to the participants as most of them, if not all, did not before the interview think that social media content may be governed for future access and preservation. To most of them, social media was just another platform to disseminate government information as they did with the traditional methods of outreach, such as newsletters. The consequence that came with this fact was that some potential participants for the study were reluctant and some completely refused to participate in this study. One participant said the issue of social media was very new in government and as such he was uncomfortable to grant me an interview as not much ground work had been done on the subject. Nonetheless, interviewed participants generated data that were considered sufficient to make generalisations in this study.

### **3.11 Summary**

This chapter presented research methodologies used in this study to examine the governance of liquid communication generated through the use of social media by the Botswana government. The research paradigm, research approach and research design that were adopted for this study were discussed in detail. The population of the study was defined and sampling procedures utilised to select the sample size. Interviews and documents were discussed as the main data collection instruments of the study. This chapter also discussed the methods used to ensure the reliability, validity and trustworthiness of data instruments. Data analysis used in this study, ethical consideration and the evaluation of research of the research methodologies were covered under this chapter. The next chapter will present the results of this study as collected through interviews and documentary review related to the governance of liquid communication generated through the use of social media by the Botswana government.



## **CHAPTER FOUR**

### **DATA ANALYSIS AND PRESENTATION OF THE FINDINGS**

#### **4.1 Introduction**

The previous chapter presented the research methodology applied in this study to understand its research questions. It covered methodological processes such as the research paradigm, research approach, study population and sampling methods used, study, data collection instruments used, data analysis, ethical considerations as well as an evaluation of the research methodology. This chapter presents the study findings obtained through the qualitative research method. Data analysis and presentation of the findings are important because it enables the researcher to make sense of the information supplied by the research participants in the study (Creswell 2012:10). The data analysed in this study were collected through the use of questionnaires, interviews and content analysis. The findings of this study are presented thematically through narratives, tables and figures, which is in line with the argument by Yin (2011:233) that qualitative data are likely to be represented in narratives or in data arrays such as word tables, hierarchies, matrices and other diagrams. A key of the abbreviations of the participants by their institutions is provided in this chapter instead of the names as per the ethical consideration, which requires the protection of participants' privacy and concealment of their identities. The results are presented according to the research objectives which were organised according to the following themes:

- The legislative and policy framework in relation to the governance of liquid communication.
- The extent of usage of social media by the Botswana government.
- Integrity of liquid communication generated through social media
- Retention and disposition of liquid communication.
- Roles and responsibilities for the management of liquid communication.
- A framework for liquid communication governance.

#### **Key**

BGCIS – Botswana Government Communication and Information Systems (public relation officers)

BNARS – Botswana National Archives and Records Services (archivists and records managers)

DIT – Department of Information and Technology (chief programmer)

BOCRA – Botswana Communications and Regulatory (director: corporate communication)

## **4.2 Background of participants**

As is the norm with qualitative studies, this study had no formula for defining the desired number of instances for each unit of data collection (Yin 2011:89). This is further explained by Kumar (2011:176) that while in quantitative studies considerable importance is placed on the sample size, in qualitative research, the sample size does not play any significant role as the purpose is to study only one or a few cases in order to identify the spread of diversity and not its magnitude whereby the data saturation stage during data collection determines the sample size. It is in line with the argument put forward by Kumar (2011:176) that in this study, the sample size did not play a significant role. The purpose was to study only one or a few cases in order to identify the spread of diversity and not its magnitude whereby the data saturation stage determined the sample size. The participants of the study were chosen through purposive sampling because they would yield the most relevant and plentiful data required to address the objective of the study (Yin 2011:88). The researcher interviewed PROs, who are the administrators of the government of Botswana's social media pages and a records manager based at the BGCIS, chief programmer at the DIT as well as the director of corporate communications at the BOCRA. More data were collected from archivists and records managers at BNARS. The total number of the purposively selected participants was 12. Table 4.1 illustrates a representation of the participants of this study.

**Table 4.1: A representation of the participants**

Sn	Agency	Sample Groups	Research Instrument	Purposively Sampled		Sub-total	Total
				Head of the Unit	Assistant		
1	BGCIS	Public relations officer	Interview	1	3	4	5
		Records manager	Interview	1	0	1	
2	DIT	Chief programmer	Interview	1	0	1	1
3	BNARS	Archives administration	Interview	1	2	3	5
		Records management	Interview	1	1	2	
4	BOCRA	Corporate services	Interview	1	0	1	1

**Total**

**12**

### 4.3 Data presentation

The data collected in this research through interviewing participants, examining documents and analysing content were reviewed and organised into themes that cut across all the data sources in order to answer the research questions as raised in Chapter One. The objective of this study was to examine the governance of liquid communication generated through the use of social media by the Botswana government with the view to developing a framework. The data are presented as per the specific objectives of the study as follows:

1. To examine the legislative and policy framework for the governance of liquid communication generated through the use of social media in the Botswana government.
2. To assess the extent to which social media is used by the Botswana government.
3. To examine measures put in place to maintain the integrity of liquid communication generated through the use of social media in the Botswana government.

4. To investigate how liquid communication generated through social media in the Botswana government is retained and disposed of.
5. To establish roles and responsibilities for the management of liquid communication generated through social media in Botswana.
6. To propose a framework for liquid communication governance in the Botswana government.

#### **4.3.1 The legislative and policy framework**

The first objective of this study was to examine the legislative, policy and transparency requirements in relation to the governance of liquid communication generated through the use of social media by the Botswana government. This objective was informed by the ARMA (2017) principle of compliance, which states that where there is information governance, the programme has to comply with applicable laws and other binding authorities, as well as with the organisation's policies. The themes that came out of this main theme included the legislative and policy framework for the governance of liquid communication, management of social media entries as records, requirements for social media entries for legal or other business purposes, the retrieval of the entries and, finally, the risks associated with the use of social media tools by the government of Botswana.

This study undertook a documentary review of the existing legislation and policies expected to support the governance of liquid communication in Botswana. The existing laws and policies expected to support liquid communication in Botswana have been identified as follows:

- **National Archives and Records Services Act of 1978 (amended in 2007):** This act makes provision for the preservation, custody, control and disposal of public archives, including public records of Botswana, and for matters incidental thereto or connected therewith. The act defines a record as any electronic records, manuscript, newspaper, picture, painting, document, register, printed material, book, map, plan, drawing, photograph, negative and positive pictures, photocopy, microfilm, cinematograph film, video tape, magnetic tape, gramophone record or other transcription of language, picture or music, recorded by any means capable of reproduction and regardless of physical form and characteristics.

- **Cybercrime and Computer Related Crimes Act of 2007(Amended 2010, 2017):** An act to combat cybercrime and computer-related crimes to repress criminal activities perpetrated through computer systems and to facilitate the collection of electronic evidence. This act defines data as:

(b) any information recorded in a form in which it can be processed by equipment operating automatically in response to instructions given for that purpose. It also has a definition of “traffic data” which means any data-

  - (i) that relates to communication by means of a computer or computer system; and
  - (ii) that is generated by a computer or computer system that is part of the chain of communication; and that shows the communication’s origin, destination, route, time, date, size, duration, or type of underlying service. Section 24 of this act talks about real-time collection of traffic data and it provides that: a police officer or any person authorised by the commissioner or by the director, in writing, may apply to a judicial officer, ex parte, for an order-
    - for the collection or recording of traffic data, in real time, associated with specified communications transmitted by means of any computer or computer system; or
    - compelling a service provider, within its technical capabilities, to
      - effect such collection and recording referred to in subparagraph (a); or
      - assist the police, to effect such collection and recording.
  
- **Electronic Records (Evidence) Act No. 13 of 2014:** This act provides for the admissibility of electronic records as evidence in legal proceedings and authentication of electronic records. This act defines electronic records as: data that are recorded or stored on any medium in or by a computer system or other similar devices and that can be read and include a display, printout or other output of that data.
  
- **Electronic Communications and Transaction Act No. 14 of 2014:** An act to provide for the admissibility of electronic records as evidence in legal proceedings and authentication of electronic records; to provide for the admissibility of electronic records as original records.
  
- **National Information and Communications Technology Policy (2007):** The National Information and Communications Technology Policy is meant to provide

Botswana with a roadmap that will drive social, economic, cultural and political transformation in the years ahead through the effective use of ICT.

- **Computer Equipment Acceptable Use Policy (2001):** The purpose of this policy is to outline the acceptable use of computer equipment on the GDN. These rules are in place to protect the employee and government. Inappropriate use exposes the GDN to risks such as virus attacks, compromise of network systems and services, and denial of services, not forgetting poor service delivery to the nation at large.
- **Anti-virus and Malware Policy (2001):** This policy is designed to protect the organisational resources against intrusion by viruses and other malware.
- **Internet Access Policy (2010):** The main purpose of this policy is to outline the proper use of the internet services. Only authorised users will be allowed to surf the internet. The DIT will be the only body to provide internet services; hence, all the usernames and passwords used to access the internet will be sourced from the DIT. This document will provide guidelines and procedures for browsing the internet and everyone should abide by the rules set in this document.
- **Removable Media Policy (2010):** The policy creates the principles and working practices and guidelines that are to be adopted by all users in order for data to be safely stored and transferred on removable media. This policy aims to ensure that the use of removable media devices is controlled in order to:
  - enable the correct data to be made available where it is required
  - maintain the integrity of the data for ever
  - prevent unintended or deliberate consequences to the stability of government data network
  - avoid infringement of any legislation, policies or good practice requirements
  - build confidence and trust in the data that are being shared between systems
  - maintain high standards of care in ensuring the security of protected and restricted information
  - prohibit the disclosure of information as may be necessary by law.
- **Password Policy (2006):** The purpose of this policy is to establish a standard for creating strong passwords, the protection of those passwords and the frequency of change and management and control of passwords. The benefits of the password policy are as follows:
  - Reduced threat of system hijack

- Reduced phishing tricks
- Reduced sending of emails on other people's behalf
- **Web-content publishing framework (2009):** This document seeks to provide best practice guidelines to coordinate, manage and quality assure web-content generated by all ministries and departments. Web-content management involves the appropriate management of websites, including content gathering, approval, record keeping and review of web content. It involves ensuring that the information published is correct, timely, up to date, consistent and accurate.
- **Botswana Government Communication Policy Draft (2007):** The purpose of this policy is to ensure that communication across the Botswana government is well coordinated, effectively managed and responsive to the diverse information needs of the public.

#### **4.3.1.1 Laws and policies expected to support liquid communication**

The participants of this study were asked to state legislation and policies that supported liquid communication generated through the use of social media in Botswana. Participants BGCIS1, BGCIS2, BGCIS3, BGCIS4, BGCIS5, BNARS1, BNARS2, BNARS3, BNARS4, BNARS5 and BOCRA1 indicated that there was no social media policy for the Botswana government. Nevertheless, the participants cited the Electronic Communications and Transaction Act, No. 14 of 2014, which was being implemented by the Botswana Communications and Regulatory Authority as well as the Cybercrime Act, which was meant to curb abuse of the internet and any associated media using the worldwide net. Other legislation and policies cited by the participants as supporting the governance of liquid communication included the NARS Act and its regulations of 2011 and the Criminal Procedure and Evidence Act, both of which were available on the government portal under the e-laws website. Participant DIT1 indicated that the internet access policy, whose main purpose was to outline the proper usage of the internet services in government, supports the use of social media. It provides guidelines and procedures for browsing the internet which should be abided by all employees. It does not specifically address social media. Acknowledging the importance of having a social media policy, participant BNARS3 said "I am not aware of any social media-specific policy, but often times the understanding is that the organisation must adopt a wide-organisation coverage of records management in its various manifestations (electronically or conventional). Most are just

guidelines with respect to managing communication channels. But I do hereby accede that there is a need to have a specific policy speaking to social media records where procedures are outlined on how to handle discrete yet related records from multiple sources, specific roles and responsibilities as well as records scheduling, and defining how records ownership may be claimed". Participant DIT1 said he was not aware of the existence of any documented social media policy in Botswana but revealed that the media bill that was intended for use in regulating the media was passed by Parliament, but is yet to be implemented. As it was evident from these participants' responses that the government of Botswana did not have a social media policy, this study proposes a framework for governance of liquid communication which requires that social media policies and strategies be put in place to guide the government to abide by the legal and business requirements.

#### **4.3.1.2 Requirements for social media entries for legal and business purposes**

On the question of whether there have been any events where social media entries were required for legal or other business purposes as well as how the entries were retrieved and provided during the request, participant BGCIS1 answered that there have been court cases that related to social media posts in Botswana but none that related to the Botswana government's social media pages. Participant BGCIS2 said all social media requests were initiated by government communication, especially the Office of the President's public relations office. Participants BGCIS3, BGCIS4, BGCIS5 answered that they never experienced situations where social media entries were required either for legal or other business purposes.

#### **4.3.1.3 Management of social media entries as records**

The participants were also asked whether the records management policy was revised to address social media and whether the social media entries were considered or managed as records. All the PROs and participants BGCIS1, BGCIS2, BGCIS3, BGCIS4 and BGCIS5 answered that records management was not revised to address social media records, as social media entries were not managed as records by the Botswana government. Having said that, participant BGCIS 2 said that social media entries were only requested during their performance reviews as evidence of their performance. When answering this question, participants BGCIS1 said "In fact, we don't do anything that concerns records management as the BGCIS. Rather, we obtain content from ministries which are already archived as we deal

with online information. The information is going to sit online and we will later decide to either keep it permanently or delete it. These are electronic records, but they are not managed in that way. For example, we have HE's speech, that's a powerful record, that everybody is taking note of it. We manage it by pinning it at the top to give it more penetration and more engagement. We don't sponsor our posts, but our content is always available. You can look for content that was published in 2014 online, it is either you find the content archived or it has fallen down in the timeline. You can use the search bars to search the content that was published before. We have another BWgovernment Google drive to archive our content. The information is not well organised but you can always use it. We also have a shared folder in the server called BGCIS Communications sitting at Office of the President (OP) domain and mapped to all ministries, where ministries can create and read their own content, but can't see content of other ministries while us at BGCIS can read all content; read and write, as well as delete content."

#### **4.3.1.4 Risks associated with the use of social media**

The PROs were asked to outline the risks associated with the use of social media tools by the government of Botswana and measures in place to assess and address them. Although participant BGCIS4 answered that she was not aware of any risks, the other participants, BGCIS1, BGCIS2, BGCIS3 and BGCIS5, outlined the following risks:

- Duplication of BWgovernment pages, which caused confusion among the government's social media followers. Such pages are continuously reported and removed with the help of Facebook Southern Africa.
- The spread of fake information with regard to vacancies, press releases and other statements purported to be from the government.
- Leakage of confidential information and re-sharing of redundant information are the major risks associated with the use of social media.
- Freedom of speech allowed by social media platforms where people can say whatever they want at any given time.
- The danger of posting incorrect information that may go viral.
- Lack of social media policy. This danger was explained by BGCIS5 who said, "Another risk is that we do not have a social media policy. I am learning about it now, I realise the importance of having some sort of a policy. Previously, I didn't see social media

entries as records. Now I can see they are actually records, because what I post today can be compared to what I post ten months down the line, as there is a need for continuity.”

#### **4.4 Usage of social media by the Botswana government**

The second objective of this study sought to assess the extent to which liquid communication was generated by the Botswana government. The objective was informed by the ARMA principle of availability which requires that an organisation shall maintain its information assets in a manner that ensures their timely, efficient and accurate retrieval (ARMA 2017). The themes that arose out of this main theme include adoption and social media usage and its impact on information governance in Botswana, social media services provision and the extent of its usage by the Botswana government, factors influencing the adoption of social media, social media platforms used by the Botswana government, social media penetration, the purpose of social media usage by the Botswana government, challenges faced in the use of social media and the results of social media adoption as well as the results of social media adoption.

##### **4.4.1 Extent of usage of social media to generate liquid communication**

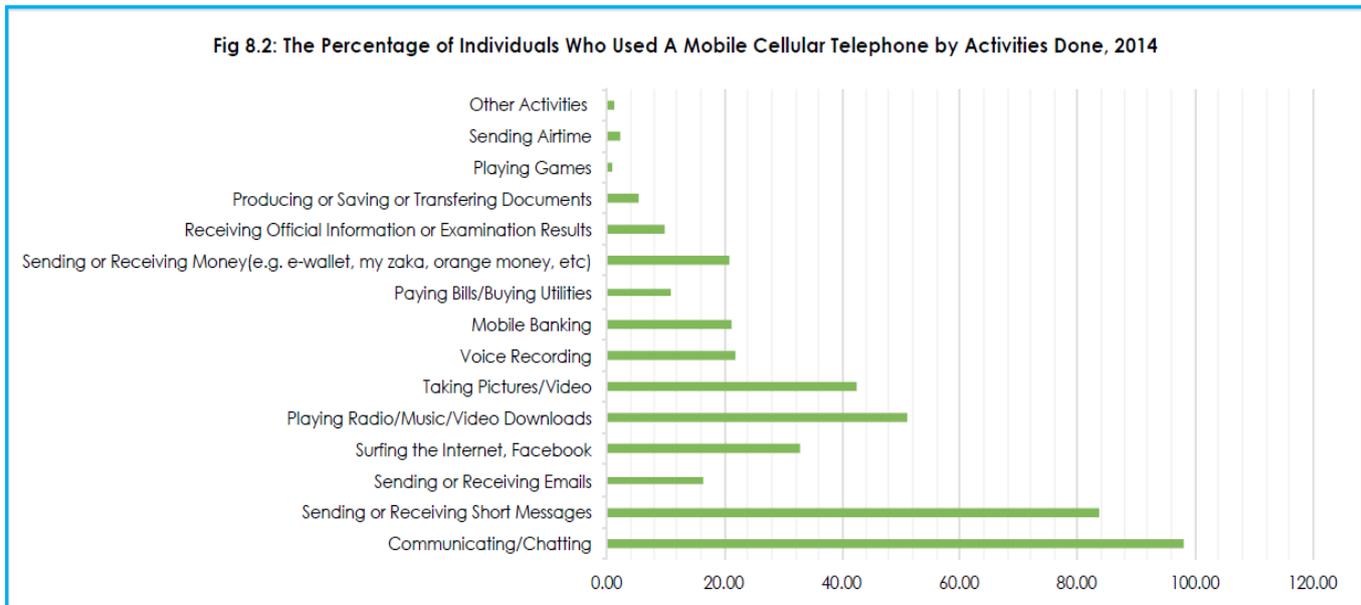
The participants were asked to comment on the extent of usage of social media by the Botswana government and services provided in order to determine the necessity for governance of liquid communication to ensure timely, efficient and accurate retrieval when needed for business processes. The responses from the participants indicated that the government communication is coordinated by the BGCIS office through the e-communication function. The government of Botswana joined Facebook and Twitter in June 2011, YouTube on 1 November 2013, while the Instagram account was created during data collection for this study on 3 November 2017. The BGCIS said the government’s social media pages are used to advertise job vacancies from various government ministries, notices or directives as well other government human resources announcements. According to the BGCIS, the PROs update the government’s social media pages as and when there is new information that the government needs to send out to the public. Moreover, the government’s social media pages are used to address new enquiries by members of the public. BGIS5 said, “Social media basically provides information. Information dissemination is the most prominent right now. It’s the cheapest, easiest and quickest way of sending information to a large group of people.”

In assessing the extent of the use of social media by the Botswana government and thereby generating liquid communication, this study found that the government of Botswana was actively using social media platforms. The BGCIS is mandated to coordinate government communication and manages the government social media pages through its e-communication function. The government of Botswana joined Facebook and Twitter in 2011, YouTube in 2013 and Instagram in 2017. These accounts are used primarily to disseminate government information, advertise government business and address citizen enquiries. Table 4.2 illustrates the number of followers on the most-used Botswana government social media pages by July 2018.

**Table 4.2 Botswana government social media pages following by 26 July 2018**

<b>Social Media Platform</b>	<b>Year Joined</b>	<b>Followers/Likes/Subscribers</b>
Facebook	2011	387,816K
Twitter	2011	173.6K
YouTube	2013	1,084 k
Instagram	2017	1,308k

Statistics demonstrate that in 2014, 85.3% of the population of 10 years and older in Botswana used a mobile cellular telephone and, of these individuals, 32.8% used them to surf the internet, especially Facebook. This use was fourth after activities of communicating/chatting, sending or receiving short messages and playing radio/music and video download (Statistics Botswana 2017). Figure 4.1 illustrates the percentage of individuals' mobile cellular telephone use by activity.



**Figure 4.1: Percentages of individuals’ mobile cellular telephone, 2014 (Statistics Botswana: 2017)**

#### **4.4.2 Impact of social media on information governance in Botswana**

The participants were asked to comment on the adoption and use of social media in Botswana and the impact it has had on information governance in the country. In answering this question, participant BNARS1 acknowledged first that social media has transformed and challenged service providers to use it for service provision, information dissemination/distribution, creating awareness and obtaining feedback from customers. The same participant indicated that social media “promote networking, both socially and corporately, as it has been used for advocacy and general mobilisation on given subject themes.” The participant did not talk about the impact of social media on information governance in Botswana, probably because social media entries were not managed as records in the Botswana government. However, participant BNARS2 said, “The adoption of social media in Botswana resulted in risks such as unauthorised access to information, information leaking or disclosing of information prematurely before decisions are made; thus unfair decision-making and unfair governance”. Participant BNARS2 also said social media is a breeding ground for corrupt practices where people can use information accessed through these platforms to steal money from other people’s bank accounts. The same participant said that the “... adoption of social media necessitated the need for the Botswana government to review information governance

structures, policies, procedures and processes.” This is despite the fact that the study found through other questions that there were no measures in place for liquid communication governance generated through social media in government. Participant BNARS3 said that social media generates massive amounts of information as well as instant communication with clients, thereby improving customer service, and free marketing of products and services provided by government agencies. The participant could not go further to explain how these massive amounts of information generated through social media impacted on information governance in government. Notwithstanding the above, participant BNARS5 was more expressive in answering the question by firstly explaining that “Information governance is a holistic approach to managing corporate information by implementing processes, roles, controls and metrics that treat information as a valuable business asset.” The same participant said, “Social media has brought a new dimension to information governance as we see the process and procedures being overlooked and control measures being taken to task.” To answer the same question, participant BOCRA1 firstly gave background information on information governance in Botswana indicating that “Botswana adopted the use of short messaging services (SMS) from the time of the introduction mobile telephony in 1998. At the time, only second-generation networks (2G networks) existed with capability for voice calls and SMSs only. As networks changed to 3G, and lately 4G, and social media came on board, Botswana adopted it as an additional feature or an improvement on SMS”. To bring the case down to the impact social media had on information governance in the country, participant BOCRA1 said, “This year, Botswana was ranked the country with the highest number of Facebook users in sub-Saharan Africa. The phenomenal growth of Facebook and other social media platforms has made information governance complex. The rate of fake news is high, as social media has no gatekeepers and quality checks available under conventional media environment. Literally everyone with access to social media platforms can generate and spread news or stories. On another note, social media has shortened turnaround times for information dissemination as it is real time. Delays in providing required information often lead to fake news. Also, social media often clashes with cultural values. For instance, people break news, including news about deaths, before close relatives are properly informed in accordance with cultural norms and values”. According to participant DIT1, social media in Botswana is used for business advertisement, social interaction, news dissemination and political campaigns. The participant could not elaborate on how liquid communication generated through these activities on social media was governed.

#### **4.4.3 Factors which led to the adoption of social media**

As it was evident that the government of Botswana was using social media platforms extensively as revealed by the study participants, this study sought to establish the factors that influenced the government of Botswana's decision to adopt or expand their social media efforts and whether there were any specific events that led to this adoption. This study revealed through the interviews with the study participants that the government of Botswana did not have documented and formalised factors which led the government to adopt social media, but the PROs as the administrators of the Botswana government's social media pages outlined the following as factors and events that led to the adoption of social media by governments:

- The efficiency and effectiveness of social media as a tool for reaching out to the public given that the Botswana mobile phone penetration was at more than 100% and Facebook provided an application (Facebook Zero) which facilitated access to accounts at no costs.
- The need to disseminate to the public government information on state events and disasters such as floods and earthquakes.
- The government adopted social media because it was easier and cheaper to reach the target audience, which is the public.
- An initiative to take government services to the people and to have a direct link with the nation.
- Instantaneous ability of social media to reach a large number of people.
- Effectiveness of social media to gather feedback on a certain topic.

To give an example of how the government is able to obtain feedback from the public through social media, BGSCIS5 said "At the end of 2016, the government had a deadline for people to have registered their land with the National Land Registration, Kwadisa Setsha, but the public gave us immense feedback on Facebook, requesting for an extension. Some people were overseas, some people did not know, some did not have documents, one reason or another. Because of that information gathered on Facebook, a report was compiled and it was adopted by the Ministry of Land Management to extend the land registration."

#### **4.4.4 Social media platforms used by the Botswana government**

In establishing the extent of the use of social media by the government of Botswana, the participants of this study were asked to state the social media platform used by the Botswana government and the purposes of adopting each platform. All the participants acknowledged that the Botswana government uses online platforms classified as:

- Multimedia sharing – YouTube; used a repository platform for government video footage such as the State of the Nation Address, the Budget Speech and other government events. Videos are captured and later uploaded on YouTube.
- Microblogging – Twitter; the government has a Twitter account as @BWgovernment used to disseminate government information.
- Social networks; the government of Botswana has a Facebook page, and Instagram has also been added recently to the number of social media networks adopted and used by the Botswana government.
- SMS notification system; used to send reminders to citizens on different services like the expiry date of their national identity documents (IDs) or their driver's licences.
- BW portal; a repository platform of content which is currently dysfunctional. Efforts were made in the past to transform it, but without success. The platform used the content management system of Epi-Server, which is a commercial source. The government planned to operate the portal on SharePoint. The transformation was unsuccessful because there was transformation that had to be done on the content to be compatible and to operate well with the open source without tempering with its functionality.

#### **4.4.5 Penetration level of government social media pages**

Through content analysis as one of the data collection methods, this study also assessed the Botswana government's social media pages to determine the level of penetration of these pages. Figures 4.2, 4.3 and 4.4 illustrate the Botswana government's Facebook page overview insights, people reached and interaction with the public.

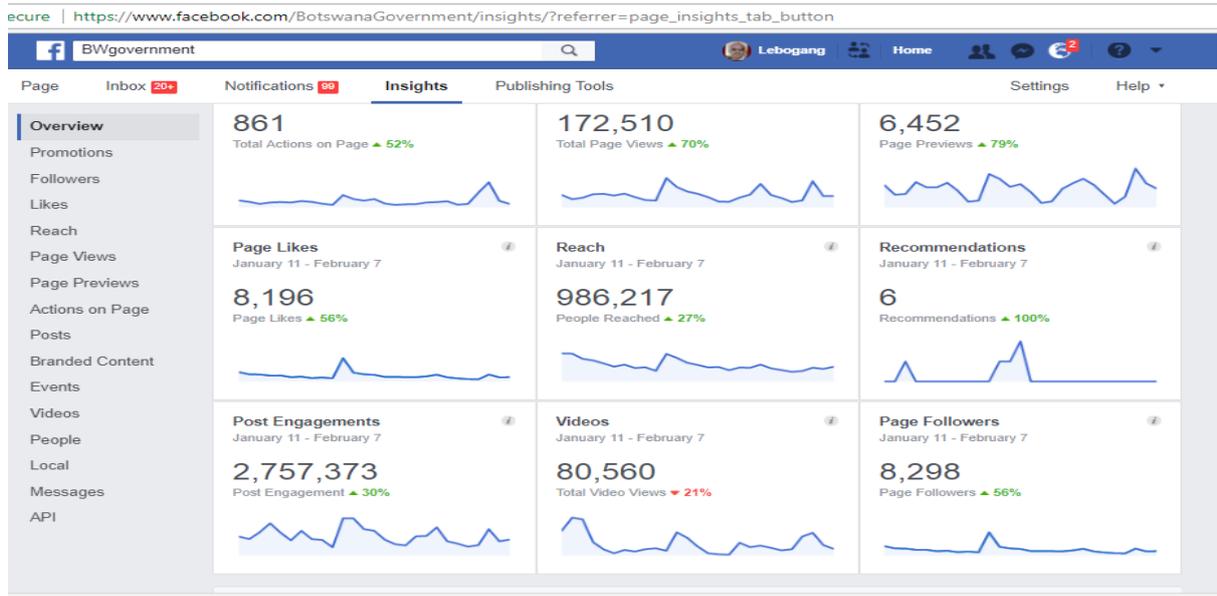


Figure 4.2: BWgovernment page overview insights, January 2018

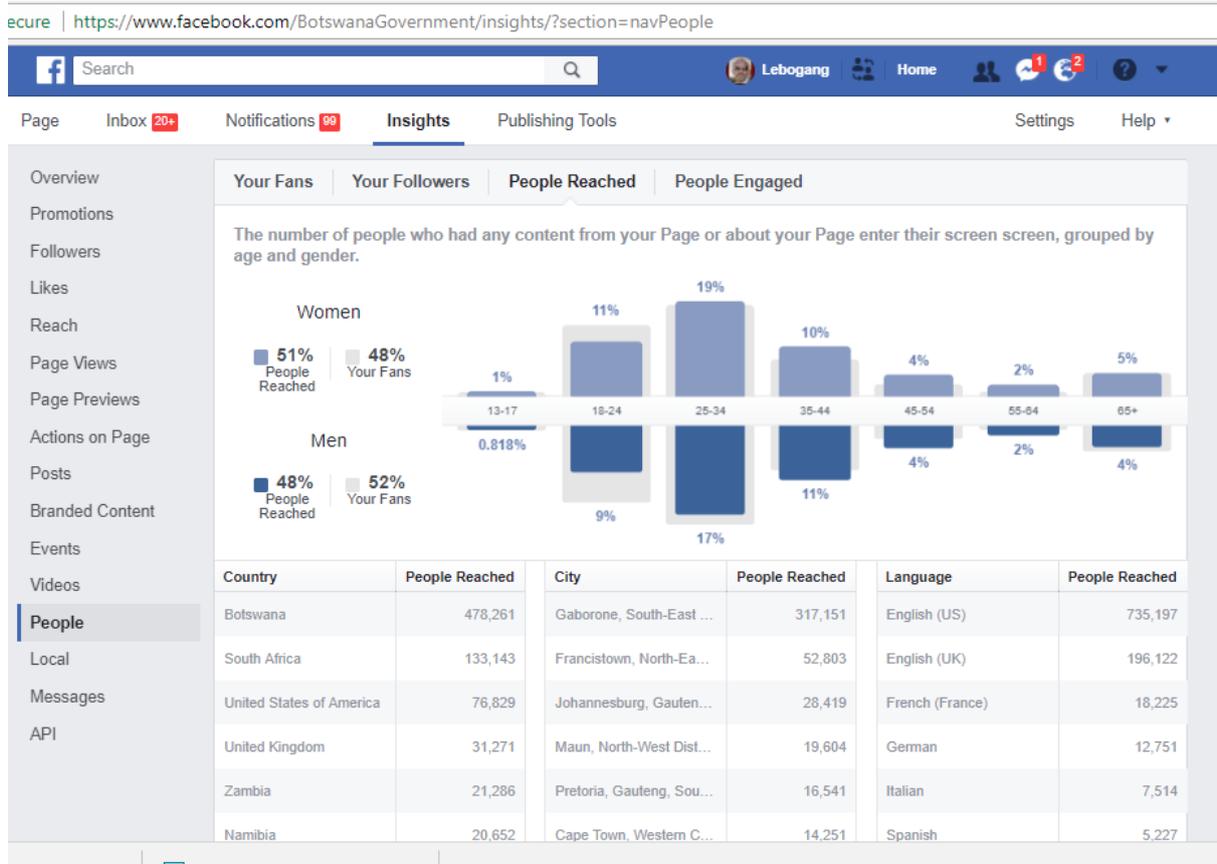
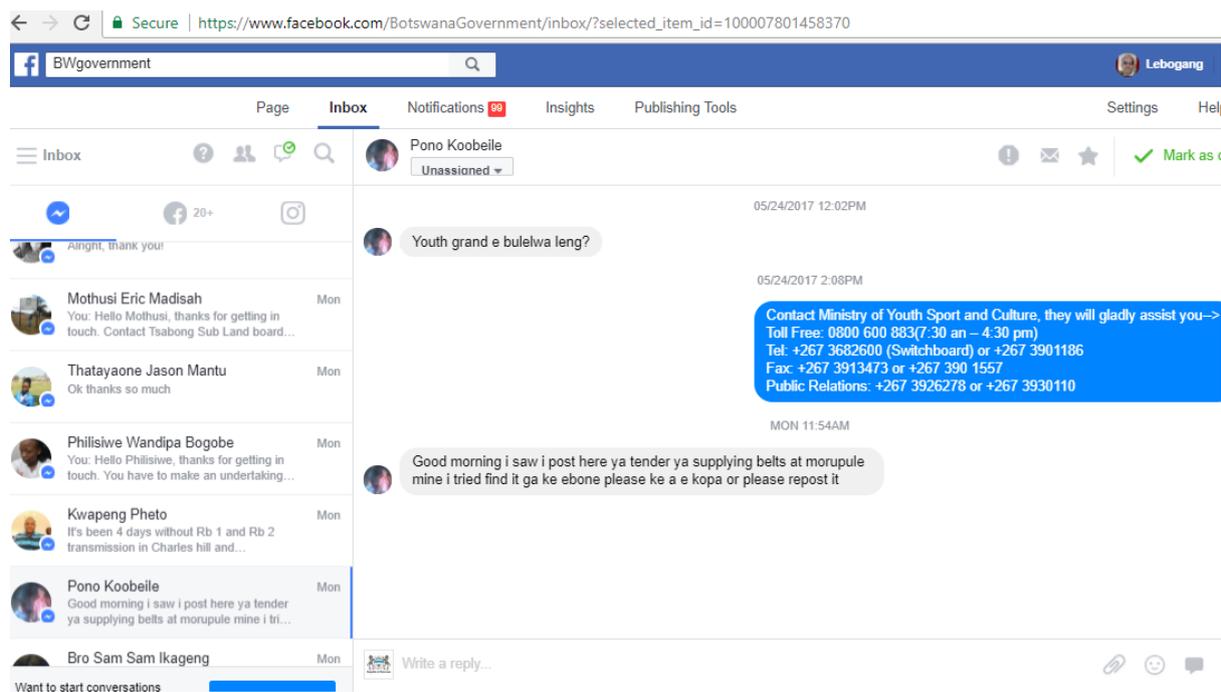


Figure 4.3: BWgovernment people reached, January 2018



**Figure 4.4: Communications with the public on Facebook Messenger, January 2018**

#### **4.4.6 Purposes, mandate and goals of the government of Botswana’s social media efforts**

The participants were asked to state the purposes, mandate and goals of the government of Botswana’s social media efforts. Participant BGCIS said the Government of Botswana adopted the use of social media to ensure that the government is visible and accessible, to provide the public with accurate, timely, clear and relevant information about government policies, programmes, services and initiatives, as well as to deliver a prompt, courteous and responsive service that is sensitive to the needs of citizens. When answering this question, participant BGCIS2 cited that the Botswana government Facebook page was adopted mainly to improve information sharing with the public, expedite responses to certain requests, alert the nation of disasters and health issues and to keep in touch with the youth and the rest of the public. The purposes and goals outlined by the other participants were corroborated by participant BGCIS4 who said that the government adopted social media to connect with Botswana, to disseminate government policies to the nation and to share current events. The same participant added that the other reason was to try to eliminate false news which may be shared on social media about the government. To add to that, participant BGCIS5 also indicated that the purpose of government social media efforts is to send out accurate information. The government had discovered that social media afforded many people a platform to discuss different issues and if somebody does

not have an account, much distorted information may be shared about them. As a result, the government social media platforms are used to communicate the position and policies of government as well as its activities and programmes.

#### **4.4.7 Challenges in social media usage**

This study also sought to find out whether any challenges were experienced by the government in the adoption and use of social media. While participants BGCIS3 and BGCIS4 said they experienced no challenges in the use of social media platforms, participant BGCIS1 cited shortage of resources such as transportation to cover events as one of the challenges. This challenge was mitigated by ensuring that PROs obtain Central Transport Office (CTO) licences, which would enable them to drive government vehicles to cover events in the absence of the people employed as drivers in the government. The participant revealed that inadequate bandwidth of service providers affected their performance as, sometimes, the connection breaks in the middle of covering events. Shortage of equipment such as cameras was also cited as a challenge since the PROs operate from different office locations and, for the sake of efficiency, could not share some of the equipment. The same participant said their office, that is the BGCIS, was severely understaffed. To explain this challenge, participant BGCIS1 said, “We have various platforms such Twitter, Instagram, Facebook and YouTube, and it is not easy to manage all platforms at one event with only two officers, especially at national events like Independence Day celebrations and BDF day. To compensate for this, we are still exploring the use of drones to improve coverage”. Participant BGCIS2 also lamented about the lack of resources such as cameras and adequate bandwidth. To add to that, the participant said a lack of specifically trained personnel in social media writing and graphics was also a challenge for them. Participant BGCIS5 was also of the same opinion, saying that the PROs who manage the government social pages are not technocrats on the specific functions of government. The participant revealed that some government functions such as surveys, planning and engineering have technicalities attached to them and use a large amount of technical language. In cases where the public makes enquiries through the government’s social media pages, the page administrators have to always contact the technocrats for answers to respond adequately to the enquiries. Participant BGCIS5 continued to explain that the problem with such kind of arrangement was that sometimes, as administrators, they did not receive information from the technocrats as quickly as they would have wanted. The nature of social media is that information should be accessed fast and easily, otherwise processes would defeat

the whole purpose of using social media. Despite the participant indicating that the government is currently trying to come up with a mechanism that works quicker and faster such that they respond quickly enough to the needs of our customers, the same participant also said they experience technical set-up challenges where other people are able to post on their wall. This requires of them to remove undesirable posts such as advertisements on a regular basis. Without explaining further, the participant revealed that the issue of hackers is also a challenge that comes with the use of social media even though the government social media pages have not yet specifically experienced such a challenge.

Archivists, records managers and the information management officers were also asked to comment on the challenges experienced with the use of social media by the government. Participant BNARS1 said, normally, there were issues of unauthorised access to information, information distortion and loss of information without specifically talking about the Botswana government's social media accounts. Participants BNARS2 and BNARS3 said they were not aware of challenges experienced by the government in its adoption and use of social media. Nonetheless, participant BNARS3 said the fact that there was no coherent strategy or social media policy for the use of social media platforms was a challenge on its own. This resulted in inconsistency in engaging the customers as well as issues of unpredictable presence of engagement. Moreover, the adoption and use of social media by the government meant that more time is demanded from officers. When explaining the challenge of a lack of a specific policy, participant BNARS3 said, "It makes it difficult to use the conventional records scheduling approach as the difference between content and records in social media has not been defined. The transitory nature of content in the social media platforms has to be acknowledged and differentiated from permanent records on the same platform, this is not the case; therefore, capturing what ought to be permanent records eludes government's watch". According to participant BNARS4, the challenge in the use of social media in Botswana is that there is currently no access to information legislation in the country, which means that there are limits to the amount of information that could be revealed to the public. The same participant also cited difficult or somewhat rude and uncooperating audiences as a challenge. To add to these challenges, participant BNARS5 said issues of violation of processes and procedures as well as security where information is shared without consent of the owner were challenges in the adoption and use of social media by the government. In answering the question on challenges experienced in the adoption and use of social media by the government, participant BOCRA1 had this to say: "Issues of fake news, erosion of cultural values, expectations for speedy

response times, demand for high speed networks to carry videos and live streaming are the challenges faced by government in the use of social media.” When answering the same question, participant DIT1 also cited the issue of fake social media accounts and publishing communications which are unmannerly as some of the challenges in the use of social media by the government. The same participant pointed out that the use of social media in government has a negative impact on productivity, as some employees spend more time engaging on Facebook and YouTube than focusing on the main job they were hired to do. Participant DIT1 went on to say the use of social media has a negative impact on privacy of information as people reveal personal information on social media sites which can make them vulnerable to crimes like identity theft and stalking. These challenges cited by the study participants are an indication that a framework to govern liquid communication generated through the use of social media is required by the Botswana government as a matter of urgency. Therefore, this study proposes such a framework to mitigate the challenges experienced with the adoption of social media by the Botswana government.

#### **4.4.8 Effectiveness of social media initiatives**

The participants were asked to state in general the results of the adoption of social media and what they considered the most effective social media initiative to date. In responding to the results of social media adoption, participant BGCIS indicated that social media platforms provide an online opportunity for customers to interact directly with the government. Moreover, it provides convenience to the customers by reaching them directly on their social accounts with information on government policies and programmes and it gives them the opportunity to reach out to more people than would be possible with traditional media. The participant indicated that Facebook has been the most effective social media initiative by the Botswana government. According to participant BGCIS2, the results were pleasing as people do respond to the government’s social media updates, which enabled the government to be aware of their preferences and identify their needs as they provided valuable feedback on the different government services. In giving an example regarding government events, it was clear that when posted on social media, it returned good results for the government. Participant BGCIS2 mentioned some of these posts to be: “Live videos of major state events by the President and Parliament, former President Masire’s funeral, the Budget Speech, the State of the Nation Address, the inauguration of the president, YouTube use for Botswana television news and other programmes such as Talking Point (a television programme initiated by the

Botswana Cabinet)”. On the other hand, participant BGCIS3 said that, through social media, a large number of people were reached within a short period of time and customers were able to access information quickly and easily. While participant BGCIS4 said she was not aware of the results, participant BGCIS5 confirmed that the results of social media use by government were clearly visible. The participant said, “Like I said, remember I spoke about the changing of a deadline due to feedback we got from people’s responses. We are also seeing some results because, for instance, people now understand the processes and procedures followed in government. Therefore, more people are able to access our services much better because they have more information now. In the past, there used to be many misconceptions and rumours all over, thereby affecting the image of ministries. Now the image of government has somehow improved.”

#### **4.5 The integrity of liquid communication**

The third objective of this study was to examine measures put in place to maintain the authenticity of liquid communication generated through the use of social media by the Botswana government. The objective was informed by the ARMA principles of integrity and protection. The principle of integrity demands that the information generated by or managed for the organisation should have a reasonable and suitable guarantee of authenticity and reliability, while the principle of protection requires that there should be a reasonable level of protection of records and information that are private, confidential, privileged, secret, classified, essential to business continuity, or that otherwise require protection. Themes that emerged under this objective were processes undertaken for introducing new records-generating systems for social media records, precautionary measures put in place to ensure that social media records remain authentic, audit of integrity controls of social media records, frequency of incidents of inappropriate information disclosure as well as goals related to social media records protection.

##### **4.5.1 Processes for introducing new record-generating systems**

The participants were asked to talk about the process they undertake to introduce new records-generating systems for social media records; that is, capturing their metadata and meeting other

authenticity requirements, including chain of custody. In response to this question, Participant BGCIS1 said, “Our junior officers, assistant principal relations officers, develop content that is both news and live coverage. They prepare draft content and schedule it to give the upper level responsibilities to approve it before it can be published.” This is despite the fact that participants BGCIS2 and BGCIS4 said no processes had been undertaken for introducing new record-generating systems for social media records. Participant BGCIS3 said that as PROs, they only post information that has already been authorised by the directors of different government departments. This is also corroborated by participant BGIS5 who said, “The information we post comes from government departments. The process is mostly at the departments. That is where various departments initiate information, go through the PRO at the department, then the director before it comes to us, the PR department, to post. When it comes to us, we just post it, because it has already gone through the processes. This process helps us because the information has already been verified and vetted, we only can correct grammar or put the message in a catchy way”. The responses by the participants indicted that the processes for introducing new record-generating systems were weak, which calls for a governance framework for liquid communication as suggested by this study (See Figure 6.1). Through the proposed framework, the capturing and authenticating of liquid communication generated through the use of social media can be ensured.

#### **4.5.2 The authenticity measures for liquid communication**

When asked what were the precautionary measures put in place to ensure that social media records remain authentic, participant BGCIS1 said there are two levels of back-end user rights (these are the author, the lower level responsibility and the super administrator) and the upper level responsibility. The author level is done by junior officers such as APROs or interns. The super administrator level is done by senior officers who create users on the government social media pages and assign levels of responsibilities. In response to the same question, participant BGCIS2 said the question is not applicable in their case as they follow a communications process that only PROs prepare the information used to update government social media pages. Participant BGCIS3 said only two officers were appointed to be administrators as a precautionary measure for security purposes. It was important to note participant BGIS5’s response who said the government of Botswana had not reached that level where precautionary measures could be put in place to ensure that social media records remain authentic, since they were not taken as records in the first place. It is therefore the aim of this study to propose a

framework for governance of liquid communication generated through the use of social media to ensure that precautionary measures are in place for the continued authenticity of liquid communication.

#### **4.5.3 Audit of integrity controls for liquid communication**

The participants were asked whether the integrity controls of social media records were audited reliably and systematically and to comment on the process of the audit. This question included how often a social media content audit was prepared and asked the participants to state any continuous improvements that were normally made. In response, participant BGCIS1 said, “There are two publishing workflows. The configuration matrix is such that junior level prepares and loads draft content. This level cannot publish, as the publishing rights do not allow him or her to transact at that level. In the matrix, there is the super administrator who creates users and allocates rights in the publishing workflow. Everyone in the publishing workflow changes their passwords periodically by following the Facebook security password creation policy.” Participants BGCIS2, BGCIS3 and BGCIS4 said no audits were done for integrity controls of social media in the Botswana government. According to participant BGIS5, as the PROs, they often met and discussed the audit reports from government social media pages mostly “for impact on the number of people reached, popularity of the posts, what went wrong, why it was not popular, what can we do to make it popular”. This answer was evidently not relating to the audit of integrity controls of social media records, which was understandable, as the PROs had indicated in this study that they used social media for publicity purposes and were not concerned with governing liquid communication.

#### **4.5.4 Value on the protection of liquid communication by executives**

As information governance requires that records that are essential to business continuity or classified be protected, this study asked the participant to comment on the value placed on the protection of social media records by executives and/or senior management. While participants BGCIS2, BGCIS3 and BGCIS4 said there was no protection and if there was, they were not aware of it, participant BGCIS1 said, “The executives put a lot of value on our social media efforts. All cabinet members, parliamentarians and accounting officers, such as permanent secretaries, rely on BWgovernment for information, especially during official events at Parliament such as the State of the Nation Address and the Budget Speech. The President also

depends on our social platforms for communication. He shares our posts and sometimes we stream live for him”. On the other hand, participant BGIS5 said, “The executive or senior management puts a lot of emphasis on social media because they understand the impact of social media. They understand that we are in the advent and era of social media. They are very supportive and encouraging.” The value attributed to be placed on social media by the government as per the responses of BGIS1 and BGIS5 related to the use of social media generally and not to social media records.

#### **4.5.5 Frequency of incidents of inappropriate information disclosure or loss**

The participants were also asked to comment on any incidents they ever had where information was disclosed or lost inappropriately or inadvertently and how often they had experienced such situations. All the PROs and participants BGCIS1, BGCIS2, BGCIS3, BGCIS4 and BGIS5 said they have not experienced any situation where information was disclosed or lost inappropriately, with participant BGCIS2 adding that if ever there were such cases, inappropriate information was posted by clients and not by the government’s social media pages’ administrators. Incidents of inappropriate information disclosure or loss are inevitable with the use of social media platforms and, as a result, this study proposed a framework for governance of liquid communication which takes into account the assigning of roles and responsibilities to authorised personnel to avoid the frequency of such incidents.

#### **4.5.6 Goals related to liquid communication protection**

The participants were asked to comment on whether the government of Botswana have defined specific goals related to social media records protection, whether the initial goals related to protection have met and whether they have established processes to ensure that records protection goals are reviewed and revised routinely. All the participants who were asked this question (participants BGCIS1, BGCIS2, BGCIS3, BGCIS4 and BGIS5) said the government of Botswana has not set goals related to social media protection. As such, the question of whether the goals related to social media records protection were being met and reviewed and revised routinely could not be answered. Participant BGCIS1 further added that the BWgovernment Facebook page subscribes to Facebook social standards.

#### **4.5.7 Access controls responsibilities**

The participants were asked to comment on the responsibilities to assign access controls. Although participants BGCIS2, BGCIS3 and BGCIS4 said the permanent secretary in the Office of the President was the one who assigned access controls, participants BGCIS1 and BGCIS5 indicated that it was the PROs who did the job. In explaining this, participants BGCIS5 said, “The super administrator, who is the most senior, in our case is the principal public relations officer, creates users on government social media pages and assigns access controls for security purposes.”

#### **4.6 Retention and disposition of liquid communication**

The fourth objective of this study was to investigate how liquid communication generated through social media in Botswana was retained and disposed of. The objective was informed by the ARMA principles of retention and disposition (ARMA 2017). The principle of retention requires that an organisation shall maintain its records and information for an appropriate time, taking into account its legal, regulatory, fiscal, operational and historical requirements, while the principle of dispositions requires that an organisation shall provide secure and appropriate disposition of records and information that are no longer required to be maintained by applicable laws and the organisation’s policies. In line with these principles, the following themes were revealed under this objective: documentation of the processes used to guide the transfer or disposition of social media records in Botswana, the role of BNARS in the development of guidelines for the retention and disposition of social media records, records retention schedule or policy as well as the extent to which BNARS was involved in arriving at decisions related to the retention and disposition of social media records.

##### **4.6.1 Processes to guide the transfer or disposition of liquid communication**

The PROs, who were the administrators of government social media pages, were asked to state whether there was any documentation of the processes used to guide the transfer or disposition of social media records in the government of Botswana. If yes, whether there was a process for suspending disposition in the event of investigation or litigation. All the participants revealed that the government of Botswana did not have documented processes to guide the transfer or disposition of social media records. As a consequence of this, processes for suspending

disposition in the event of investigation could not be established in this study. To enlighten this situation, BGCIS5 said, “There are no documented processes as we never took social media content as records.”

#### **4.6.2 The role of BNARS in the development of policy/ guidelines for the retention and disposition of liquid communication**

BNARS has the legal mandate in Botswana to control all public sector records. With this understanding, the participants were asked about the role played by BNARS in the development of such documentation. If they did not know, they were asked to state the reasons behind its non-involvement. All five participants said BNARS was not involved in guiding them on the development of policies/ guidelines for the retention and disposition of social media records. None of these participants could explain the reasons why that was the case.

#### **4.6.3 The role of BNARS in liquid communication retention and disposition decisions**

This study also sought to establish the extent of involvement of BNARS in decisions that relate to the retention and disposition of social media records. In agreement, all the participants were asked this question and they all said BNARS was not at all involved in arriving at decisions related to the retention and disposition of social media records.

#### **4.7 Roles and responsibilities for the governance of liquid communication**

The fifth objective of this study was to establish the roles and responsibilities for the governance of liquid communication generated through social media in Botswana. The objective was informed by the ARMA principle of accountability, which pronounces that to ensure information governance, a senior executive or a person of comparable authority shall oversee the information governance programme and delegate responsibility for records and information management to appropriate individuals. The organisation adopts policies and procedures to guide personnel and ensure that the programme can be audited. The following themes were revealed under this objective: source of content for the Botswana government’s social media pages; responsibilities in monitoring and removal of social media content; social media metrics; the role of other business unit members contributing to social media; staffing on social media efforts; the role of records, information and communication regulating bodies

in Botswana in the governance of liquid communication; the existence of infrastructure and resources for the management of the Botswana government's social media efforts as well as recommendations for social media adoption by governments.

#### **4.7.1 Administration of the Botswana government's social media accounts**

The first question under the roles and responsibilities for the governance of liquid communication was to find out whether the government of Botswana's social media accounts were maintained by the government of Botswana or outsourced, as well as the source of the content. In answering this question, the participants of this study indicated that the government of Botswana's social media accounts are maintained by the government of Botswana through the BGCIS office, although content to update the accounts comes from various sources outlined as:

- **Parliamentary business:** The government PROs closely monitor the Botswana government's business to source content. They do follow-ups and obtain responses to questions and motions every time Parliament sits.
- **Updates from ministries and government agencies:** The PROs receive event coverage from different government ministries and departments and they do the uploading of the government social media pages. Other updates from government ministries and departments include their press releases and job vacancies. With regard to job vacancies, participant BGCIS1 gave an example by saying, "I currently have a vacancy announcement from the Botswana Defence Force (BDF), looking for officer cadets who are going to train somewhere in Europe. I'm scheduled to post it tomorrow at 0600 hrs. Usually, those ones attract a level of reach of about 200 000 and engagement of hundreds of thousands on our social media platforms".
- **Government advertising:** All advertising of government is done on the Botswana government's media platforms. This includes adverts on government tender projects.
- **National Development Projects:** Government's national development highlights such as the Economic Stimulus Package (ESP) and other matters relating to national development agenda.
- **News from events and the Botswana Press Agency (BOPA):** This involves live coverage on social media of governments' regular events such as the "Nyeletso Lehuma" event.

- Footage from the government television station, Botswana Television (BTV): The PROs from the BGCIS office regularly receives footage captured by BTV to post on the government’s social media platforms as it is a government-owned station serving the same clientele.
- Live coverage of events by staff: Although ministries and departments send their events coverage to the PROs to be posted on government social media accounts, sometimes the PROs from the BGCIS office physically attend these events to cover them live.
- Government Portal: The government portal serves as a repository platform of content to upload to the government’s social media accounts. To explain how the portal was used, participant BGCIS1 said, “The content in the portal is in two versions. We have the dynamic content, which has timelines such as news and events. We use this information to update our social media pages, as the information expires when it just sits on the portal. There is also static content on the portal which does not have timelines, such as guidelines on how to renew a passport. We get that information and post it on the government’s social media accounts”.

In justifying the reason for government not to outsource the administration of its social media pages, participant BGCIS1 said, “It is important for the government’s social media pages to be maintained by us because of the impact and the power of information. It must be closely guarded. We can only outsource the technical functionalities, but not the information. As a result, the information management is our duty”. The proposed governance framework for liquid communication generated through social media by this study advocates for clearly spelt out roles and responsibilities on the adopted social media policy (See Figure 6,1).

#### **4.7.2 Responsibility to monitor and remove content**

The participants were asked to comment on the responsibilities to monitor the government of Botswana’s social media accounts as well as the responsibilities on content removal if any. From the interviews undertaken with the PROs, this study revealed that the responsibilities for monitoring the Botswana government’s social media pages rested with the super administrator, who was a person with upper level responsibilities. When explaining how this works, participant BGCIS1 said the administrators of the Botswana government’s social media pages constantly receive requests from institutions and private individuals in the country to have their

materials published on the government's social media platforms. As a result, there is need to regulate such requests as the government's social media pages are intended to publish government business. The same participant also indicated that the great number of requests are as a result of the popularity of the government of Botswana's social media pages, especially Facebook. The other responsibility of the super administrators was moderation, where certain names are banned or deleted from accessing the government's social media pages. The super administrator is also responsible for responding to inbox messages that needed to be responded to. Apart from those instances on content removal, participant BGCIS2 revealed that, sometimes, content is removed when it is deemed incorrect by the line ministries. Participant BGIS5 gave a scenario where it was necessary to remove content previously posted on the Botswana government's pages. The participant said, "We have removed a post once which was a vacancy advertisement for Tawana Land Board. What happened was that the Land Board had been looking for an internship officer at the estate office using traditional means of recruitment, which went on for a period of six months without getting any responses. I then decided to post the advertisement on Facebook. Within five minutes, somebody had already responded. Thereafter, there was an influx of people responding to the advertisement, which led us to remove the post because we have already found the person we wanted".

#### **4.7.3 Liquid communication metrics**

The participants were asked whether the government of Botswana collected any metrics on their social media platforms to state the types of information that were gleaned from this process, as well as how it was used. In answering this question, the participants answered in the affirmative that they collected online analytics from the government of Botswana's social media pages. The participants had the following to say:

- "Analytics statistics form part of the government's communication report to various authorities."
- "The government collects Google analytics and Facebook analytics."
- "We use the metrics to monitor the impact of the government social media pages."
- "We monitor the coverage of the posts. You will find that people share popular posts on social media, so we also monitor that."

#### 4.7.4 Staffing on social media efforts

The participants were asked to state the number of people that work solely on social media efforts, their titles, responsibilities and chain of reporting. The interviews conducted with the PROs revealed that all the social media platforms of the government of Botswana were managed by PROs with job titles of chief public relations officer (CPRO), principal public relations officer (PPRO), senior public relations officer (SPRO), to the lowest level of assistant public relations officer (APRO). The participants indicated that, sometimes, internship officers are used to boost the team. The chain of reporting was according to the seniority levels where the PPRO reports to the CPRO and the SPRO reports to the PPRO. Levels of responsibilities are classified into two (2) levels as follows:

- The author's (lower level) responsibilities: performed by junior officers such as APRO or internship officers. They develop content (news and live coverage), prepare a draft and schedule it to be given to the higher level to approve it. They publish approved content on the government social media pages; for example, when a statement comes from a ministry, or a news item from BOPA, the junior officers simply migrate content as a finished product. They also draft responses to enquiries as social media serves as an online contact centre where people send messages, enquiries about government service. The officers are required to escalate unresolved enquiries and do follow-ups. They are also responsible for taking pictures during events coverage. The senior officers guide officers at this level on photography and afford them the opportunity to take pictures and prepare narratives to go with the pictures for immediate uploads; for example, during National Honour Awards. Apart from that, they develop graphics, for example for a banner to promote a campaign, such as the safe male circumcision or the 60 days of road safety.
- The super administrator's (upper level) responsibilities: mostly performed by senior officers such as the PPRO. This level creates users on government social media pages. It is common to have more than one administrator on one account. The super administrator assigns levels of responsibilities and extracts footage for YouTube from BTV. One needs to have technical skills for this job. It is a technical duty to transact on BTV applications as it involves obtaining content and transforming it to file formats that are compatible with the social media platforms. The super administrators are

password custodians as they allocate user rights. They develop content for all social media platforms, link content in social media, monitor performance of links, meaning they ensure that the government pages are not linked with dead links. Moreover, this level of responsibilities edit social media content, do data quality campaigns, transform content into formats that can be posted without losing data and for easy access by customers, as sometimes content comes in spreadsheet format or in columns. They filter content, monitor content on other related platforms and respond to inbox messages.

#### **4.7.5 The role of other business unit members contributing to social media**

The participants were asked about the role of other business unit members in contributing to social media and, if they do, whether there was an approval process for social media initiatives. All the participants were asked this question and in response, they said all government ministries and departments contributed content to be posted on the Botswana government's social media platforms through their events coverage and press releases. All the submissions are made by PROs from the respective ministries and there has to be a signed version and an MS Word format electronic version ready for publication. It was a requirement that all submissions be routed through the public relations office and sent to the government communication's office e-mail, *bgcis@gov.bw*, for consideration to be published. The government ministries and departments are supported by their respective PROs on the correct formats and writing for social media.

#### **4.7.6 Business unit members consulted on social media initiatives**

The participants were asked whether other business unit members/ government departments were consulted regarding social media initiatives (e.g. IT application analysts, records managers, BNARS, DIT, e-government office, BOCRA). The participants had different responses as follows:

- “The information technology office was consulted.”
- “The Department of Information and Technology and e-government offices were consulted. The e-government office was coerced, encouraged by government communication to consider administering the BW Facebook.”
- “Only the public relations office was consulted on this initiative.”

- “I am not aware of any other business units that were consulted.”
- “Social media has been a pure public relations initiative.”

#### **4.7.8 The role of records, BNARS/ BOCRA/ DIT in the governance of liquid communication**

This study also included three of the purposively selected Botswana government departments which are relevant stakeholders in the role of information management in the country, being the DIT, BNARS and the BOCRA, to collect data to answer some of the research questions of this study. Their role and mandate on the governance of liquid communication generated through the use of social media by the Botswana government are explored below.

#### **4.7.9 The mandate of BNARS/ BOCRA/ DIT on information governance in Botswana**

The participants from each of the stakeholder departments were asked to state their mandate as far as information governance was concerned in Botswana. According to participants BNARS1 and BNARS5, BNARS is responsible for the management of government information throughout their life cycle, that is, both digital and paper records, and makes them accessible to users such as researchers, government employees and the general public. It also provides records management guidance on an advisory basis to parastatals and private organisations. Moreover, according to participant BNARS2, the department was responsible for mapping out and defining recordkeeping processes for records from creation to preservation in the e-governance environment. Participant BNARS3 said the role of BNARS is defined in the NARS Act. The participant said, “It follows that such issues of guiding documents/ manuals on how to manage information are developed and implemented and regular monitoring is undertaken with particular reference to the public sector”. Participant BNARS4 indicated that she was not sure about the role of BNARS. Participant BOCRA1 said the BOCRA was a regulator of the communications sector in Botswana comprising broadcasting, internet, postal and telecommunications. The participant explained the mandate of the BOCRA by citing provisions from the BOCRA Act as follows:

“Section 54 (1) provides that:

‘a person who is engaged in the operation of a public telecommunications system or the provision of a telecommunications service, who otherwise than in the course of his or her duty, intentionally or negligently –

- (a) intercepts a message sent by means of that system or through that service;
- (b) discloses, to any person the contents of such message;
- (c) discloses, to any other person, information about a customer obtained in the course of performing his or her duty; or
- (d) uses any information obtained in the course of his or her duties about a customer for his or her own benefit, commits an offence’

Similarly, section 55 provides that

‘A person who sends –

- (a) by public telecommunications system, a message or other matter which is offensive or of an indecent, obscene or menacing character; or
- (b) by public telecommunications system, for the purpose of causing annoyance, inconvenience or anxiety to another person, a message which he or she knows to be false, or persistently makes use, for that purpose, of a public telecommunications system, commits an offence...’

Section 56 provides that

‘Any person who –

- (a) wilfully interferes with, hinders or impedes in any way the erection, alteration, maintenance or inspection of the telecommunications or broadcasting equipment;
- (b) without lawful excuse, by any means interferes with or obstructs the provision or operation of a telecommunications, broadcasting or postal service;
- (c) steals any telecommunications, broadcasting or postal equipment; or
- (d) wilfully and unlawfully damages or destroys any telecommunications, broadcasting or postal equipment, or does any act with intent to, or knowing that it is likely that such act will impair the usefulness or efficiency or prevent or impede the working of, any such equipment, commits an offence...’”

When asked to answer the same question, participant DIT1 said all the responsibilities for information governance rested with the BGCIS office. As it was not clear what roles and responsibilities these government agencies played in the governance of liquid communication generated through the use of social media by government, this study proposes a governance

framework where all stakeholders' roles would be spelt out to ensure that liquid communication is captured, preserved and accessed to meet legal requirements by government (See Figure 6.1).

#### **4.7.10 Role of BNARS/ BOCRA/ DIT on social media use by the Botswana government**

Participants were also asked about the role of their departments in the adoption and use of social media in the Botswana government. Although participant BNARS1 said BNARS has no mandate with regard to the adoption of social media by the Botswana government as it has no policy governing the use of social media, participant BNARS2 said, "BNARS has been playing a proactive role in the adoption and use of social media as its social media page was created almost two years ago." It is important to note that this answer by participant BNARS2 relates to BNARS's adoption and use of social media pages as an individual institution, but not as the regulator of public sector records. According to participant BNARS3, the role of BNARS in the adoption and use of social media goes as far as being the user or beneficiary of the good as presented by social media, thereby capitalising on the good brought about by social media platforms. The answer by participant BNARS3 also does not specifically talk to the adoption and use of social media by the Botswana government. This also goes for participant BNARS4 who said BNARS's role is the promotion of the national documentary heritage and interaction with clientele on how best to meet their needs. According to participant BNARS5, BNARS was responsible for bringing social media technologies to meet user needs. The same participant further revealed that, "BNARS, with a sole mandate to manage public sector records, has developed its own social media page on FB which, from time to time, does give a snapshot of events which happened in a particular month, or just which gives Botswana a hint by providing pictures on its page. BNARS also plays a role in advising on what measures need to be put in place to manage records in this era of social media. There is also the Electronic Records (Evidence) Act of 2014 which BNARS uses to guide ministries and departments in managing electronic records".

The assertion that BNARS plays a role in advising on what measures need to be put in place to manage records goes against the revelation in interviews with the PROs that BNARS was not at all involved in their social media initiatives. In answering the question of roles, participant BOCRA1 said "The BOCRA facilitates development and growth of the communications sector. The authority provides frequencies that are required by licensees to provide services. Every time a new service or technology enters the market, specific frequencies may be required

from the BOCRA. The BOCRA also makes licence conditions that drive development of the sector. For example, when the BOCRA issues frequencies, it may attach a condition that says that the licensee is required to provide 3G services in all settlements with more than 10 000 inhabitants within a particular time frame. The BOCRA also has a mandate to listen to and resolve complaints from stakeholders and consumers, including complaints about the use of the internet”. To answer the same question, participant DIT1 said the DIT is mandated, among other things, to provide internet connection for both the government community and the schools community. The main goal with providing this service is to promote effective service delivery within the government sector and educational excellence in schools by facilitating resource sharing, innovation and communication, which lead to a learned and informed nation. The DIT also provides guidelines and procedures for browsing the internet by which government officers should abide.

#### **4.8 A framework for governance of liquid communication**

The last objective of this study sought to propose a framework for the governance of liquid communication generated through the use of social media by government. This study utilised the ARMA Generally Accepted Recordkeeping Principles (ARMA 2017) to examine the governance of liquid communication generated through the use of social media by the Botswana government. As explained in the previous sections per the objectives of this study, the eight principles (accountability, transparency, integrity, protection, compliance, availability, retention and disposition) explain the requirements for information governance for all types of organisations, including government. The researcher in this study asked the participants to comment on the ideal information governance programme in order to be included in the solution of the research problem of this study. Participant BGCIS1 recommended that the unit that manages the government social media pages must be well resourced and the personnel well capacitated to create and operate social media pages. Participant BGCIS2 outlined the following: “It needs the setting up of a team that is diverse with good social media training and internal appreciation of social media efforts, has the existence of social media strategy, a human resource policy on the use of social media, policies that clearly support and enhance social media across different departments (synergize the various laws) and has a proper budget for the social media team”. To add to that, participant BGCIS3 said that particular attention should be given to the security of information. In answering the same question, participant BGIS5 had this to say: “Well, I think I have learnt a

lot through your questions. I think in the future, we need to look into social media content as some form of record, because indeed these are records. I have never looked at it from that point of view”. According to BNARS1, there is a need to adopt metadata standards (controlled vocabulary for classification and indexing) to establish control over the capturing of liquid information to ensure correct and proper use and interpretation of information by its owners and users. Metadata standards will enable the searching for and retrieval of information by relevant users. Participant BNARS2 emphasised the need to prioritise passing legislation that supports authentic and reliable liquid communication. Participant BNARS3 said there was a need to have a social media policy to regulate the flow of information. The participant further explained that, “Above all, for permanent records to be identified and captured in the ever-changing environments, a policy and collaboration with other stakeholders would be needed, which may help in identifying and capturing what is regarded as permanent records on the social media platforms. Social media platforms should not merely be regarded as channels of disseminating information, but as platforms that have the potential to generate official permanent records that should be managed within the existing frameworks – legislation and regulations”. The above can be achieved in part by developing policies that are not media specific, because the technology keeps on changing. The records retention and disposal schedules for social media records as well as issues of curation and transfer should be reviewed and BNARS must develop guidance on managing social media records. Moreover, there is a need to train government staff, especially records managers and archivists, in the proper management of social media records, identification, and capturing and preservation of tools available (the driving factor should be content, context and structure) for records management purposes. Participant BNARS4 was of the view that benchmarking with other institutions that have adopted the use of social media may help with lessons learnt. According to participant BNARS5, “Social media is very hard to control, thus measures must be put in place well in advance before being used. Also, there has to be infrastructure like the increase in bandwidth to disseminate the information. There have to be measures of the procedures and processes that are being followed to the letter. Security of information must be given priority and there also has to be an office that directly deals with social media in terms of monitoring and disseminating information to social media”. Participant BOCRA1 acknowledged that even though social media platforms in themselves are a welcome development in that they have enhanced the way people communicate, they require full-time, dedicated resources to ensure proper management. Dedicated human and technical resources are necessary to ensure

immediate and prompt responses. Apart from that, guidelines on usage and community standards are also necessary.

#### **4.9 Summary**

This chapter presented the findings of this study obtained through a qualitative research approach whereby data were collected through the use of questionnaires, interviews and documentary review and analysed through themes as per the research objectives of this study. The focus of the study was on the legislative, policy and transparency requirements in relation to the governance of liquid communication generated through the use of social media in the Botswana government, the extent of usage of social media by the Botswana government, the integrity of liquid communication generated through the use of social media in the Botswana government, the disposition of liquid communication generated through social media in Botswana as well as the roles and responsibilities for the management of liquid communication generated through the use of social media in Botswana. The key issues raised in this chapter are as follows:

- There is a weak legislative and policy framework for the governance of liquid communication in Botswana.
- The government of Botswana extensively uses social media to communicate with the public in the process of generating liquid communication.
- There is a lack of framework for the governance of liquid communication generated through the use of social media; hence, measures in place to ensure the integrity of liquid communication are weak.
- Since the government of Botswana does not view social media as generating any information that needs to be governed, there are no measures or processes in place to ensure the retention and disposition of liquid communication.
- The roles and responsibilities for the management of liquid communication in the Botswana government are fragmented and disjointed where the PROs as the administrators of the government social media pages worked in isolation from the records managers.
- The government agencies expected to regulate information flow for the government are not involved in ensuring the governance of liquid communication generated through social media by the Botswana government.

The next chapter interprets and discusses the findings as presented in Chapter Four.

## **CHAPTER FIVE**

### **INTERPRETATION AND DISCUSSIONS OF THE FINDINGS**

#### **5.1 Introduction**

The previous chapter presented the study findings. This chapter provides an interpretation and discussion of the findings of this study. Interpretation of results in qualitative research means that the researcher steps back and forms some larger meaning about the phenomenon based on personal views, comparisons with past studies or both (Creswell 2012:622). The interpretation and discussions of the findings are presented according to the research objectives which were organised into themes drawn from the research objectives of this study, as follows:

- The legislative and policy framework
- Extent of usage of social media by the Botswana government
- Integrity of liquid communication generated through social media
- Retention and disposition of liquid communication
- Roles and responsibilities for the management of liquid communication
- Proposed framework for the governance of liquid communication

#### **5.2 The legislative and policy framework for the governance of liquid communication**

The first objective of this study, which was informed by the ARMA principle of compliance, sought to determine the legislative and policy framework for the governance of liquid communication by the Botswana government. The legislative and policy framework for the governance of liquid communication concerns legislation and policies that deal with information or electronic records management in general. Legal requirements and demands are very important when making decisions about capturing and preserving social media records (Franks & Smallwood 2014:264-268). There are situations where records generated on cloud computing environments such as social media have been requested as evidence in courts of law (Bathurst 2016; Goh 2014; Madhava 2011; Murphy & Fontecilla 2013). Madhava (2011:34) alludes that the courts are catching up with the deluge of social media and judges are displaying less patience with organisations that have not properly managed their social media archives.

The interpretation and discussions of the legislative, policy and transparency requirements for the governance of liquid communication generated through the use of social media by the Botswana government are presented as per the following sub-themes:

- Legislative and policy framework
- Management of social media entries as records
- Requirements for social media entries for legal or other business purposes
- The retrieval of social media entries
- Risks associated with the use of social media tools by the Botswana government

### **5.2.1 Legislative and policy framework**

Public sector records management is subject to provisions in laws and regulations. BNARS, as a government department mandated by the NARS Act to manage all records created in government agencies, should also ensure good governance of liquid communications generated through the use of social media. There is still a need for Botswana to make the necessary changes in the country's current legislation. Until 2014, there was no legislative framework to facilitate and enable the provision of e-services in Botswana, whereby laws prohibited rather than promoted the use of ICT to provide services (Keetshabe 2015). As an example, Keetshabe (2015) points out that the legislation did not provide for recognition of electronic signatures, authenticity of electronic documents and admissibility of electronic evidence as records in the courts. Most laws have records management implications, but the main ones required, especially in the context of social media usage, such as data protection and privacy laws, are yet to be adopted. There is also a need to amend existing legislation such as the NARS Act of 1978, the Cybercrime and Computer Related Crimes Act of 2007, the Electronic Communications and Transactions Act of 2014 and the Electronic Records (Evidence) Act of 2004, to accommodate the governance of liquid communication generated through social media. As one of the concerns for government agencies using social media is the possibility of termination of service and the loss of information that the agency is obligated to maintain, agencies, along with legal counsel and information technology professionals, should read and negotiate, where applicable, the "terms of service" agreement to incorporate language for the proper retention and disposition of records in accordance with the country's legislation (Ohio Electronic Records Committee 2014:4).

This study undertook a documentary review of the existing legislation and policies expected to support the governance of liquid communication in Botswana and interviewed the participants of the study on this. The documentary review and the interview results indicated that the legal and policy framework for the governance of liquid communication can be said to be both strong and weak. The framework is strong in the sense that the government has made efforts to put in place laws and regulations to manage information and digital records in the country, such as the NARS Act (as amended in 2007), the Cybercrime and Computer Related Crimes Act (2007, 2010, 2017), the Electronic Records (Evidence) Act, and the Electronic Communications and Transaction Act. The policies available include the National Information and Communications Technology Policy (2007) and others, such as the Computer Equipment Acceptable Use Policy (2001), the Anti-virus and Malware Policy (2001), the Removable Media Policy (2010), the Internet Access Policy (2010), the Password Policy (2006) and the Web-content Publishing Framework (2009). The weakness was found in that these laws are not comprehensive enough to deal with records generated in the cloud environment such as liquid communication. Interpretation of the legal instruments reviewed by this study and cited by the participants was as follows:

#### **5.2.1.1 National Archives and Records Services Act of 1978 (as amended in 2007)**

Although this act recognises the existence of digital records through its accommodative definition of a record, the act fell short in providing for their management, unlike the National Archives of South Africa Act of 1996, which includes guidance on the management of electronic public records (Government of South Africa 1996). This was also evidenced by failure of the participants to cite this particular act when asked to state the legislative framework that supports governance of liquid communication in the country. This seems to be the challenge in most African countries, as Marutha (2016:28) observes that the scope of records and archival laws covered the basic model of paper-based records archiving, as well as the archive responsibilities which have proved to be a challenge to many archival institutions when it comes to managing electronic records. The NARS Act has been found to be weak as far as providing guidance to advance the records and archives management agenda in the country is concerned (Ngoepe & Saurombe 2016; Ngoepe & Keakopa 2011; Mnjama 2010; Sebina 2006).

### **5.2.1.2 Cybercrime and Computer Related Crimes Act (2007, 2010, 2017)**

Until 2007, Botswana did not have legislation on cybercrime. This act, meant to combat cybercrime and computer-related crimes, to repress criminal activities perpetrated through computer systems and to facilitate the collection of electronic evidence, has been subjected to many amendments by government since it came into force in 2007 to keep up with the ever-increasing complex crimes committed in cyberspace (Daily News 2017). To an extent, the governance of liquid communication generated through the use of social media is recognised in this act in its definition of what is termed “traffic data”, which means any data that relate to communication by means of a computer or computer system, generated by a computer or computer system that is part of the chain of communication, and that show the communication’s origin, destination, route, time, date, size, duration, or type of underlying service. The act further regulates this “traffic data”, which include liquid communication generated through social media, for it to be retrievable and presented before a court of law as evidence. Section 24 of this act provides that:

- A police officer or any person authorised by the Commissioner or by the Director, in writing, may apply to a judicial officer, ex parte, for an order-
  - a) for the collection or recording of traffic data, in real time, associated with specified communications transmitted by means of any computer or computer system; or
  - b) compelling a service provider, within its technical capabilities, to-
    - i. effect such collection and recording referred to in subparagraph (a); or
    - ii. assist the Police, to effect such collection and recording.

The Cybercrime and Computer Related Crimes Bill of 2017, which superseded the 2010 and 2007 versions, was passed by the Parliament of Botswana to committee stage in April 2018 after its presentation by the Minister of Defence, Justice and Security, Mr Shaw Kgathi. This act, with its proposed amendments, will be fundamentally used to regulate the use of social media in Botswana as indicated by legislators’ discussions. During the discussions, the legislators lamented a growing trend in the abuse of computers and social media in recent years (Sejabosigo 2018). Comments on the Bill by the legislators that were particularly concerned with the use of social media included:

- The law would be used to protect the public from defamation, especially through social media.
- The law would punish people who post pictures of road accident victims on social media; people had suffered abuse through social media.
- The Botswana Police Service should have a unit dedicated to monitoring crimes committed through social media.
- People who post obscene things on social media are destroying the values and moral fabric of the nation and there was a call for them to be punished.
- The law would help to close a gap in cyberspace where the peddling of wrong information had become common.
- The misuse of technology such as social media could lead to bad things like character assassination and civil unrest (Sejabosigo 2018).

### **5.2.1.3 Electronic Records (Evidence) Act of 2014**

Through a documentary review and responses from the participants, this study found that this act supports the governance of liquid communication generated through the use of social media by the Botswana government as it provides for the admissibility of electronic records as evidence in legal proceedings and authentication of electronic records. This almost new act in the Botswana ICT framework defines electronic records as data that can be read and that are recorded or stored on any medium in or by a computer system or other similar device, which includes a display, print out or other output of that data. Through its regulations, the Electronic Records (Evidence) Regulations of 2016, the act provides for the authentication and auditing of electronic records systems to provide for authentic records for admissibility at legal proceedings, which aligns well with the ARMA (2017) principle of integrity. This principle requires that a formalised process should be in place for acquiring or developing new systems, including requirements for capturing the metadata required for the life-cycle management of records in the system (Smallwood 2014:31). Through authenticating the systems and processes that generated the records, the Electronic Records (Evidence) Regulations of 2016 under this act certify that the records integrity, reliability and trustworthiness are confirmed by ensuring that a record was created by a competent authority according to established processes (Smallwood 2014:31). With regard to liquid communication generated through social media, Murphy and Fontecilla (2013:22) argue that the methods of authentication include presenting

a witness with personal knowledge of the information (they wrote it, they received it, or they copied it), searching the computer itself to see if it was used to post or create the information, or attempting to obtain the information in question from the actual social media company that maintained the information in the ordinary course of their business.

#### **5.2.1.4 Electronic Communications and Transaction Act of 2014**

This act is meant to provide for the facilitation and regulation of electronic communications and transactions as well as, specifically, for electronic commerce, electronic signatures and other matters connected to that. Although some of the participants mentioned this act as supporting liquid communication generated through the use of social media by the Botswana government, a review of this act indicates that it is mainly concerned with consumer protection, electronic transactions and commercial communications, and not with records generated in cloud environments such as liquid communications. Nonetheless, sections 9 and 10 of this act regulate the requirements for the retention of information and requirements for production of documents of information, respectively. The act is also concerned with electronic communication which it defines as information generated, communicated, processed, sent, received, recorded, stored or displayed by electronic means. Keetshabe (2015) summarises the purposes of this act as it was meant to:

- enable legal recognition and validity of electronic commercial transactions conducted internally and externally
- enable recognition, promotion and implementation of information technologies which facilitate electronic commerce
- enable electronic transactions to be recognised in the same manner as paper-based transactions
- enable the promotion of a legal framework to support electronic commercial practices, including the formation and conclusion of legal contracts through electronic means
- enable the promotion and adoption of information technologies in relation to electronic transactions
- give electronic signatures the legal equivalence to the handwritten signature
- promote a technology-neutral legal framework for the creation of e-signatures

- give legal recognition to certificates created or issued locally or externally
- provide functional equivalence of electronic information to written information such that certain legal requirements for information retention and presentation, or information admissible as evidence are recognised, regardless of form
- promote uniformity of legislation and support commercial practices with legal coverage.

#### **5.2.1.5 National Information and Communications Technology Policy**

The National Information and Communications Technology Policy serves as a roadmap for Botswana that will drive social, economic, cultural and political transformation through the effective use of ICT (Government of Botswana 2007b). The formalisation of policies forms a crucial part of information governance, which tallies with the ARMA (2017) principle of transparency. Smallwood (2014:31) posits that policies are broad guidelines for the operation of the organisation and provide a basic guide for action that prescribes the boundaries within which business activities are to take place. Through the national ICT policy, the government of Botswana commits to provide an enabling environment for online services. Two principles from this policy can be seen that relate to liquid communication generated through the use of social media by government, which are:

- **Connectivity laws and policies:** the government recognises the need for a review of legislation in Botswana and identifies actions to be taken to amend laws and introduce structures that will enable a secure and trusted legal environment which adequately supports and protects increased levels of electronic interaction.
- **Government online:** the government pledges to simplify access and service delivery by developing a world-class e-government portal. The portal will be designed around the needs of client groups, making the organisational structure of government more transparent to citizens and business. The portal will incorporate a number of client-specific gateways for citizens, businesses, public servants and visitors. E-government represents a radically new way for government to interact with its constituents, clients and partners. It extends the “reach” of government and provides everyone with access to information and services from virtually any location and at any time. It also enables users to

access services from their homes or offices via the internet and government services will also be available online from community access centres, kiosks placed in shopping centres and strategically placed terminals located in government offices.

Responses from the participants did not indicate much reference to the national ICT policy in giving guidance for the governance of liquid communication generated through social media by the Botswana government. For a policy like this to be effective, it must not be only formalised but there is also a need to see its integration into business processes (Smallwood 2014:31).

#### **5.2.1.6 Other policies**

Although this study found that the Botswana government currently does not have a specific social media policy to guide in the governance of liquid communication generated through the use of social media, there are other policies that govern internet use in government. These policies mostly resided under the DIT. This study found that these policies existed in name as their implementation was not ensured across government. These policies include:

- Computer Equipment Acceptable Use Policy (2001)
- Anti-virus and Malware Policy (2001)
- Removable Media Policy (2010)
- Internet Access Policy (2010)
- Password Policy (2006)
- Web-content Publishing Framework (2009)

As observed by Bertot et al (2012:33), although the current policy environment addresses many issues of privacy, security, accuracy and internet use in its broad sense, much of the policy relates to the use of social media before the use of social media. As a result, many of the existing policies do not adequately address the governance of liquid communication generated through the use of social media by the Botswana government. This study found that the government has not yet finalised the policy called the Botswana Government Communication Policy of 2017, which extensively covers the use of social media by government. Although this policy recognises the use of social media as one of the effective ways the government should fully utilise to communicate with the citizens, it did not go to the extent of covering the governance

of the resultant records. As an example, the United States of America Centre for Disease Control (2012) is one organisation which has social media policies for Twitter and Facebook. These policies require the establishment of a records management system to keep track of their Twitter and Facebook activities to comply with federal guidelines for records management and archiving. Organisations that have information governance in place according to the ARMA (2017) principle of compliance should comply with applicable laws, other binding authorities and the organisation's policies. The International Records Management Standard ISO 15489 (2016:8) requires that policies on the management of records, derived from business objectives and supported by business rules or procedures for managing records, should be developed, documented and implemented. The development of policies should be informed by an understanding of business context as well as requirements for records relevant to the scope of the policy (ISO 15489 2016:8).

### **5.2.2 Requirements for social media entries for legal and business purposes**

Social media entries have previously been required for legal or other business purposes as evidence. Social media evidence includes photographs, status updates, a person's location at a certain time and direct communications to or from a defendant's social media account (Murphy & Fontecilla 2013). Therefore, it is important for governments using social media to communicate with the citizens to ensure that the entries can be retrieved and provided when needed. This goes with the ARMA principle of availability which requires the organisation to maintain its information assets in a manner that ensures their timely, efficient and accurate retrieval (ARMA 2017). This task is crucial, as social media posts may serve the legal and compliance purposes because they include metadata and hyperlinks to content that must be preserved and produced during e-discovery (Franks & Smallwood 2014:264-254; Madhava 2011:33). In the digital environment, research agendas in the information management communities focus on authenticity as an integral value that must be protected over time and across technological change through digital preservation (Rogers 2015:2).

Although participants in this study indicated that they have not encountered a situation where their social media entries were required before the courts, some entries were retrieved for business purposes. During his address to the media, the Minister for Defence Justice and Security in Botswana, Mr Shaw Kgathi, pointed out that the amended Cyber-crime and Computer Related Crimes Act gave police officers and the Directorate on Corruption and

Economic Crime procedural powers to obtain the information from the computer and the traffic data from the service provider (Kgauthe 2017). It has been reported by Murphy and Fontecilla (2013) that in the United States of America, there were countless cases involving defendants who were arrested because of information, photos or admissions posted on social media sites. This was seen in a case where a Botswana journalist was charged with distributing obscene material to his more than 70 000 Facebook followers. The particulars of the offence were that between 6 January 2015 and 12 March 2015 in Gaborone, the person distributed obscene material to the public through a computer system. The Botswana Police Divisional Prosecutions Unit produced paper, colour photographs from the accused which the investigators printed out as evidence before the court (Serite 2015). Therefore, it is clear that it is important for the government of Botswana to govern liquid communication as it may be required before courts of law as evidence of business activities.

### **5.2.3 Management of social media entries as records**

The participants in this study revealed that social media entries were not considered or managed as records by the Botswana government. The records management policy, which could also cover the management of social media records, was non-existent at the BGCIS. Liquid communication generated through the use of social media by the Botswana government is evidence of government business and should be treated as such. The communication that goes on between the government and the citizens should be retained for reasons of accountability and transparency under records management requirements (Public Records Office Victoria 2013). Records management has been described as a field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records. These include processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records (ISO 15489-1, 2016). In this case, a record, regardless of form or structure, should possess the characteristics of authenticity, reliability, integrity and usability to be considered authoritative evidence of business events or transactions and to fully meet the requirements of the business (ISO 15489-1 2016). The literature indicates that other governments around the world that use social media to communicate with the citizens recognise the importance of managing social media records. Countries such as the United Kingdom, the United States of America, Canada and Australia have been at the forefront of issuing policies and guidelines to other government agencies on managing social media content.

Managing social media is an emerging topic that has not been consolidated around standards for capturing (NARA 2013:9). As liquid communication generated through the use of social media by the Botswana government grows rapidly in volume and intensity, failure to take action quickly will result in records management challenges and eventually in increased costs for the government (Iron Mountain 2012:2). The Public Records Office Victoria (2013) outlines the type of social media posts to be captured to include:

- The original post from the social media site
- Responses to the original post, if any
- Relevant posts identified when monitoring social media sites
- Content republished by the agency when the content has come from elsewhere

Despite the fact that the form of a digital object such as liquid communication may be neither fixed nor stable in the traditional sense as they exist in a fluid horizontal network where authorship and ownership may be difficult to determine and its diverse range may not conform to the definition of “record”, they still need to be maintained and preserved with their authenticity and reliability protected (Rogers 2014:8). Governments using social media may use their existing knowledge about preserving electronic records as a base to build a strategy for preserving social media records (Madhava 2011:34). The issue of the preservation of authentic digital records has been dealt with by the InterPARES Project which developed knowledge essential for the long-term preservation of authentic records created and/or maintained in digital form and which provided the basis for standards, policies, strategies and plans of action capable of ensuring the longevity of such material and the ability of its users to trust its authenticity (Rogers 2009:37).

#### **5.2.4 Risks associated with the use of social media**

The use of social media brings about challenges in managing and identifying records, protecting personal information and ensuring the security of information and systems by the government (United States Government Accountability Office 2011). This argument was corroborated by participants in this study which outlined a number of the risks associated with the use of social media tools by the government of Botswana. The most cited risks include issues of fake news, misinformation, security of information and the absence of a social media

policy. As argued by Duranti (2014), the nature of trust relationships on social media platforms is rife with risks and weaknesses in the management of the resultant record where these rapidly changing technologies bring authorship, ownership and jurisdiction into question (Duranti 2014). As a result, it becomes difficult to ensure the integrity of liquid communication where there are no measures in place, especially in this era of post-truth and fake news. In the post-truth and fake news era it has become easier to create and share information beyond the creator's control. The question now becomes how to maintain the authoritative role of records as evidence in such an environment. The GARP principle of integrity requires that the information assets generated by or managed for the organisation should have a reasonable guarantee of authenticity and reliability.

As much as social media platforms make the interactions of governments and the citizens easier, they also compromise people's privacy and anonymity due to a complex web of data collection and surveillance (Duranti & Rogers 2014:1). In the electronic records management environment, privacy is a concern as personal data are constantly being collected, stored and often distributed easily without the owner's knowledge or consent (Ngoepe, Mokoena & Ngulube 2010:42). In recent times, Mark Zuckerberg, the chairman and chief executive officer of Facebook, gave a testimony over the company's handling of user privacy at a hearing before the United States House of Representatives Committee on Energy and Commerce after the scandal of Cambridge Analytica. In this case, a Cambridge University researcher named Aleksandr Kogan was able to access and collect some information about tens of millions of people, which was later shared without their consent (Zuckerberg 2018). Even though Facebook promised to tighten its privacy policies, ensuring total privacy online has always proved to be difficult to achieve.

This study demonstrated that security of liquid communication generated through the use of social media by the Botswana government is compromised as there are no measures in place to govern it. In a study to investigate the impact made by social media on teams in the banking sector in South Africa, Yakobi (2016) found that the adoption of social media came with risks such as fraud and hacking of information. This study concluded that commercial bank branch managers should formulate and develop policies to guide employees in the use of social media. The vulnerability of liquid communication generated through the use of social media calls for governments to put strict security measures in place to safeguard their records. The InterPARES Trust (2016:6) has made great strides in developing case studies that analysed

citizen experience with government social media tools and use, with respect to issues of trust, including concepts of openness, transparency, accountability, and authenticity. The studies revealed that in the United States and Canada, significant care was taken to implement controls around account creation, access and content which promoted citizens' in the government's social media use (InterPARES 2016:6).

### **5.3 The extent of social media usage by the Botswana government**

The second objective of the study was to assess the extent of social media usage by the Botswana government. This objective was informed by the ARMA principle of availability, which requires that where there is information governance, an organisation shall maintain its information assets in a manner that ensures their timely, efficient and accurate retrieval (ARMA 2017). The use of social media to conduct government business requires that issues such as the disclosure of confidential information, unauthorised use of trademarks, unauthorised use of copyright-protected works, defamation issues, electronic discovery, dynamic information, human resources issues, securities, privacy and endorsements should be taken into consideration or else they impact negatively on the enjoyment of benefits of social media usage by both citizens and the government (Mosweu & Ngoepe 2018:65).

#### **5.3.1 Impact of social media on information governance in Botswana**

The use of social media platforms in Botswana has been reported to be high as a direct result of the government's ICT policy through which it attempts to give more people access to the internet (Sunday Standard reporter 2016; Batane 2013; Statistics Botswana 2017). The National Archives and Records Administration (2010) states that, social media platforms enable organisations to connect people to the government and to share information to support business processes that both create and manage content. The participants in this study revealed that although the exact date for the adoption of social media in Botswana as a country was not clear, the country adopted the use of SMSs from the time of the introduction of mobile telephony in 1998. During that time, only second-generation networks (2G networks) existed with a capability for voice calls and SMSs only. As networks changed to 3G and, lately, 4G and social media came on board, Botswana adopted it as an additional feature or an improvement on the SMS.

Notwithstanding the above, much had not been done by the government in terms of the governance of liquid communication generated through the use of social media, especially for the Botswana public sector, as revealed by the participants of this study. The participants in this study were in consensus that social media had been widely adopted in Botswana, both in the private and public sectors. The main themes that rose from this study as consequences of the adoption of social media platforms are that social media has:

- transformed and challenged service providers to utilise it for service provision
- improved information dissemination/ distribution
- improved customer service with its capacity to enable an instant communication with clients
- served as a free marketing platform of products and services provided by government entities
- served as a platform for creating awareness and receiving feedback from customers
- promoted networking both socially and corporately
- been used for advocacy and general mobilisation
- been used in Botswana for business advertisement, social interaction, news dissemination and political campaigns
- shortened turnaround times for information dissemination as it is real time.

The participants in this study also revealed that the use of social media has brought a new dimension to information governance as well-known processes and procedures are being overlooked and control measures are being taken to task. On the issue of the governance of liquid communication generated through the use of social media in the country, the participants in this study revealed the following concerns:

- There is continuous unauthorised access to information on social media.
- There is information leakage or premature disclosures of information before decision are made, resulting in unfair decision-making and unfair governance.
- Social media is a breeding ground for corrupt practices as people can use information accessed through social media to steal money from other people's bank accounts.
- The rate of fake news is high, as social media has no gatekeepers and quality checks available under the conventional media environment.
- Anyone with access to social media platforms can generate and spread false news or stories.

- Social media often clashes with cultural values as people break news, including news about deaths, before close relatives are properly informed in accordance with cultural norms and values in Botswana.

### **5.3.2 Factors which led to the adoption of social media**

Although governments around the world were reported by a survey of the Organisation for Economic Co-operation and Development (OECD) governments in 2014 to be actively using social media platforms, the use of social media by most of them was largely with a “laissez faire” and experimentation attitude (Mickoleit 2014:12). Only one quarter of the responding governments (7 out of 25) had a dedicated social media strategy. These countries were Australia, Austria, Belgium, Chile, Colombia, Korea and the Netherlands. Nevertheless, there were others like the United States where social media was an integral part of the government’s strategy to “engage and connect” and the United Kingdom where social media was deeply embedded in the government’s digital strategy (Mickoleit 2014:12). Not to be left behind, the Botswana government also started using social media platforms by 2014, although this study did not find any documented reasons for factors that influenced the government to adopt social media platforms. Guillamón, Ríos, Gesuele & Metallo (2016:460) argue that social media offers governments an opportunity to create transparency and accountability, and to increase citizens' opportunities to participate and collaborate in decision-making.

The participants in this study did not indicate any documented factors that led the Botswana government to adopt the use of social media platforms. As alluded to by Mickoleit (2014:12), the use of social media by the Botswana government started without much planning going into it. One of the participants in this study indicated that they just used social media as one of their marketing tools to be taken advantage of. Some of the factors that led to the Botswana government using social media platforms that rose from the participants’ responses included the following:

- Social media was viewed as an effective and efficient tool for reaching out to the public given that the Botswana mobile phone penetration was at more than 100%.
- Facebook provided an application (Facebook Zero) which facilitated access to accounts at no costs.
- The ability of Facebook to spread important messages such as on disasters in real time.

- It was easier and cheaper to reach the target audience.
- It was a strategy to take government services to the people and to have a direct link to the nation.
- It was also effective in gathering feedback.

### **5.3.3 Social media platforms used by the Botswana government**

Although social media includes social networking applications such as Facebook and Google+, microblogging services such as Twitter, blogs, wikis and media-sharing sites such as YouTube and Flickr, Facebook is the most commonly used in Botswana. During the Botswana 2014 general election, Facebook was particularly commonly used in the country as a mobilising tool (Masilo & Seabo 2015:118). A study by Mpoeleng, Totolo and Jibril (2015) on the perceptions of the usage of Web 2.0 technologies carried out among library staff of the University of Botswana also revealed that Facebook was more generally used than other platforms such as wikis, podcasts, Twitter, LinkedIn and blogs. The situation seems not to be different from other parts of the world as, according to Kallas (2018), Facebook users increased by 70 million active users monthly from 2.13 billion in December 2017 to 2.20 billion as at 31 March 2018. The rate of growth seems to continue at 20 million active users per month.

The participants in this study revealed the social media platforms used by the Botswana government and the purposes of adopting each platform as follows:

- Social networks: Facebook was the most popular as it had more followers than any other Botswana government social media platform. For example, an analysis of the Botswana government Facebook page (BWgovernment) indicated that the page's most engaged post ever by the time of data collection was a status update on the execution of an inmate on death row, Joseph Tselayarona, on February 2017. BWgovernment posted on 21 February 2018 that the post had reached 1.1 million (1,100,905) people, while generating 34,554 reactions, comments and shares. In terms of the 18,366 reactions received, 17,053 (92.9%) consisted of "Likes/Loves", 3.6% were "Sad", while just 2% expressed "Anger" at the announcement, with another 3.2% falling under the category of "Haha/Wow". The post had generated 11,309 comments, with 6,946 on posts and 4,363 on shares. In addition to Botswana, many of the comments came from South Africa and Namibia, followed by other countries. While views in the comments

section, which can be easily accessed, were mixed, a clear majority of domestic and regional commentators on the page expressed their support for the death penalty (BWgovernment page 2018). Figure 5.1 presents a recent screenshot of the Public Notice on Execution of a Death Row Inmate from the BWgovernment Facebook page.



**Figure 5.1: Screenshot of the Public Notice on execution of a death row inmate. (BWgovernment Facebook page July 2018)**

- Microblogging – Twitter: The government had a Twitter account as @BWgovernment, which mostly shared information as shared on their Facebook page BWgovernment. The official Botswana government Twitter page became famous in January 2018 after the President of the United States, Donald Trump’s, controversial comments about Haiti, El Salvador and unspecified African nations, one so-called “s\*\*\*hole country”. The page tuned the “s\*\*\*hole country” words to highlight Botswana’s country tourist hotspots using the hashtag #mywaterholecountry. Through this campaign, which was carried on both the government Twitter and Facebook pages, it was showcased what Botswana had to offer in terms of tourism (Buckley 2018).

- **Multimedia sharing:** YouTube was used as a repository platform for Botswana government video footage taken during important events such as the State of the Nation Address, the Budget Speech, government projects, some of the Botswana television programmes, general election processes, and so on. The use of YouTube was common when sharing video content. In this regard, it was observed by Goh (2014:57) that the creation, transmission and access of multimedia content in the cloud have become a pervasive global phenomenon.
- **SMS notification system:** The government of Botswana also used the SMS service to send reminders to citizens of different government services such as the expiry date of their identity documents or driver's licences. E-notifications started as a pilot project in 2012 as a partnership between the DIT and the Department of Road Transport and Safety to use SMSs to notify customers to renew their driver's licences. The service was meant to notify customers in a convenient, efficient and effective manner through a free SMS. The service was expected to be further expanded to other government ministries that are at the core of providing important services to the public (Ministry of Transport and Communication 2012).
- **Botswana Government Portal:** This is a crucial repository platform of content which was found to be dysfunctional at the time of the study. The platform had not been updated for the preceding five years. Nonetheless, the portal indicates that the government of Botswana strives to exploit all appropriate e-communication platforms to provide citizens with news and information in a timely manner. The portal also directs users to the Botswana government social media accounts of Facebook and Twitter.

#### **5.3.4 Penetration level of government social media pages**

Social media is different from other media in that it produces measurements the organisation can use to track their impact and the effectiveness of their tactics and strategies. Social media platforms such as Facebook, as an example, offer analytics in their "insights page" and Twitter has an "analytics" page. The information on these analytics pages is best used for guiding strategy and reporting impact purposes (United States Department of Defense 2016).

One of the metrics tracked in this study was the level of penetration of the Botswana government's Facebook page through insight into the number of people who had any contact with the BWgovernment Facebook page by age and gender. The statistics indicated that most of the people who interacted with the page were in the age bracket of 25-34 years (females at 19%, males at 17%). The next largest group of people was in the age bracket of 18-24 (11% female, 9% male) and those in the age bracket of 35-44 years (10% female, 11% male). As per these results, the Botswana government social media pages enable the government to reach out to the youth in the country. These age brackets form what constitutes the "youth", according to the Botswana Revised National Youth Policy (Ministry of Youth, Sport and Culture 2010:5). Botswana had been considered one of the countries that has a relatively youthful population with about 46.5% being youth during the 2011 population census (Statistics Botswana 2013).

In terms of the number of people reached by the country, statistics from the BWgovernment Facebook page indicated that most were from Botswana (478,261), followed by South Africa (133,143) and, for some reason, the United States of America (76,829) and the United Kingdom (31,271) came before other African countries. The page insights also indicated that the most people reached by city came from Gaborone (317,151), which was not surprising as the city's population was dominated by the youth aged between 15 and 39 who also constituted the working age group (Statistics Botswana 201:25). This also tallies with the above statistics which indicated that the youth interacted more with the BWgovernment Facebook page than people in other age brackets. The city with the second-most people reached in the country was Francistown (52,803), followed by Johannesburg (28,419), a South African City. Far below them was Maun (19,604) from the North West of Botswana.

### **5.3.5 Challenges in social media usage**

The use of social media comes with challenges pertaining to privacy, security of information, governance and policy issues (Franks 2010:32; CIO Council 2009:6; Bertot et al 2012:133; United States Government Accountability Office 2011; Duranti & Rogers 2014:9).

The participants outlined a number of challenges faced in the adoption and use of social media platforms by the Botswana government as follows:

- Shortage of resources such as transport and cameras to move around capturing government events in real time.
- Inadequate bandwidth of service providers, which leads to poor connections during coverage. Social media demands high-speed networks to carry videos and live streaming.
- Understaffing: The use of various platforms such as Twitter, Instagram, Facebook and YouTube requires sufficient staff to update all the platforms in real time and ensure that big events are adequately covered from start to finish.
- Lack of personnel specifically trained in social media writing and graphics.
- Hackers are a challenge as there is unauthorised access to information, information distortion and loss of information.
- Non-existence of a coherent strategy and specific social media records policies.
- Unavailability of relevant legislation such as the freedom of information legislation in Botswana, therefore, there are certain things that the public cannot be informed about.
- Proliferation of fake news and existence of fake social media accounts.
- Erosion of cultural values.

#### **5.4 The integrity of liquid communication**

The third objective of the study was to examine measures put in place to maintain the integrity of liquid communication generated through the use of social media by the Botswana government. This objective was informed by the ARMA principles of integrity and protection. According to this principle of integrity, the information generated by or managed for the organisation should have a reasonable and suitable guarantee of authenticity and reliability while the principle of protection requires that there should be a reasonable level of protection of records and information that are private, confidential, privileged, secret, classified, essential to business continuity, or that otherwise require protection. The International Records Management Standard ISO 15489-1 (2016) states that a record, regardless of form or structure, should possess the characteristics of authenticity, reliability, integrity and usability to be considered authoritative evidence of business events or transactions and to fully meet the requirements of the business. The integrity of records refers to record qualities as being reliable, authentic and accessible in that they are whole and without corruption (International Council on Archives 2016). The principle of integrity demands that the information generated by or

managed for the organisation should have a reasonable and suitable guarantee of authenticity and reliability, while the principle of protection requires that there should be a reasonable level of protection of records and information that are private, confidential, privileged, secret, classified, essential to business continuity, or that otherwise require protection (ARMA 2017).

The themes which emerged under this objective are discussed below as: processes undertaken for introducing new record-generating systems for social media records, precautionary measures put in place to ensure that social media records remain authentic, audit of integrity controls of social media records, frequency of incidents of inappropriate information disclosure as well as goals related to social media records protection. Since this study revealed that not much was done to manage liquid communication generated through the use of social media by the Botswana government, measures of ensuring the integrity of liquid communication were barely taken into consideration. This was revealed by the PROs interviewed in this study. This objective was solely addressed by PROs as the administrators of the Botswana government's social media pages.

#### **5.4.1 Processes for new record-generating systems**

As this study established that social media was used by the Botswana government mainly on a laissez faire and experimental basis, the study found there was not much the participants could say pertaining to the processes they undertake to introduce new records-generating systems for social media records, that is, capturing their metadata and meeting other authenticity requirements. The researcher had to do much explaining of these concepts to the participants. Although others acknowledged that no distinct processes were undertaken to introduce new record-generating systems for social media records, the PROs revealed that:

- the APROs were the ones who developed content, prepared draft content and scheduled it to give the upper level responsibilities to approve it before it can be published
- the PROs only posted information on social media after it has been verified, vetted and authorised by the government departments concerned.

Unfortunately, these processes were not formally documented for records integrity purposes. According the International Records Management Standard ISO 15489 (2016:6), records

systems comprise a number of elements that are combined so that identified records requirements can be met within a given business environment. Records systems should:

- a) apply records controls
- b) carry out processes for creating, capturing and managing records
- c) support the creation and maintenance of logical relationships between records content and metadata for records.

Franks (2013) posits that if there is a formal, defined process for introducing new records-generating systems and the capturing of their metadata as well as other authenticity requirements, the organisation's goals related to integrity would be met. The same author continues to state that, in that way, the organisation can consistently and confidentially demonstrate the accuracy and authenticity of its records. In addition to documenting such processes, Latham (2014:6) argues that as social media platforms are not typically designed for record capturing and management, there is a need to investigate and document platforms used by the government and the type of records being created, and to devise strategies to capture and preserve the required records appropriately.

#### **5.4.2 The authenticity measures for liquid communication**

The liquid nature of records generated through the use of social media requires that precautionary measures be put in place to ensure that the records remain authentic. The use of diplomatics to assess the authenticity of a variety of documentary forms has led to the application of diplomatic principles in the digital environment and the development of a specialised field of "digital diplomatics" developed at the University of British Columbia (UBC) through the International Research on Permanent Authentic Records in Electronic Systems (InterPARES) research projects (Rogers 2015:7). The governance of liquid communication requires that practices should be in place to trace authorised annotation of, addition to or deletion of a record, and that these should be explicitly indicated and traceable (Franks 2010:28).

In this study, two participants pointed out that issues of ensuring authenticity in their case were not applicable as they have not reached that level of managing liquid communication. One participant indicated that they only have a communication process that demands that only PROs can update government social media pages. Another participant revealed that the only measure

in place was to ensure that there were two levels of back-end user rights, which included the author (lower level), done by junior PROs who develop content, prepare a draft and schedule it to be given to another level to approve it, and the super administrator (upper level) finally updates the pages. According to the International Records Management ISO 15489 (2016:8), responsibilities and authorisations for the creation, capture and management of records should be defined, assigned and promulgated.

### **5.4.3 Audit of integrity controls for liquid communication**

The main aim of maintaining the authenticity of the records is to make sure that the nature of any actions undertaken regarding the records are documented, whether through additions of integrity metadata or by compilations of reports to provide a kind of audit trail on what has happened to the records since their creation (Duranti & Preston 2008:212). Audit processes are crucial, particularly in the governance of liquid communication, as Duranti (2014) argues that these types of records are stored in rapidly changing technologies where authorship, ownership and jurisdiction may be questioned. The International Records Management Standard ISO 15489 (2016:13) states that processes for creating, capturing and managing records rely on up-to-date records controls. Therefore, records controls should be reviewed regularly where versions of records controls that have been superseded should be retained and managed as records in accordance with requirements identified from appraisal.

When commenting on the audit process and whether the integrity controls of social media records were audited reliably and systematically, the majority of the PROs indicated that no audits have ever been done on social media. One of them indicated that they had two publishing workflows. The configuration matrix was such that although junior level officers could prepare and load draft content, they could not publish it as they did not have publishing rights. In this matrix, the super administrator could create users and allocate rights in the publishing workflow. When considering the way in which the other PROs answered this question, it was clear that he was not conversant with auditing as it related to the integrity controls for records. This could be attributed to the fact that they did not consider social media content worth managing. The ARMA principle of accountability requires there should be an audit process that includes records management requirements. According to Franks and Smallwood (2014:30), this audit process must involve assigning sufficient levels of accountability as well as identification and addressing any accountability deficiencies.

#### **5.4.4 Value on the protection of liquid communication by the executives**

The support of the executives or senior management for successful information governance is crucial. The executive and/or senior management must:

- drive the information governance effort
- address any obstacles for the implementing team
- communicate the goals and business objectives that information governance addresses
- keep upper management informed on progress (Franks & Smallwood 2014:25).

Although the majority of the PROs were not convinced about the amount of value placed on the protection of social media records by executives and/or senior management, some indicated that the Botswana government executives were fully in support of the government's social media efforts. One participant revealed that all Cabinet members, parliamentarians and accounting officers as permanent secretaries rely on BWgovernment social media pages for information, especially during official events at Parliament such as the State of the Nation Address and the Budget Speech. The President of the country at the time of this study was also reported to depend on government social media platforms for communication. The study revealed that the President occasionally shared and re-tweeted BWgovernment posts and in some cases live streamed. This shows that despite the fact that government had no documented strategies and policies specifically for managing liquid communication generated through the use of social media, the executive appreciated and actively engaged on social media platforms. Like other political figures in the country, the President had personal social media accounts.

#### **5.4.5 Frequency of incidents of inappropriate information disclosure or loss**

As social media has proved to be the Wild West of collaboration and communication with its vulnerabilities where rules change almost all the time, incidents of inappropriate information disclosure are not uncommon (Franks 2014:258). Franks continues to explain that these risks are prevalent where there are no social media policies or a lack of monitoring and enforcement

(Franks 2014:258). The participants were also asked to comment on any incidents they ever had where information was disclosed or lost inappropriately or inadvertently and how often they had experienced such a situation; they all indicated that it has never happened with government social media pages. They revealed that incidents of posting inappropriate information by the users have been observed from the users.

#### **5.4.6 Goals related to liquid communication protection**

The protection of records and information in an information governance programme requires that records that are essential to business continuity or have security of private, confidential, privileged, secret and classified, should be protected (ARMA 2017). In the case of liquid communication generated through the use of social media, access and security controls need to be established, implemented, monitored and reviewed (Franks & Smallwood 2014: 32). These records are fragile owing to the high pace of technological changes, resulting in their obsolescence (Ngoepe 2017:35). The challenges embedded in the protection of digital records concern the physical media on which digital data are recorded, format obsolescence and technical opportunities, tools for retrieval and use of preserved information resources as well as digital coding of information (Thibodeau 2015).

All the PROs in this study indicated that the government of Botswana does not have defined specific goals related to social media records protection. As a result, the study could not establish whether the initial goals related to protection were being met and whether there was any established process to ensure records protection goals were routinely reviewed and revised.

#### **5.4.7 Access controls responsibilities**

To protect liquid communication generated through the use of social media by the Botswana government, one of the steps to be taken is assigning access controls to prevent unauthorised access and disclosure. The ISO/IEC 27001:2013, Information technology – Security techniques – Information Security Management Systems – Requirements, states that access controls are one part of a broader approach to securing information through an information security management system. The super administrators (upper level), in relation to the deputy permanent secretary of communications and the PPRO, were mentioned as having the responsibilities to create users on government social media pages and assign access controls

for security purposes. The International Records Management Standard ISO 15489 (2016:13) requires that records controls should be developed to assist in meeting records requirements. These controls include the following:

- a) metadata schemas for records
- b) business classification schemes
- c) access and permissions rules
- d) disposition authorities.

According to the ISO 15489 (2016:13), records controls may be designed and implemented in a variety of forms, depending on the technological and business environment. Their design and implementation should take account of the nature of the records systems with which they need to interact.

## **5.5 Retention and disposition of liquid communication**

In line with the fourth objective of this study, this study investigated how liquid communication generated through social media in Botswana was retained and disposed of. This objective was informed by the ARMA principles of retention and disposition (ARMA 2017). The principle of retention requires organisations to maintain their records and information for an appropriate period, taking into consideration their legal, regulatory, fiscal, operational and historical requirements while the principle of dispositions requires organisations to provide secure and appropriate disposition for records and information that are no longer required to be maintained by applicable laws and the organisation's policies. Records retention is the function of maintaining records for continued use while disposition is the process that comes after the retention requirements have been met where records may be destroyed or archived. The records retention schedule is normally used to document the records-keeping requirements and procedures, identifying how records are to be organised and maintained, what needs to happen to records and when, who is responsible for doing what, and whom to contact with guidance (Franks & Smallwood 2014:32-33). The International Records Management Standard ISO 15489 (2016:18) requires that records and metadata should be retained for the time periods specified in disposition authorities where disposition actions may include the following:

- a) destruction of records and metadata

- b) transfer of control of records and metadata to an organisation that has assumed responsibility for the business activity through restructure, sale, privatisation or other business change
- c) transfer of control of records and metadata to an institutional or external archive for permanent retention.

This section discusses sub-themes that were revealed under this objective which include: documentation of the processes used to guide the transfer or disposition of social media records in Botswana, the role of BNARS in the development of guidelines for the retention and disposition of social media records, records retention schedule or policy as well as the extent to which BNARS was involved in arriving at decisions related to the retention and disposition of social media records. As in objective number three, which sought to examine integrity measures for the governance of liquid communication, this study found that despite the active use of social media platforms by the Botswana government which generates liquid communication, there was no governance in that regard. This means that issues of retention and disposition of liquid communication were also not in their plans. This situation was not peculiar to Botswana as the literature has demonstrated that in most countries, there was a lack of coordinated efforts to manage social media records (InterPARES 2016:76; Mickoleit 2014; Goh et al 2012:2).

### **5.5.1 Processes to guide the transfer or disposition of liquid communication in Botswana**

All the PROs interviewed in this study indicated that there was no documentation of the processes used to guide the transfer or disposition of social media records in Botswana. As a result, there were no processes in place for suspending disposition in the event of investigation or litigation as this study sought to find out. Nonetheless, the ISO 15489 (2016:19) outlines the following principles that should govern the destruction of records:

- a) destruction should always be authorised
- b) records pertaining to pending or actual litigation or legal action or investigation should not be destroyed while that action is underway or anticipated to arise
- c) records destruction should be carried out in a way that ensures complete destruction and that complies with any security or access restrictions on the record
- d) destruction, like any disposition action, should be documented.

### **5.5.2 BNARS in the development of guidelines for the retention and disposition of liquid communication**

BNARS is mandated by the NARS Act of 1978, as amended in 2007, to manage all records created in government agencies, regardless of these records' format. This mandate extends to the governance of liquid communication generated through the use of social media by the Botswana government as the NARS Act's definition of a record recognizes all records, regardless of its format (Government of Botswana 1978). Consequently, this study sought to find the role of BNARS in the development of guidelines for the retention and disposition of liquid communication generated through the use of social media records by the Botswana government.

This study revealed that despite BNARS being a public body entrusted with the management of public sector records, it played no role in guiding the BGCIS, which manages the Botswana government's social media platforms, in the development of guidelines for the retention and disposition of liquid communication. This was unlike in other countries such as the United Kingdom, the United States of America, Canada and Australia where the national archival institutions spearheaded the issuance of policies and guidelines to other government agencies on how to manage social media records (National Archives of Australia 2018; Victoria State Government; 2016, National Archives and Records Administration, 2013).

### **5.5.3 Social media records retention and disposition schedule or policy**

A retention and disposition schedule is important in information governance as it identifies the actions needed to fulfil the requirements for the retention and disposal of records and provides the authority for employees and systems to retain, destroy or transfer records (Franks & Smallwood 2014:32). In meeting retention requirements for social media records, Franks (2010:13) advises that agencies should work under the assumption that a records retention schedule is "media-neutral" and, at the same time, should review social media initiatives to determine new records created for scheduling. As with sub-theme 5.5.2, the participants revealed that no documented social media records retention and disposition schedules or policies were used by the Botswana government.

## **5.6 Roles and responsibilities for the governance of liquid communication**

The fifth objective of this study was informed by the ARMA principle of accountability. This principle covers the assigned responsibility for records management at a senior level to ensure effective governance with the appropriate level of authority (Franks 2014:30). On the issue of roles and responsibilities, the International Records Management Standards ISO 15489 (2016:9) states that the decisions about creating, capturing and managing records are business decisions informed by identified records requirements and an assessment of risks and therefore:

- a) the decisions should be authorised by the relevant business manager and documented
- b) the responsibilities should be designated to all personnel who create and use records as part of their work, and be reflected in job descriptions and similar statements, where appropriate
- c) the designation of the responsible individuals may be assigned by law
- d) specific leadership responsibility for the management of records should be assigned to a person with appropriate authority, such as a senior manager.

This section discusses the following sub-themes which emerged under this objective: source of content for Botswana government social media pages, responsibilities in monitoring and removal of social media content, social media metrics, the role of other business unit members contributing to social media, staffing on social media efforts, the role of records, information and communication regulating bodies in Botswana in the governance of liquid communication, the existence of infrastructure and resources for management of Botswana government's social media efforts as well as recommendations for social media adoption by governments.

### **5.6.1 Administration of the Botswana government's social media pages**

Social media allows for content to be created, consumed, promoted, distributed, discovered or shared as described by Gartner (2018). In a government setup, there have to be guidelines on how liquid communication is governed. Franks and Smallwood (2014: 267) explain that in order to avoid legal risks, clear guidelines and monitoring mechanisms should be in place for the control and management of content before it may be published on social media platforms. The sources of content for updating the Botswana government's social media pages were revealed in this study as follows:

- Parliament business – notice paper

- Updates from government ministries and departments (events coverage, press releases and vacancy adverts)
- Government advertisements such as calls for tenders
- National development highlights
- News from events and the Botswana Press Agency (BOPA)
- Footage from Botswana Television (BTV)
- Live coverage of events
- Government portal
- In-house developed content (news and live coverage)

### **5.6.2 Responsibility to monitor and remove content**

As social media platforms like Facebook are used to engage the target audience in a two-way interaction and communication, monitoring the pages by responding to fan questions, comments and other feedback forms one of the key activities (United States of America Center for Disease Control and Prevention 2012:4). This study sought to discover the responsibilities for monitoring the government of Botswana's social media accounts and removing content. The participants revealed that super administrators (upper level) had the responsibilities to monitor and remove content. Since the Botswana government's social media pages are meant to publish government business, content that is normally monitored or removed from the pages includes advertisements, private materials, offensive content and information which has already served its purpose, like government job adverts.

### **5.6.3 Staffing on social media efforts**

This study also wanted to establish the number of people that work solely on social media efforts, their titles, responsibilities and chain of reporting. The study revealed that the Botswana government's social media pages were managed by PROs and records managers had nothing to do with the government's social media efforts. This may be attributed to the fact that social media use by the government was mainly considered as a marketing tool and there was no consideration for managing the resultant communication as records. The chain of responsibilities is that the APROs report to the PPROs who report to the CPRO.

The responsibilities for managing the government's social media pages have been categorised into two (2) levels as follows:

- Author responsibilities – performed by junior officers (APRO or intern)
  - Develops social media content.
  - Prepares draft content for publishing and schedule it.
  - Loads and schedules draft content to give to the upper level to approve it.
  - Publishes already approved content on social media platforms.
  - Drafts responses to enquiries about government service.
  - Escalates unresolved queries and follows up.
  - Takes pictures during events coverage for immediate uploads.
  - Develops graphics, especially for campaigns.
  
- The super administrator (upper level) responsibilities – performed by most senior (PPRO)
  - Creates users/administrators on social media.
  - Extracts footage for YouTube from Botswana Television (BTV).
  - Allocates user rights.
  - Develops content for all social media pages and links content in social media.
  - Monitors performance of links by ensuring that the government's social media platforms do not link with dead links.
  - Edits social media content and performs data quality campaigns.
  - Transforms content into formats that can be posted without losing data quality and for easy access by customers.
  - Filters content.

#### **5.6.4 The role of other business unit members contributing to social media**

The participants revealed that the Botswana government's social media pages receive content from other ministries and departments. Content covers updates on events coverage and press releases as well as government job vacancies adverts. The submissions are made by PROs from the respective ministries and departments. The content should be submitted together with a signed version and an MS Word format electronic version ready for publication. All submissions were submitted through the PR office and then sent to the government

communication's office e-mail (bgcis@gov.bw) for consideration to be published on social media.

#### **5.6.5 Business unit members consulted on social media initiatives**

Regarding whether the Botswana government's communications system office as the administrators of the government's social media consulted other business unit members/government departments (e.g. IT application analysts, records managers, BNARS, DIT, e-government office, BOCRA) regarding social media initiatives, most of the PROs revealed that the information technology office, the DIT and e-government offices were consulted. This means other crucial stakeholders in the management of records and information in the country were not consulted. Of particular importance here is NBARS which has the mandate to control public sector records across their life cycle despite their format.

#### **5.6.7 The role of BNARS/ BOCRA/ DIT in the governance of liquid communication**

This study also purposively selected three of the Botswana government departments that are relevant stakeholders in the role of information management in the country, being the DIT, BNARS and BOCRA, to answer questions that relate to their role in the government's social media efforts.

#### **5.6.8 The mandate of BNARS/ BOCRA/ DIT on information governance in Botswana**

The participants from the stakeholder departments in this study revealed that in terms of information governance in the country, their mandates were as follows:

- **Botswana National Archives and Records Services** – The participants revealed that BNARS was responsible for the management of government information throughout their life cycle (both digital and paper-based records) and making them accessible to users (researchers, government employees and the general public) as per the NARS Act. This mandate extends to the issuance of guiding documents/manuals on how to manage information and continuous monitoring in the public sector. BNARS also provided records management guidance on an advisory basis to parastatals and private organisations in the country.

- **Botswana Communications and Regulatory Authority** – As a regulator of the communications sector that comprises broadcasting, internet, postal and telecommunications, BOCRA issues licences that have clauses regarding confidentiality of information.
- **The Department of Information Technology** – The DIT was mandated, among other things, to provide internet connection in the public sector to promote effective service delivery. The role of the DIT was also to provide guidelines and procedures on internet usage across government.
- **Role of BNARS/ BOCRA/ DIT in the adoption and use of social media in the Botswana government**

Regarding the role played by BNARS in the adoption of social media by the Botswana government, this study revealed that BNARS did not have any role in that respect as the participants gave answers that did not relate to that effect. This is unlike in the United States of America, for example, where, in terms of the use of electronic media, such as blog; website; wiki; and email, including social media, the National Archives and Records Administration (NARA) offered resources and guidance to government agencies (NARA 2013:7). The regulations that governed proper management, archiving and release of records still applied.

The study found out that although BOCRA was not involved in the decision to adopt social media use by the Botswana government, the authority had a role to play as they were mandated to facilitate the development and growth of the communications sector in the country. This was done through the provision of frequencies that are required by licensees to provide services in the communication sector, making licence conditions that drive the development of the sector and address complaints about the use of the internet.

This study revealed that as with BNARS and BOCRA, the role of the DIT in the adoption of social media by the Botswana government was not visible. The DIT was mandated, among other things, to provide internet connection in the public sector to promote effective service delivery. The role of the DIT was also to provide guidelines and procedures for internet usage across the government.

## **5.7 Proposed framework for the governance of liquid communication**

The study participants were given an opportunity to comment on the ideal information governance framework for the governance of liquid communication generated through the use of social media and they suggested that the following should be taken into consideration:

- Resourcing the unit managing social media pages.
- Training of social media pages' administrators.
- Adoption of a social media strategy or policy that outlines administrative structures and manages information flow, steps on addressing queries from customers, ongoing support and monitoring.
- Adoption of other policies that clearly support and enhance social media across different departments.
- Putting measures in place for security of information.
- Legalising and recognising social media records.
- Adoption of metadata standards to establish control over the capturing of liquid information to ensure the correct and proper use and interpretation of information by its owners and users. Metadata standards will enable searching and retrieval of information by relevant users.
- Collaboration with other stakeholders to assist in identifying and capturing what is regarded as permanent records in the social media platforms.
- Recognition of social media platforms as having the potential to generate official permanent records that should be managed within the existing frameworks – legislation and regulations rather than being merely regarded as channels of disseminating information.
- Adoption of records retention and disposal schedules for social media records as well as issues of preservation and transfer.
- Development of guidance on managing social media records by BNARS.
- Training of records managers and archivists in the proper management of social media records identification, capturing and preservation tools available (the driving factor should be content, context and structure) for records management purposes.
- Benchmarking with other institutions that have adopted the use of social media.
- Pre-planning for liquid communication capturing.

- Provision of adequate infrastructure such as bandwidth for prompt and quick dissemination of information.
- Security of information must be given priority.
- Dedicated office which deals directly with social media in terms of monitoring and disseminating government information.
- Dedicated human and technical resources are necessary to ensure immediate responses in real time.
- Guidelines on usage and community standards are also necessary.

## **5.8 Summary**

This chapter provided an interpretation and discussions of the findings of this study as per the research objectives. The study demonstrated that there was a legislative and policy framework for the governance of liquid communication in terms of legislation and policies that deal with information or electronic records management in general. However, this framework was found to be not comprehensive enough to deal with records generated in the cloud environment, such as liquid communication.

This chapter also revealed that social media entries were not considered to be records or managed as such by the Botswana government, which gave rise to questions of accountability and transparency under records management requirements. Risks associated with the use of social media tools by the government of Botswana revealed in this chapter included issues of fake news, misinformation, security of information and lack of social media policy.

It was revealed in this chapter that the government of Botswana was actively using social media platforms and an office, the BGCIS office, to manage the government's social media pages. The government of Botswana has used social media platforms such as Facebook, Twitter, YouTube and Instagram since 2011 to reach out to citizens, although established and formalised goals for the adoption of social media by the government were not found.

As this chapter revealed that liquid communication generated through the use of social media was not regarded as records, measures to ensure integrity and protection of records were lacking. The same goes for the retention and disposition of liquid communication. Moreover,

this study revealed that although other governments departments contributed towards social media effort through contributing content to be posted, not all of them were consulted in the adoption and use of social media by the government. Social media use for the government was mainly the responsibility of PROs. The next chapter provides the conclusions, summary and recommendations for the governance of liquid communication generated through the use of social media by the Botswana government. The chapter also proposes a framework for the governance of liquid communication.

## **CHAPTER SIX**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **6.1 Introduction**

The previous chapter provided the interpretation and discussions of the findings of this study. This chapter presents the summary of study findings, conclusions and recommendations guided by the research questions based on data analysis and interpretation in Chapters Four and Five, respectively, including the literature review in Chapter Two. A conclusion is some kind of overarching statement or series of statements that raises the findings of a study to a higher conceptual level or broader set of ideas (Yin 2011:220). In short, the conclusion condenses what has been accomplished in each phase of the research activity (Ngoepe 2012:185). This chapter also summarises findings of the study presented in Chapter Five. The chapter further presents a proposed framework for liquid communication governance in the Botswana government. The proposed framework will serve as a guide to government agencies on the governance of liquid communication. If implemented, this framework will help the government to capture and preserve liquid communication for legal and business requirements. This chapter is structured to include the following: a summary of the study findings, conclusions according to the objectives of the study, recommendations, proposed framework and suggestions for further research.

#### **6.2 Summary of the study findings**

This section presents the summary of findings as per the research objectives. The aim of this study was to examine the governance of liquid communication generated through the use of social media by the Botswana government with the view to developing a framework for liquid communication governance. The specific objectives of the study are as follows:

1. To examine the legislative and policy framework in relation to the governance of liquid communication generated through the use of social media in the Botswana government.
2. To assess the extent to which social media is used by the Botswana government.
3. To examine measures put in place to maintain the integrity of liquid communication generated through the use of social media in the Botswana government.

4. To investigate how liquid communication generated through social media in the Botswana is retained and disposed of.
5. To establish roles and responsibilities for the management of liquid communication generated through social media in Botswana
6. To propose a framework for liquid communication governance in the Botswana government.

### **6.2.1 The legislative and policy framework for the governance of liquid communication**

The first objective of this study was to examine the legislative, policy and transparency requirements in relation to the governance of liquid communication generated through the use of social media in the Botswana government. This study undertook a documentary review of the existing legislation and policies expected to support the governance of liquid communication in Botswana. According to the International Records Management Standard ISO 15489 (2016:8), the objective in issuing and implementing policies on managing records should be the creation, capturing and management of authentic, reliable and useable records that possess integrity and support and enable business activity for as long as they are required. The findings on the legislative, policy and transparency requirements for the governance of liquid communication are summarised as follows:

- **National Archives and Records Services Act of 1978 (amended in 2007)** – This act was found to recognise the existence of digital records, including liquid communication, through its accommodative definition of a record. However, the act fell short in giving guidance on the management of records generated through the cloud environment, such as liquid communication.
- **Cybercrime and Computer Related Crimes Act of 2007 (Amended 2010, 2017, 2018)** – The act was found to be accommodative to the governance of liquid communication generated through the use of social media. The definition of “traffic data” as per this act is, any data that relate to communication by means of a computer or computer system and that are generated by a computer or computer system that is part of the chain of communication, and that show the communication’s origin, destination, route, time, date, size, duration, or type of underlying service. Through this

act, liquid communication may be retrieved and presented before a court of law as evidence.

- **Electronic Records (Evidence) Act No.13 of 2014** – This act was relevant in governance of liquid communication as it provides for the admissibility of electronic records as evidence in legal proceedings and authentication of electronic records.
  - **Electronic Communications and Transaction Act of 2014** – As this act provides for the facilitation and regulation of electronic communications and transactions, it is mainly concerned with consumer protection, electronic transactions and commercial communications and not necessarily the governance of liquid communications. Despite that, the act also regulates the requirements for the retention of information and requirements for the production of documents of information in the electronic environment, which covers liquid communication.
  - **National Information and Communications Technology Policy (2007)** – This policy served as the main basis for Botswana to drive the effective use of ICT. The policy commits the government to providing an enabling environment for online services through legislation that protects increased levels of electronic interaction as well as government-online initiatives to enable remote government interaction with the citizens. As a result, governance of liquid communication is fully supported by the policy if it could be integrated into business processes.
  - **Other policies**

This study found that the Botswana government currently does not have a specific social media policy or strategy to give guidance on the governance of liquid communication, although there are other policies that govern internet use in government. Implementation of these policies, designed by the DIT for the entire government was found to be lacking as not even the DIT participant in this study mentioned them. The policies that were freely available online and could incorporate governance of liquid communication, included:

    - Computer Equipment Acceptable Use Policy (2001)
    - Anti-virus and malware Policy (2001)
    - Removable Media Policy (2010)
    - Internet Access Policy (2010)

- Password Policy (2006)
- Web-content Publishing Framework (2010)

By the time of data collection for this study, there were no reported social media entries required from the government of Botswana's social media platforms by the courts for legal purposes. However, the Cybercrime and Computer Related Crimes Act of 2007 (Amended 2010, 2017, 2018) and the Electronic Records (Evidence) Act No. 13 of 2014 supported the retrieval of social media entries as evidence before the courts of law. These laws have been used in other cases in the country not related to the Botswana government's social media platforms, as revealed by this study.

It is important that the communication that takes place between the government and the citizens on social media platforms is retained for reasons of accountability and transparency. Liquid communication generated through the use of social media by the Botswana government is evidence of government business and should be treated as such. However, this study revealed that social media entries were not considered or managed as records by the Botswana government. This is despite the fact that the NARS Act of 1978 (amended in 2007), which is the principal records management legislation, recognises the existence of other records formats such as liquid communication through its definition of a record. Moreover, social media content has been recognised as records and managed according to records management requirements elsewhere around the world. The literature indicates that other governments and organisations in countries such as the United Kingdom, the United States of America, Canada and Australia have social media policies and strategies to guide the management of social media content. Failure by the Botswana government to manage liquid communication will result in legal and records management challenges. Despite taking a conscious decision to use social media, this study revealed that there are risks associated with the use of social media tools by the government of Botswana. These risks include: fake news, misinformation, security of information, lack of social media policy. If not addressed, these issues could make it difficult to ensure the integrity of liquid communication, especially in this era of post-truth and fake news. It is with this background that this study proposes a framework for governance of liquid communication generated through the use of social media. This framework requires that there should be a strong legal and policy framework to support the capturing, preservation and access of liquid communication to meet legal and business requirements. Mosweu and Ngoepe (2018:

65) also underscore the importance of having a programme in place to ensure compliance with the applicable laws and other binding authorities, as well as with the organisation's policies.

### **6.2.2 The extent of social media usage by the Botswana government**

The Botswana government has been actively using social media platforms to interact with the citizens since 2011 for increased access, usage and awareness of services offered by the government. Even though there were no documents on social media use, policies and strategies, the government recognised that social media efforts need to be taken into account as the BGCIS office was mandated to coordinate and manage the government's social media pages through its e-communication function. The government of Botswana mainly used Facebook, Twitter, YouTube and Instagram. These accounts were primarily used to disseminate government information, advertise government business and address citizen enquiries.

The national ICT policy was cited in this study as the main instrument that drove the government to give more people access to the internet and this led to the increased adoption and use of social media platforms in Botswana. Notwithstanding this, much had not been done by the government in terms of the governance of liquid communication generated through the use of social media, especially for the Botswana public sector, as this study revealed. One of the impacts of the adoption and use of social media on information government in the country was that social media improved information dissemination and distribution. The impact noted in this study with regard to the adoption and use of social media platforms in Botswana included: pre-mature disclosure of information resulting in unfair governance, social media as a breeding ground for corrupt practices as people could use third-party information for criminal intentions, increased rate of fake news as quality checks available under conventional media environment were always flawed, disregard for cultural norms and values in Botswana where users could break unconventional news on social media platforms.

Although this study revealed a heavy presence of the Botswana government on social media platforms, documentation on the factors that led the Botswana government to adopt the use of social media platform was not found. The study nonetheless revealed that social media was viewed as an effective and efficient tool for reaching out to the public owing to the high mobile phone penetration in the country, the ability of social media platforms to spread important messages such as on disasters in real time and the fact that it was easier and cheaper to reach

the target audience through social media platforms. The government of Botswana has adopted different social media platforms, but they did not have the same level of activeness. Facebook was the most popular and even during the interviews, the participants kept mentioning 'Facebook'. Other platforms such as Twitter, LinkedIn, Google+ and Instagram were hardly mentioned by the participants. The following list demonstrates the top four social media platforms used by the government in terms of their popularity with the Botswana government social media followers:

- Social networks – Facebook had more followers than any other Botswana government social media platform.
- Microblogging – Twitter: the government had a Twitter account as @BWgovernment, which mostly shared information as shared on their Facebook page “BWgovernment”.
- Multimedia sharing – YouTube was used as a repository platform for the Botswana government’s video footage taken during important events.
- Instagram – The account was active but did not have many followers as it was the latest social media platform used by the Botswana government.

This heavy use of social media platforms by the Botswana government demands that liquid communication generated in the process should be captured and preserved as suggested in the proposed governance framework for liquid communication in this study (See Figure 6.1). As social media has the capability to produce measurements, organisations can use it to track their impact and the effectiveness of their tactics and strategies. This study looked into the penetration level of the Botswana government’s social media pages using these measurements. One of the metrics tracked in this study was insight into the number of people who had any contact with the BWgovernment Facebook page by age and gender. The metrics indicated that the majority of people who interacted with the page were the youth. The definition of a youth for this study was as per the Botswana Revised National Youth Policy which considered a youth as a person of the age between 15 to 35. This tallied well with the Botswana 2011 population which indicated that Botswana had a relatively youthful population with approximately 46.5% being youth (Statistics Botswana 2013). This study also revealed that, apart from the followers from Botswana, the BWgovernment Facebook page had huge followings from other countries such as South Africa, the United States of America and the United Kingdom. The page insights also showed that the page was accessed by people across

the country, mostly from Gaborone in the South East District, followed by Francistown (North East), Johannesburg (South Africa) and Maun from the North West of Botswana.

As the preliminary survey of this study indicated that not much was being done by the Botswana government in terms of the governance of liquid communication generated through the use of social media, this study sought to discover what challenges were experienced in the social media usage by the government. This study revealed that coverage of government events in real time demanded availability of resources such as trained personnel, convenient transport, reliable network connections and equipment to capture materials for uploads. Social media users need information at the moment the event happens. If the pages are not updated in real time, they might lose trust and followers. Although incidents of hackers into the Botswana government's social media pages were not revealed in this study, security and privacy of information were cited by the participants in this study as some of the challenges. Non-existence of a coherent strategy and specific social media records policies were some of the other challenges experienced. More challenges revealed by this study included impact on productivity as employees were reported to spend more time on social media than their work and that it brought about the erosion of cultural values as anybody could post materials considered to be against societal values in the country. These challenges were stated by the study participants as indication that a governance framework for liquid communication generated through social media was a necessity for the government of Botswana.

### **6.2.3 Measures put in place to maintain the integrity of liquid communication**

For liquid communication to be considered authoritative evidence of business events or transactions and to fully meet the requirements of the business, it should possess the characteristics of authenticity, reliability, integrity and usability (ISO 15489:2016). Liquid communication requires the maintenance of its integrity as well as a reasonable level of protection for business continuity (ARMA 2017). This study found that measures of ensuring the integrity and protection of liquid communication were barely taken into consideration by the Botswana government, primarily because social media was not considered as generating any information to govern.

This study found that processes for introducing new record-generating systems for social media records, that is, capturing their metadata and meeting other authenticity requirements, including

chain of custody, was not formally undertaken at the Botswana government. Despite that, this study revealed that junior officers were tasked with developing content, preparing draft content and scheduling it for the upper level officers to approve it before it could be published. As the matters of ensuring the integrity and protection of records are paramount to information governance, there was a need to formalise the processes for introducing new records-generating systems for social media at the Botswana government. The Records Management Standard ISO 15489 (2016:6) provides that the design and implementation of records systems should take account of the business context and identified records requirements, and should be carried out with the following objectives:

- a) Conformance to the characteristics of records systems listed
- b) Interoperability to support interaction with other systems and a flexible approach to the use of records controls
- c) Ease of records use and reuse
- d) Readiness for technological or business change, such as system upgrades or administrative restructuring
- e) Readiness for business interruptions and business continuity in the event of unexpected disruptions

Governance of liquid communication generated through the use of social media requires that precautionary measures be put in place to ensure that the records remain authentic. As this study revealed that no formalised measures were put in place to ensure that social media records remain authentic, the study suggests authenticity measures to be put in place as explained in the proposed framework for the governance of liquid communication proposed by this study. Even though the ARMA (2017) principle of accountability requires there should be an audit process that includes records management requirements, this study revealed that no audits have ever been done on social media records. This study also revealed that despite the aforementioned, the Botswana government executives and senior management were in support of the government's social media efforts, indicated by their regular use of the government page for access to information; however, the amount of value placed on the protection of social media records was found to be lacking. It would be ideal to have policies and strategies in place for the governance of liquid communication generated through in use of social media by the government as an indication that the executives and/or senior management places value on the protection of social media records. This is also suggested in the proposed governance framework for liquid communication by this study.

It is important for the staff that manage the government's social media pages to know that the content they post carries potential legal risks as it is nearly impossible to completely erase and destroy content once posted on the web (Franks & Smallwood 2014:267). This study revealed that since the adoption and use of social media by the Botswana government, there had not been any official incidents where information was disclosed or lost inappropriately or inadvertently. In terms of establishing the goals set for social media protection, this study indicated that the government of Botswana did not have any defined goals related to social media records protection. Therefore, this study could not establish whether the initial goals related to the protection of social media records were being met and whether they were regularly reviewed and revised, which are very important tasks in ensuring the protection of social media records. The protection of liquid communication demands that there should be a process of assigning access controls to prevent unauthorised access and disclosure of information. This study revealed that at the Botswana government, the super administrators (upper level) were assigned responsibilities to create users and assign access controls for security purposes.

#### **6.2.4 Retention and disposition of liquid communication**

To investigate how liquid communication generated through social media in Botswana was retained and disposed of, this study looked into documentation of the processes used to guide the transfer or disposition of social media records in Botswana, the role of BNARS in the development of guidelines for the retention and disposition of social media records, records retention schedule or policy as well as the extent to which BNARS was involved in arriving at decisions related to the retention and disposition of social media records. This study found that despite the active usage of social media platforms through which liquid communication is generated by the Botswana government, the retention and disposition of liquid communication tasks were not formalised.

This study revealed that there was no documentation of the processes used to guide the transfer or disposition of social media records in Botswana. The findings of this study demonstrated that despite BNARS being a public body entrusted with the management of public sector records across their life cycle as per the NARS act, it played no role in guiding the BGCIS office, which manages the Botswana government's social media platforms, in the development

of guidelines for the retention and disposition of liquid communication. This study revealed that there were no documented social media records retention and disposition schedules or policies used by the Botswana government. Even a retention and disposition schedule as a tool to identify the actions needed to fulfil the requirements for the retention and disposal of records and to provide the authority for employees and systems to retain, destroy or transfer records was non-existent. It is from this revelation that this study advocated for the adoption of a retention and disposition schedule for liquid communication generated through the use of social media to provide authority for its retainment, destruction or transfer to the national archives for permanent preservation.

### **6.2.5 Roles and responsibilities for the governance of liquid communication**

The fifth objective of this study as informed by the ARMA principle of accountability (ARMA 2017), is concerned with the assigning of responsibility for records management at a senior level to ensure effective information governance. This section looked into the sources of content for the Botswana government's social media pages, responsibilities for the monitoring and removal of social media content, social media metrics, the role of other business unit members contributing to social media, staffing of social media efforts, the role of records, information and communication regulating bodies in Botswana in the governance of liquid communication, as well as the participants' recommendations for social media adoption by governments.

As revealed in this study, the sources of content for the Botswana government's social media pages were mainly government ministries and departments. The content for updating the Botswana government's social media pages was mostly to push government business collected from events coverage, press releases and vacancy adverts. This study revealed that the government of Botswana's social media accounts were maintained by the government of Botswana through the BGCIS office, as compared to being outsourced. This study revealed that super administrators (upper level) had the responsibilities to monitor and remove content. Although it was not common to remove official content previously posted on government social media pages, the administrator regularly monitored contents from individuals and other private companies such as advertisements and offensive content, as the pages were exclusively meant to drive the government agenda.

This study revealed that the Botswana government's social media pages were managed by PROs as the pages were used as a marketing tool for the government. The number of PROs ranged between three to six officers at a time. This number was found to be inadequate as the government operated at least four social media pages at time. Records managers were not included in either decision-making for managing the pages or the governance of liquid communication. There was a chain of responsibilities for the PROs where the APROs report to the PPROs, who report to the CPRO. The responsibilities in managing the government social media pages were categorised into two levels where junior officers were assigned author responsibilities, while the most senior PROs had upper level responsibilities.

As one of the best practices for managing liquid communication, Franks and Smallwood (2014: 267) posit that input and advice from other business units are crucial in an information governance programme. The study revealed that the main role played by other government ministries and departments was just to contribute content to be uploaded on the government social media pages. The PROs from the respective ministries and departments made the submissions which had to be a signed version and an MS Word format electronic version ready for publication to the BGCIS office. The content would then be sent to government communication's office email (bgcis@gov.bw) for consideration to be published on social media. Other than that, other business units had no contribution to make towards the government's social media efforts.

Regarding whether the Botswana government's communications system office, as the administrators of the government social media, consulted other business unit members/government departments such as the IT application analysts, records managers, BNARS, DIT, e-government office or BOCRA, this study revealed that only the IT office, the DIT and e-government offices were consulted. Other crucial stakeholders in the management of records and information in the country were not consulted. Of particular reference here is the Botswana National Archives and Records Services which has the mandate to control public sector records across their life cycle, regardless of their format. The e-government office was consulted but had nothing to contribute, as this study also revealed that at the time of data collection, the office was not fully functional. This was despite the robust efforts by the Botswana government to establish the office to lead the e-government agenda.

This study examined the role of three Botswana government departments that were purposively selected for this study as relevant stakeholders in the role of information management in the country. These agencies are the DIT, BNARS and BOCRA. This study revealed that these crucial stakeholders had minimum to non-existence roles in the governance of liquid communication generated through the use of social media by the Botswana government.

The study also revealed that in terms of information governance, these departments' mandates were as follows:

- Botswana National Archives and Records Services (BNARS) – Although BNARS was given the mandate by the NARS Act to manage public sector records despite format, the department's role in the governance of liquid communication generated through the use of social media by the Botswana government was non-existent.
- Botswana Communications and Regulatory Authority (BOCRA) – As a regulator of the communications sector, BOCRA also played a minimal role in the governance of liquid communication despite having a mandate to regulate internet communication.
- The DIT – Even though the DIT was mandated to service the government with internet provision and issuance of policies to regulate the use of the internet across government, they played no role at all, as all matters relating to the governance of liquid communication were attributed to the BGCIS.

On the adoption of social media efforts by the Botswana governments, this study revealed that BNARS did not play any role but was limited to providing guidance to other formats of records in the public sector. The study found that although BOCRA was not involved in the decision to adopt social media use by the Botswana government, the authority had a role to play as they were mandated to facilitate the development and growth of the communications sector in the country. This was done through the provision of frequencies that are required by licences to provide services in the communication sector, making licence conditions that drive the development of the sector and address complaints about the use of the internet. This study revealed that as with BNARS and BOCRA, the role of the DIT in the adoption of social media by the Botswana government was not visible. Thus this study proposes the documentation of the roles and responsibilities of the departments through the government's social media policy for accountability purposes.

### **6.3 Recommendations for social media adoption by governments**

This section presents recommendations to address the issues raised in this study as per the research objectives as follows:

#### **6.3.1 Legislative and policy framework**

This study found that although the legislative and policy framework for the governance of liquid communication generated through the use of social media by the government did exist, the existing laws and policies are not comprehensive enough to deal with records generated in a cloud environment, such as liquid communication. As a result, the following recommendations are made:

- National Archives and Records Services Act of 1978 (amended in 2007) – This act was accommodative of liquid communication governance in its broad definition of a record. However, this act may be strengthened with provisions that guide the management of records generated in a cloud environment, such as liquid communication.
- National Information and Communications Technology Policy (2007) – This is a strong policy framework for the effective use of ICT. As this study found that despite its existence, nothing much was done in terms of its implementation in the governance of liquid communication. It is therefore recommended that the policy be integrated into business processes for the governance of liquid communication generated through social media by the Botswana government.
- Social media policy – The government of Botswana should have a social media policy to standardise the governance of liquid communication. This policy would be used to control the creation, receipt, transmission, maintenance and disposition of liquid communication. It would also necessitate the establishment of a records management system to keep track of social media activities to comply with the national archives and records services guidelines for records management and archiving, with applicable laws and other binding policies. As stipulated in the International Records Management Standard ISO 15489 (2016:8), this policy should:
  - a) include a statement about scope, such as which aspect(s) of managing records they cover, applicable standards and auditing requirements, and should also indicate the business activities to which the policy pertains

- b) address required actions in the event of the termination of business processes. These may include decommissioning of records systems and allocation of resources to enable migration and disposition of records as appropriate
- c) define where legislation, regulations, standards, other mandates and best practices affect the creation, capture or management of records
- d) be authorised and endorsed at an appropriate decision-making level and should be promulgated internally and externally as appropriate. Responsibility for policies and for ensuring compliance with policies should be assigned
- e) be regularly reviewed to ensure they reflect current business needs. Policies should state the interval at which they should be reviewed, and who is responsible for the review. Superseded policies are records and should be retained and managed as such.

### **6.3.2 The extent of social media usage by the Botswana government**

This study found that even though the government of Botswana operated different social media pages, Facebook was maintained more than others such as YouTube, Instagram and Google+. It would be ideal for the government of Botswana to maintain all their social media pages and consequently govern liquid communication generated even under those platforms. As the study established that the government had adopted the use of social media platforms without clear policies and guidelines, this study recommends the adoption and implementation of strategies on the use of social media by the government. This would enable the formalisation of the use of social media by the government for transparency and accountability, to increase citizens' opportunities to participate and collaborate in decision-making. The framework for governance of liquid communication generated through the use of social media proposed by this study calls for the application of legal and records management requirements in order to ensure that liquid communication is captured and preserved accordingly.

### **6.3.3 The integrity of liquid communication**

This study has established that measures put in place to maintain the integrity of liquid communication generated through the use of social media by the Botswana government were barely taken into consideration. This was mainly because content from social media was not taken and managed as records. This study therefore recommends that liquid communication be

regarded as records and managed as such. To ensure the integrity of liquid communication, the government should put measures in place to ensure that liquid communication is protected against unauthorised addition, deletion, alteration, use and concealment through audit trails. Audit trails require that any actions undertaken regarding the records should be documented. This would ensure that liquid communication generated through social media would have the characteristics of authenticity, reliability, integrity and usability to be considered authoritative evidence of business events or transactions and to fully meet the requirements of the business. The processes undertaken for introducing new records-generating systems for social media records, such as capturing their metadata and chain of custody, should be strengthened and formalised to ensure the integrity of liquid communication. According to ISO 15489 (2016:6), records systems may be designed specifically to manage records, or may be systems designed for other business processes that are adapted so that they also support the creation, capturing and management of records. The authoritativeness of records is supported by their being managed by records systems that are reliable, secure, compliant, comprehensive and systematic (ISO 15489 2016). As a precautionary measure to ensure that liquid communication remains authentic, this study recommends the use of digital diplomatic content as developed at the University of British Columbia (UBC) through the InterPARES Project.

#### **6.3.4 Retention and disposition of liquid communication**

Objective number four of this study investigated how liquid communication generated through social media in Botswana was retained and disposed of by the Botswana government. This study found that despite the active usage of social media platforms in generating liquid communication by the Botswana government, issues of retention and disposition of liquid communication were also not documented and formalised. This study recommends a retention schedule for liquid communication to be used to document the records-keeping requirements and procedures, identify how records are to be organised and maintained and identify the records responsibilities of individuals. It is also recommended that BNARS as a public body entrusted with the management of public sector records, should guide the BGCIS office in the development of guidelines for the retention and disposition of liquid communication.

#### **6.3.5 Roles and responsibilities for the governance of liquid communication**

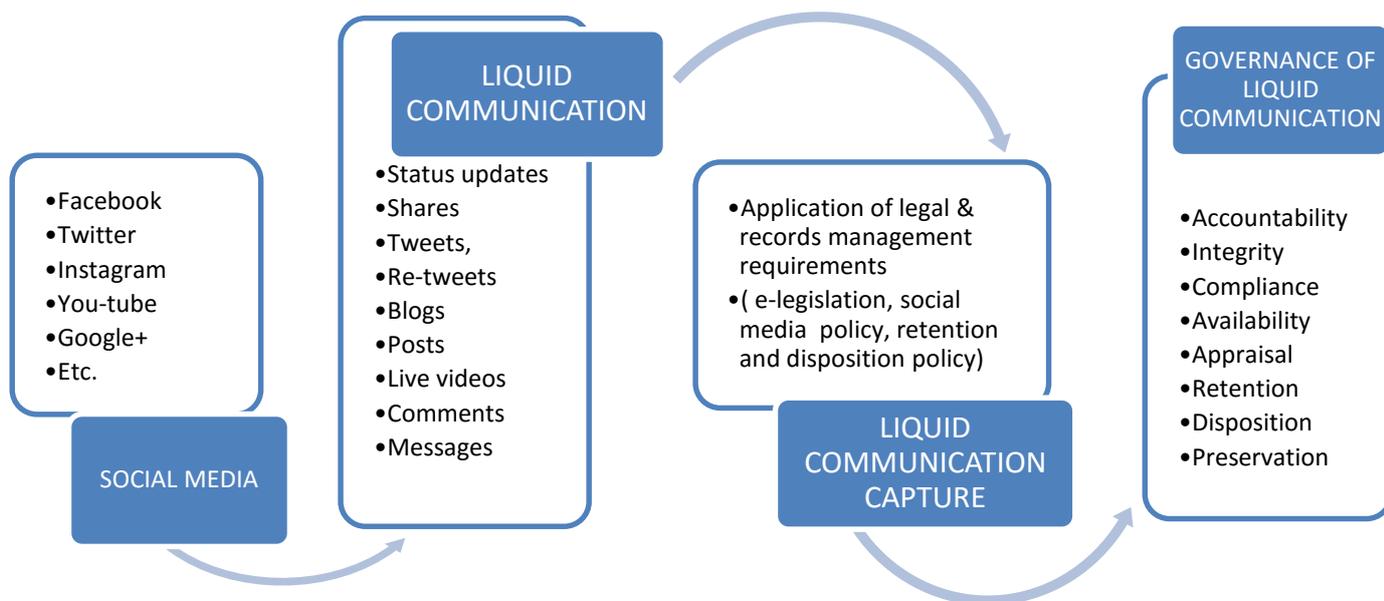
This study revealed that only the roles and responsibilities of PROs as the administrators of the Botswana government's pages were specified while those of other crucial individuals, units and departments were not specified. Therefore, this study recommends a cross-functional approach to the governance of liquid communication in Botswana. The roles and responsibilities of IT application analysts, records managers, BNARS, the DIT, BOCRA and the e-government office in the governance of liquid communication should be spelt out clearly and documented. This study further adopts and recommends the designation of responsibilities as stipulated by the International Records Management Standards ISO 15489 (2016:9) as follows:

- a) Records professionals are wholly or partly responsible for aspects of managing records, including the design, implementation and maintenance of records systems and their operations, and for training users in their responsibilities and records systems operations as they affect individual practices.
- b) Records professionals or others responsible for managing records are responsible for developing, implementing and maintaining metadata schemas and other controls, in association with other personnel, such as information technology professionals, business managers and legal professionals.
- c) Senior managers are responsible for ensuring support for the development and implementation of policies on the management of records.
- d) Managers are responsible for ensuring that requirements for records of work processes conducted in their business areas are met.
- e) Systems administrators are responsible for ensuring continuous and reliable operation of records systems under their control and for ensuring that all systems documentation is complete and up to date.
- f) All personnel are responsible and accountable for creating and keeping accurate and complete record of their business activities.

#### **6.4 Proposed framework**

As per the last objective of this study which sought to propose a framework for the governance of liquid communication generated through the use of social media by the government, this section presents the proposed framework. This study established that despite the continuous use of social media platforms since 2011, thereby generating liquid communication, formalised processes and procedures for the governance of liquid communication were lacking. The lack of formalised processes and procedures for the governance of liquid communication poses risks

for the government which relate to legal and compliance requirements. It is mainly for this reason that this study proposes a framework for liquid communication. The proposed framework in Figure 6.1 would assist the government in ensuring that there is effective and efficient use of information in enabling the government to achieve its intended goals in the use of social media platforms.



**Figure 6.1: Framework for the governance of liquid communication generated through social media**

This study acknowledges social media, including social networking applications such as Facebook and Google+, microblogging services such as Twitter, blogs, wikis, and media-sharing sites such as YouTube, where official government business takes place. The interaction between the government and the citizens results in liquid communication. As liquid communication may be requested as evidence before the court of law as per the Botswana laws, there is need for liquid communication governance for legal and compliance purposes.

**(a) Social media**

This study established that the Botswana government has been actively using social media platforms to interact with the citizens since 2011 for increased access, usage and awareness of its social media platforms. The government recognised that there was a need for this function to be allocated an office in the government structure. As a result, the GCIS office was mandated

to coordinate and manage the government's social media pages through its e-communication function. The government of Botswana mainly used Facebook, Twitter, YouTube and Instagram. These accounts were primarily used to disseminate government information, advertise government business and address citizen enquiries. The use of social media in government was supported by the national ICT policy which recognised the need for government presence online for quick and easy access to government services by the citizens.

This study noted that the use of social media by government came with challenges such the unavailability of social media policies and strategies. As this study revealed, information governance issues were lacking with regard to liquid communication generated through the use of social media by the Botswana government. This exposed the government to social media threats that pertain to issues of privacy, security, fake issues and legal compliances.

#### **(b) Liquid communication**

This study terms liquid communication as records generated by the government on social media for customer service, access to information and direct community involvement needs. The concept of liquidity was introduced by Bauman (2000) who stated that liquids, unlike solids, cannot easily hold their shape. While solids have clear spatial dimensions, fluids do not keep to any shape for long and are constantly ready. It is the flow of time that counts, more than the space they happen to occupy (Choi et al 2013:3). Liquid communication generated through the use of social media encompasses status updates, shares, tweets, re-tweets, blogs, posts, comments, live videos and messages. By applying the concept of liquidity to records management, it is possible to capture or govern this liquid communication. Although this study did not reveal any incidents where information was disclosed or lost inappropriately or inadvertently, especially because liquid communication was not taken to require any governance, it revealed that government activities on social media such as status updates, shares, tweets, re-tweets, blogs, posts, live videos, comments and messages generated the fragile liquid communication. Liquid communication generated through the use of social media is unstable; there is an uncertain durability and its future availability calls for its governance.

#### **(c) Capturing of liquid communication**

This study revealed that despite the fact that the government of Botswana was active on social media, thereby generating liquid communication, there were no measures for the capturing of

liquid communication. This study concludes that liquid communication generated through the use of social media by the Botswana government is evidence of government business and should be managed accordingly for other business requirements, as supported by the legal framework. The definitions of a “record” according to the International Records Management Standard of ISO 15489-1 (2016) and the Botswana National Archives and Records Services (Government of Botswana 1978) both recognise liquid communication as records. As a result, the records management requirements should be extended to the management of liquid communication when it is proven that the records possess the characteristics of authenticity, reliability, integrity and usability to be considered authoritative evidence of business events or transactions and to fully meet the requirements of the business (ISO 15489-1 2016). The moment an organisation is satisfied that the liquid communication generated through social media has the above characteristics, the liquid communication should be captured and managed according to the organisation’s records management requirements. The communication that takes place between the government and the citizens should be retained for reasons of accountability and transparency under records management requirements and legal requirements. Some social media platforms such as Facebook, LinkedIn and Twitter have export capabilities built into their systems which convert content into files that can be available for downloading. Drawing from these study discussions and the Library of Congress’s (2018) digital archiving process, this study recommends the following steps to be taken to capture liquid communication:

**1. Identify the social media platform**

- a) Locate all your content on the social media sites.
- b) Include current information as well as any older (archived) content.

**2. Decide which information has long-term value**

- a) Select the information classified as records according to your records management requirements.
- b) Pick individual pieces of information or select a whole page or site.

**3. Export the selected information**

- a) If saving a limited amount of information, you can use the "save as" command in your web browser to export the site as individual files.
- b) If saving entire pages or sites, consider automatically exporting them as a series of linked files.
- c) Save metadata for your content information, such as site name or date created.

#### **4. Organise the information**

- a) Give individual files descriptive file names.
- b) Create a directory/folder structure on your computer to put the saved information.
- c) Write a brief summary of the directory structure and its files.

#### **5. Make copies and manage them according to your records management requirements**

- a) Make at least two copies or more of your selected information.
- b) One copy can stay on your computer or laptop; save other copies on separate media such as DVDs, CDs, portable hard drives, thumb drives or internet storage.
- c) Store copies in different locations that are physically as far apart as practical. If disaster strikes one location, the other copy of your important web content in the other place should be safe.
- d) Place a copy of the summary description with your important papers in a secure location.
- e) Check the saved files at least once a year to make sure you can read them.
- f) Create new media copies every five years or when necessary to avoid data loss.

There is a need for a records management system to be set up to keep track of social media activities to comply with records management and legal requirements. The type of social media posts to be captured may include the following:

- The original post from the social media site.
- Responses to the original post, if any are received.
- Relevant posts identified when monitoring social media sites.
- Content republished by the agency when the content has come from elsewhere (The Public Records Office Victoria 2013).

The legal and records management requirements may vary from country to country according to the existing laws and established records management requirements that regulate information governance in each country. Notwithstanding the above, the governance of liquid communication requires the existence of a social media policy to ensure a formalised process for the governance of liquid communication. This policy should regulate the control, creation, receipt, transmission, maintenance and disposition of liquid communication. It is through this

policy that a records management system is established to keep track of social media activities. The social media policy would facilitate compliance with the national archives and records services' guidelines for records management and archiving as well as compliance with applicable laws and other binding policies in the country.

**(d) Governance of liquid communication**

This study discovered that, after liquid communication is captured from social media, there is a need to govern it accordingly. Governance of liquid communication in this study was premised upon the ARMA Generally Accepted Recordkeeping Principles (ARMA 2017). The eight principles are outlined as: accountability, transparency, integrity, protection, compliance, availability, retention and disposition. As these principles describe effective information governance, they were considered to be relevant for this study as they apply to all types of organisations, in all types of industries, including government or the public sector (Franks & Smallwood 2014:29). These ARMA principles apply in the governance of liquid communication generated through the use of social media as follows:

- **Accountability:** For the governance of liquid communication, responsibility for records management should be assigned at a senior level to ensure effective governance with the appropriate level of authority. This officer will be responsible for delegating responsibilities for the governance of liquid communication to records managers in an organisation. Responsibilities in the monitoring and removal of social media content should be assigned, the role of other business unit members contributing to social media should be clearly spelt out, there should be adequate staffing on social media efforts and the role of other stakeholders on the governance of liquid communication should be stated.
- **Integrity:** Liquid communication generated through the use of social media should have a reasonable and suitable guarantee of authenticity and reliability to be considered authoritative evidence of business events and to fully meet the requirements of the business. To ensure the integrity of liquid communication, an organisation should have established processes for introducing new records-generating systems, diplomatics should be used to assess the authenticity of liquid communication, integrity controls for liquid communication should be audited regularly, actions undertaken on liquid communication should be documented to provide an audit trail and access controls responsibilities should be assigned by a

senior officer to prevent unauthorised access and disclosure of liquid communication.

- **Compliance:** Governance of liquid communication requires compliance with applicable laws, other binding authorities, and the organisation's policies. To ensure compliance, appropriate legislation and policies that support the management of records generated in cloud environments should exist, social media entries should be considered as records, captured and managed as per the organisation's records management requirements, retrieval processes of social media entries and risks management in the use of social media tools should exist to ensure trust in liquid communication.
- **Availability:** An organisation should govern liquid communication in a way that it can be retrieved in a timely, efficient and accurate manner when required. This may be achieved through the following processes' documentation of organisational goals for the use of social media tools, maintenance of active social media platforms through regular updates and the use of social metrics to track the impact of social media and the effectiveness of an organisation's social media strategies.
- **Retention and disposition:** Retention requires that liquid communication be maintained for an appropriate period of time, taking into account the legal, regulatory, fiscal, operational and historical requirements. In terms of disposition, organisations should provide secure and appropriate disposition of liquid communication that is no longer required to be maintained by applicable laws and the organisation's policies. To achieve this, an organisation should have a records retention schedule or policy to document the processes used to guide the transfer or disposition of liquid communication. Moreover, the national archival institution should give guidance on the development of guidelines for the retention and disposition of liquid communication as well as associated decisions.
- **Appraisal:** Appraisal, as the process of determining the value of the records is a crucial exercise to undertake in any organisation, especially for records generated in cloud environments. Appraisal in cloud environments should focus on the functions and transactions of the record creator, rather than on individual records and their potential uses because there are countless ongoing series of multi-media records to appraise within unstable organisations (Cook 1997). Unlike in a paper environment where the records managers would wait for the records to reach the

inactive stage according to the life cycle of records to appraise and archive them, liquid communication requires that appraisal be done from the creation stage. Following the ISO 15489 (2016:10-11) guidelines, appraisal of liquid communication should combine an understanding of business context with the identification of requirements for evidence of business that should be met through records, which involves:

- a) developing an understanding of the nature of the business and its legal, resourcing and technological setting
  - b) using risk assessment to determine what records should be created and how they should be managed to meet the range of applicable requirements. This involves assessing the risks affecting the business generally, and risks that can be managed through the creation, capturing and management of records.
- Preservation: Liquid communication generated through the use of social media should be preserved if they possess continuing value. As liquid communication can be shared many times beyond the control of the creating organisation, raising preservation challenges, organisations need to have preservation measures in place to control the activities that ensure stabilisation and protection of the intellectual content. The unreliable environments and continuous changes with regard to security, privacy, service agreements and standards inherent in social media demand that preservation measures be taken into consideration for the governance of liquid communication. An organisation should have policies and strategies in place designed specifically to ensure long-term preservation of liquid communication. Preservation strategies for liquid communication generated through the use of social media may include:
    - Bit preservation – to ensure the integrity of liquid communication and associated metadata over time in their original form, even as the physical storage media which houses them changes.
    - Emulation strategy – to allow access to the original data or software on newer platforms by running the software on the newer platform that emulates the original platform.
    - Metadata and documentation – to provide standardised structured information by explaining the purpose, origin, time references, geographic location, creator, access conditions and terms of use of a data collection.

In order for the framework for the governance of liquid communication generated through social media to work effectively, it requires liquid communication to be captured and preserved according to the records management and legal requirements as in its nature on social media platforms, liquid communication is not fixed by space nor bound by time. These activities require a cross-functional approach where the roles and responsibilities of the PROs, IT application analysts, records managers and other stakeholders are consolidated and documented.

## **6.5 Further research**

This study revealed that the extent of usage of social media platforms by the Botswana government for citizen engagement and participation was huge. This interaction generated liquid communication that may be required for business and legal requirements. Notwithstanding this, the governance of liquid communication generated through the use of social media was found to be weak. Liquid communication was not regarded as worth managing as social media was merely used as a marketing tool, as alluded to by the participants of this study. This study found that government was active in pushing the national ICT policy in ensuring that the legal framework for digital records was strengthened, but the government of Botswana had no policy specifically for managing social media records. As a result, this study suggests further areas of research as follows:

- The contextualisation and instantiation or implementation of the proposed framework at other institutions, including governments or corporates.
- The comparison or benchmarking of the maturity of the governance of liquid communication between governments, for example within Southern Africa, using the proposed framework and/or the ARMA Information Governance Maturity Model.
- The provision of assurance over the liquid communication records generated by utilising social media, the limitation of scope due to public cloud-based social media platforms, and the levels of assurance required based on a combined assurance model.
- An analysis of the laws considered to be relevant for the governance of liquid communication showed that they recognised the existence of liquid communication in their definitions of a ‘record’, ‘electronic communication’, ‘traffic data’, ‘documentary evidence’. The weaknesses of these laws were found to be in regulating on the management of such records. A study is necessary to examine these laws for

consistency and comprehensiveness in covering the management of records generated in cloud environments such as liquid communication.

- This study also found that the Botswana government was actively present on social media platforms. It would be desirable that a different study be undertaken to assess the extent to which social media helped the government to achieve its social media goals.
- As this study revealed that measures for ensuring the integrity of liquid communication were lacking at the Botswana government, another study may be done to propose a framework for authenticating liquid communication. This study revealed that governments are increasingly using social media platforms to conduct business through research and that social media is embedded with threats to information requiring records integrity measures to be in place.
- As this study revealed that the government of Botswana did not have any policies or strategies specifically targeted towards the management of social media content, a study may be done to investigate the extent to which policy framework can enhance the governance of liquid communication.
- This study found that the roles and responsibilities for the management of liquid communication in Botswana government were not coordinated and clearly defined across government. The government agencies expected to regulate the information flow for the government were involved in decisions regarding the governance of liquid communication generated through social media by the Botswana government. This calls for a study to foster an approach of cooperation and collaboration on the governance of liquid communication across government.

## **6.6 Implications on theory and practice**

This study found that social media platforms have been used increasingly by governments to engage the citizens in the process of generating liquid communication. As the social media platforms are administered and managed by PROs, the resultant records are not managed accordingly. This study revealed that records managers were not involved in the government's social media efforts. They did not even recognise the need to manage social media content as revealed during this study. As a result, the governance of liquid communication demands that all stakeholders involved in information management contributes towards social media policies and strategies. Theoretically, this study proposed a framework for the governance of liquid

communication generated through the use of social media. This framework would assist the government of Botswana in governing liquid communication as the government is currently heavily engaging citizens online as per its national ICT policy. This study also has implications for policy development as it calls for the adoption and implementation of social media policy to guide the management of social media records in the Botswana public sector. If implemented, the nation's documentary heritage generated through the use of social media by government would be preserved and available for future access.

## **6.7 Final conclusion**

This chapter gave a summary of the chapters and the results. It also draws conclusions from the findings of the research and presentation of recommendations drawn from the study. This study was organised in six chapters. Chapter One provided the background of this study. The theoretical framework, problem statement, purpose of the study, research objectives, research questions, significance of the study, originality of the study, scope and limitations, ethical considerations, discussion of key terms as well as research methodology were presented in this chapter. Chapter Two provided a literature review on liquid communication generated through social media as per the objectives of this study. Chapter Three described the research methodology adopted in this study in detail, including research paradigm, research approach, research design, location and population of the study, data collection methods and procedures, data analysis as well as ethical clearance. Chapter Four presented the findings of this study according to themes adopted from the research framework used in this study. Chapter Five discussed the findings of the study as presented in Chapter Four. Finally, Chapter Six provided the summaries of each chapter and the results. It also drew conclusions from the findings of the research and the presentation of recommendations drawn from this study. The study also proposed a framework for the governance of liquid communication and presented a framework in Chapter Six.

This study investigated the legislative and policy framework for the governance of liquid communication generated through the use of social media by the government in terms of legislation such as the National Archival law, the Electronic records (Evidence) Act, the Cybercrime and Computer Related Crimes Act and the national ICT policy. As these instruments were not found to be comprehensive enough to deal with records generated in the cloud environment, such as liquid communication, the need for a social media policy was

recommended as a matter of urgency. A social media policy was required to guide the creation, receipt, transmission, maintenance and disposition of liquid communication.

Measures to ensure the integrity of liquid communication generated through the use of social media by the Botswana government were lacking. This study found that since liquid communication was not managed as records, audit trails requirements were not formalised and documented to ensure that liquid communication remains authentic. The study also revealed that issues of retention and disposition of liquid communication were not documented and formalised. Although the roles and responsibilities of PROs were specified, it was not the case for records managers and other government units and departments. As a result, this study recommended the capturing and governance of liquid communication generated through the use of social media by the Botswana government. Failure to manage and preserve these records would result in a loss of digital heritage for the country.

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## **APPENDIX 1: APPLICATION FOR A RESEARCH PERMIT**

PO Box 26071

Gaborone

10<sup>th</sup> October 2017

The Permanent Secretary to the President

Private Bag 001

Gaborone

Dear Sir/Madam

### **APPLICATION FOR A RESEARCH PERMIT**

This letter serves to request for a research permit in your Ministry. The researcher is an employee of the Department of Botswana National Archives and Records Services. I am currently a PhD student at the Department of Information Science, University of South Africa. My research project is titled “Governance of liquid communication generated through the use of Social media by the Botswana Government”. Liquid communication here refers to communication generated through an interaction between government and citizens on social media for customer service, access to information and direct community involvement needs.

The aim of this research is to examine liquid communication with the view to develop liquid communication governance framework. The results and recommendations from this research will serve as guidance for organisations in Botswana on the governance of liquid communication generated through social media. This project makes a contribution to the advancement of knowledge on the governance and preservation of liquid communication in the country.

Upon completion of this study, the research will directly deposit a copy of the thesis with the National Depository institutions in Botswana as per the Botswana research permit requirement. Confidentiality will also be maintained.

Kindly receive attached my Research Proposal, Curriculum Vitae, UNISA Ethical Clearance form as well as letter of endorsement.

Thank you for your consideration of my application.

Yours Faithfully

---

Tshepho Mosweu

PhD Student (University of South Africa)

Cell phone: 72264000

Email: [lydhoss@gmail.com](mailto:lydhoss@gmail.com)

## APPENDIX 2: RESEARCH PERMIT

TELEGRAMS: PULA  
TELEPHONE: 3950800  
TELEX: 2655 BD



REPUBLIC OF BOTSWANA

MINISTRY OF PRESIDENTIAL AFFAIRS,  
GOVERNANCE AND PUBLIC  
ADMINISTRATION  
PRIVATE BAG 001  
GABORONE

REF: OP 5/59/8 XII (14)

12 October, 2017

Ms Tshepho Mosweu  
P.O. Box 26071  
Gaborone

Dear Madam

### **APPLICATION FOR RESEARCH PERMIT**

Reference is made to above subject matter.

You are herewith granted permission for research permit to conduct a study titled: **"Governance of liquid communication generated through the use of social media by the Botswana Government."** The permit is valid for 1 year, from October 2017 to September 2018.

1. Copies of any report/papers written as a result of the study are directly deposited with the Office of the President.
2. The permit does not give authority to enter any premises, private establishment or protected area. Permission for such entry should be negotiated with those concerned.
3. You conduct the project according to the particulars furnished in the approved application taking into account the above conditions.
4. Failure to comply with any of the above stipulated conditions will result in the immediate cancellation of the permit.

Thank you.

Yours faithfully,

  
Dr. F. J. Ramsay

**For /PERMANENT SECRETARY TO THE PRESIDENT**

**Copied to:** Director, Botswana National Library Services  
Director, National Archives and Records Services

## APPENDIX 3: STUDY ETHICAL CLEARANCE BY UNISA ETHICS COMMITTEE



### DEPARTMENT OF INFORMATION SCIENCE RESEARCH ETHICS REVIEW COMMITTEE

Date: 11 August 2017

Dear TL Mosweu,

**Decision: Ethics Approval**

Ref #:  
2017\_TLMosweu\_58553339\_001  
Name of applicant: TL Mosweu  
Student #:X  
Staff #:

**Name:** Title and name of principle applicant, address, e-mail address, and phone number  
TL Mosweu, Unisa Information Science, 58553339@mylife.unisa.ac.za; and +26772264000

**Proposal:** Governance of liquid communication generated through the use of social media by the Botswana Government.

**Qualification:** PHD in Information Science

Thank you for the application for research ethics clearance by the Department of Information Science Research Ethics Review Committee for the above mentioned research. Final approval is granted for 4 years.

**For full approval:** *The application was reviewed in compliance with the Unisa Policy on Research Ethics by the Department of Information Science Research Ethics Review Committee on 11 August 2017.*

*The proposed research may now commence with the proviso that:*

- 1) The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*
- 2) Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the Department of Information Science Ethics Review Committee. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.*



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## APPENDIX 4: LETTER OF INTRODUCTION BY PROMOTER

DEPARTMENT OF INFORMATION SCIENCE  
P O BOX 392  
UNISA  
0003  
TEL: 012 429 6360  
FAX: 012 429 3199  
[ngoepms@unisa.ac.za](mailto:ngoepms@unisa.ac.za)



9 October 2017

Ref: 58553339

### To whom it may concern

This is to confirm that Mrs Tshepho Mosweu, Student Number 58553339 is PhD candidate at the University of South Africa in the Department of Information Science. As part of his studies, he is conducting research on "**Governance of liquid communications generated through social media by Botswana government**". Her research proposal was approved by the Higher Degree Committee in November 2016.

Please grant her approval to conduct research in your organisation. I may mention that she has submitted a completed ethical clearance form at the University of South Africa and her studies has been cleared.

Do not hesitate to contact me if you need further clarity.

Regards

A handwritten signature in black ink that reads "Mpho Ngoepe".

Prof Mpho Ngoepe  
M&D Coordinator: Department of Information Science  
(012) 429 6360  
[ngoepms@unisa.ac.za](mailto:ngoepms@unisa.ac.za)

## **APPENDIX 5: COVERING LETTER FOR THE INTERVIEW GUIDE**

Dear respondent,

I am Tshepho Mosweu, a PhD student at the Department of Information Science, University of South Africa. My research project is entitled “Governance of liquid communication generated through the use of Social media by the Botswana Government”. Liquid communication refers communication generated through an interaction between government and citizens on social media for customer service, access to information and direct community involvement needs. The aim of this research is to examine liquid communication generated by the Botswana government with the view to developing liquid communication governance framework. It my greatest believe that the results and recommendation from this research project will serve as guidance for the government departments in Botswana on the governance of liquid communication generated through social media. This project makes a contribution to the advancement of knowledge on the governance and preservation of liquid communication in the country.

It is on the basis of these reasons that you are kindly invited to take a few minutes and voluntarily participate in this research project by filling out this questionnaire as sincerely as possible. All responses will be treated with utmost confidentiality and used only for academic research purposes and therefore you are not required to write your names. This study conforms to UNISA Research Ethics Policy

If you need further clarification of this, kindly contact the student, Tshepho Mosweu at +267 72264000/[lydhoss@gmail.com](mailto:lydhoss@gmail.com) or the promoter, Professor Mpho Ngoepe at [ngoepms@unisa.ac.za](mailto:ngoepms@unisa.ac.za)

Thank you in advance for your consideration

**APPENDIX 6: INTERVIEW GUIDE FOR BOTSWANA GOVERNMENT  
COMMUNICATION AND INFORMATION SYSTEM OFFICE (BGCIS)**

For this research, social media includes internet platforms designed for participatory interaction: social networking (Facebook), micro-blogging (Twitter), publishing (blogs), and photo/video sharing (Pinterest, YouTube).

Answers to this questionnaire are confidential; all data will be anonymised prior to publication.

**1.0 To examine the legislative, policy and transparency requirements in relation to the governance of liquid communication generated through the use of social media by the Botswana government.**

1.1 Does the Botswana government have a policy on social media usage?

1.2 Please provide a copy of (or link to) the Botswana government's social media policies (e.g. social media policy, terms of use). Are these materials available online? If not, is there a reason why not?

1.3 Please provide a copy of (or link to) the Botswana government's communication plan(s) for social media initiatives.

1.4 Please provide a copy of (or link to) the Botswana government's record policies and guidelines. Does the policy address social media?

1.5 Have there been any events where social media entries were required for legal or other business purposes? How were the entries retrieved and provided for this purposes?

1.6 Was the records management policy revised to address social media? Are social media entries considered or managed as records?

1.7 Please list legislations that support the use of social media in Botswana.

1.8 What risks are associated with the use of social media tools by the government of Botswana? How are they assessed and addressed?

**2.0 To assess the extent to which social media is used by the Botswana government.**

2.1 Roughly what is the extent of usage of the government of Botswana social media today? What services are provided?

2.2 Please comment on the government of Botswana's adoption of social media. When did this occur? Which software products were adopted first?

2.3 What influenced the government of Botswana's decision to adopt or expand their social media efforts? Were there any specific events that led to increased traffic?

2.4 Which social media products/platforms are in use? For what purposes?

2.5 What are the purposes, mandate, and goals of the government of Botswana's social media efforts?

2.6 How is social media used to engage citizens? What challenges exist?

2.7 In general, what are the results of social media adoption?

2.8 What is your most effective social media initiative to date? Please describe.

**3.0 To examine measures put in place to maintain the integrity of liquid communication generated through the use of social media by the Botswana government.**

3.1 Is there a formal, defined process for introducing new record generating systems for social media records? That is, capturing their metadata, and meeting other authenticity requirements, including chain of custody? If yes, which are those?

3.2 What precautionary measures are in place to ensure that social media records remain authentic?

3.3 Are integrity controls of social media records reliably and systematically audited? How is that done? How often is an audit of social media content done? What continuous improvements are normally undertaken?

3.4 Can you say the government of Botswana's initial goals related to integrity of social media records is being met? Do you have established process to ensure its goals for integrity are routinely reviewed and revised?

3.5 How much value does the executives and/or senior management place in the protection of social media records?

3.6 Have you ever had incidents of inappropriate or inadvertent information disclosure or loss incidents? How often have you experienced them?

3.7 Does the government of Botswana have defined, specific goals related to social media records protection? Are the initial goals related to protection have met? Do you have established process to ensure records protection goals are routinely reviewed and revised?

3.8 Who assigns access controls?

**4.0 To investigate how liquid communication generated through social media in Botswana is retained and disposed.**

4.1 Is there any documentation of the processes used to guide the transfer or disposition of social media records in Botswana? If yes, is there a process for suspending disposition in the event of investigation or litigation? Please provide a copy or link of the transfer/disposition guidelines.

4.2 Was the Botswana National Archives and Records Services involved in the development of such documentation? If not, why, since it is the public body entrusted with the management of public sector records?

4.3 Are there any documented social media records retention schedule or policy in Botswana? If yes, are the rules and regulations that define retention identified/centralized? Please provide a copy of the retention schedule/policy.

4.4 Was the Botswana National Archives and Records Services involved in the development of such documentation? If not, why, since it is the public body entrusted with the management of public sector records?

4.5 To what extent is BNARS involved in arriving at decisions related to the retention and disposition of social media records?

**5.0 To establish roles and responsibilities for the management of liquid communication generated through social media in Botswana.**

5.1 Is the government of Botswana's social media accounts maintained by the government of Botswana or it is outsourced? Do staff provide content?

5.2 How are the government of Botswana's social media accounts monitored? Is content removed, and if so, what types of content are removed? Roughly how often do the moderators remove content?

5.3 Does the government of Botswana use tools to keep track of their online presence? What tool(s) are used? What types of information is gleaned from this process, how is it used?

5.4 Does the government of Botswana collect any metrics on social media? What types of information are gleaned from this process, how is it used? Can you provide this data or reports?

5.5 Have there been any cases where a social media product was in use but was abandoned? What can you tell us about this experience?

5.6 How many people work solely on social media efforts? What are their titles and responsibilities? Who do they report to?

5.7 Do other business unit members actively contribute to social media? Is there an approval process for social media initiatives? If yes, how does it work?

5.8 Are these units guided in their activities (i.e. through policies, guidelines, procedure manuals, or training)?

5.9 What other business unit members/government departments are/were consulted regarding social media initiatives (e.g. IT application analysts, records managers, BNARS, DIT, e-government office)?

5.10 What advice on best practices can you provide for governance of liquid communication?

Thank you!

**APPENDIX 7: INTERVIEW GUIDE FOR BOTSWANA NATIONAL ARCHIVES  
AND RECORDS SERVICES (BNARS)**

1. Please comment on the adoption and use of social media in Botswana. When did this occur? What impact has it brought to information governance?

2. What is the mandate of BNARS as far as information governance is concerned in Botswana?

3. What is the role of BNARS in the adoption and use of social media in Botswana government?

4. What infrastructure and resources exist for management of Botswana government's social media accounts?

5. Is there any documented social media policy in Botswana? If yes, are the rules and regulations that define retention and disposition identified/centralised? Please provide a copy of the policy.

6. Does the government of Botswana have a defined process for introducing new record generating systems for social media records? That is, capturing their metadata, and meeting other authenticity requirements, including chain of custody? If yes, which are those?

7. Which legislation and policies are relevant for the management of social media records? Which of these exist in Botswana?

8. Please provide a copy of (or link to) of the record/information policies and guidelines in Botswana. Does the policy address social media?

9. What challenges do you experience with the adoption and use of social media by the Botswana government?

10. What advice on best practices can you provide to the government/other governments who are considering adopting social media?

Thank you

**APPENDIX 8: INTERVIEW GUIDE FOR BOTSWANA COMMUNICATIONS  
REGULATORY AUTHORITY (BOCRA)**

1. Please comment on the adoption and use of social media in Botswana. When did this occur? What impact has it brought to information governance?

2. What is the mandate of BOCRA as far as information governance is concerned in Botswana?

3. What is the role of BOCRA in the adoption and use of social media in Botswana?

4. What infrastructure and resources exist for management of Botswana government's social media accounts?

5. Is there any documented social media policy in Botswana? If yes, are the rules and regulations that define retention and disposition identified/centralised? Please provide a copy of the policy.

6. Does the government of Botswana have defined process for introducing new record generating systems for social media records? That is, capturing their metadata, and

meeting other authenticity requirements, including chain of custody? If yes, which are those?

7. Which legislation and policies are relevant for the management of social media records? Which of these exist in Botswana?

8. Please provide a copy of (or link to) of the record/information policies and guidelines in Botswana. Does the policy address social media?

9. What challenges do you experience with the adoption and use of social media in Botswana?

10. What advice on best practices can you provide for governance of liquid communication?

Thank you!

**APPENDIX 9: INTERVIEW GUIDE FOR DEPARTMENT OF INFORMATION  
TECHNOLOGY (DIT)**

1. Please comment on the adoption and use of social media in Botswana. When did this occur? What impact has it brought to information governance?

2. What is the mandate of the DIT as far as information governance is concerned in Botswana?

3. What is the role of DIT in the adoption and use of social media by the Botswana government?

4. What infrastructure and resources exist for management of Botswana government's social media accounts?

5. Is there any documented social media policy in Botswana? If yes, are the rules and regulations that define retention and disposition identified/centralised? Please provide a copy of the policy.

6. Does the government of Botswana have defined process for introducing new record generating systems for social media records? That is, capturing their metadata, and meeting other authenticity requirements, including chain of custody? If yes, which are those?

7. Which legislation and policies are relevant for the management of social media records? Which of these exist in Botswana?

8. Please provide a copy of (or link to) of the record/information policies and guidelines in Botswana. Does the policy address social media?

9. What challenges do you experience with the adoption and use of social media in Botswana?

10. What advice on best practices can you provide for governance of liquid communication?

Thank you!