

# ***THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT***

## **An Investigation into the Effect of Online Social Networking on Employee Productivity: A Case Study for a South African Government Entity**

**Niresh Amarnath Sewpursad**

Associate Researcher, Academic, Management College of Southern Africa, RSA

**Dr. A. S. Pillay**

Associate Researcher, Management College of Southern Africa, RSA

### ***Abstract:***

*The purpose of this study was to understand the impact that online social networks may have on an employee's productivity within a Government entity as a case study. The entity is juristic person, which has been established by an Act of the South African Parliament, and is responsible for providing appropriate cover to road users within the South African Borders. A literature review conducted on the impact of online social networks on employees showed that there can be both a positive and negative effect from using online social networks*

*The research instrument was a questionnaire drafted to capture responses from approximately 336 employees. The results were analysed using SPSS. The Cronbach's alpha value of 0,859, confirmed that the consistency and reliability of the data was adequate. A quantitative approach to the methodology was chosen, by using a self-administered survey that based on questionnaire using Likert Scale values. The questionnaire was presented to respondents via an online internet survey. This research was specific to a Government entity, and a stratified sample of approximately 336 employees was used. The sample of participants was selected from the various departments of the organisation and comprised the various levels of employees. The sampling technique used was a.....*

*The outcomes of the study showed that there still is uncertainty as to the impact social networks will have on employee productivity. The study did however confirm that. Facebook is still the most popular online social network, and has shown that mobile data and mobile devices are now becoming an essential tool in a way of accessing the online social networks. Many still use online social networks for socialising with friends and there is now a start towards using it for business/networking purposes. The key recommendations emerging were that the Government entity needs to develop an acceptable use policy regarding the use of online social networks, as more than 85% of respondents indicated they access online social networks during working hours via their cell phone. It is also further recommended that the use of online social networks be looked at past the fact that this is a social media tool, but rather look at these online social platforms as collaboration tools and for the sharing of information whether internal or external of the organisation*

*It became clear from the literature review of this study that research into the use of online social networks was lacking. Companies/Organisations need to understand that the new generation of employees regard technology (internet connectivity) and social networking per se as a part of their daily life and is no longer a "nice to have". This channel allows people to communicate, share, learn and interact with each other whether it be on personal level or on a work level.*

### **1. Introduction**

Over the past few years, the so-called online social networking sites have gained widespread popularity. This has led to the creation and preservation of social relationships. Social networking has led to a major shift in the way staff use and engage with the internet and more importantly with others via social networks. With technology becoming a part of employees' daily lives, it is the younger generation particularly who are quick to take up use of such new technologies. With an increased demand for bandwidth and access to online social networking sites within the organisation, it is important that management understands the impact that this increased demand places on resources.

The positives that online social networks present to organisations should be investigated along with the negative consequences, so as to allow informed decisions by organisations in their approach to either use or not to use online social networks or related technologies.

The Government entity is an organisation that is no different to any other type of organisation. The employees have varying literacy skills when it comes to computers and the internet, and many find various means to access the internet, be it during or after working hours. This study looked at the impact on employee productivity if there was a possibility of unrestricted internet access to online social networks.

According to Awolusi (2012:3), the demand for the use of online social networks during working hours has been painted with a negative assumption that productivity will decline, and this assumption over-shadows the positives that social networks can offer organisations. Awolusi (2012:3) also mentions that social networks have become a social and technological innovation that cannot be ignored at the workplace. According to Sarrel (2010) as cited in Awolusi (2012:3), business use of social media has doubled from 11% to 22% between 2008 and 2009. Sarrel (2010) further states that, "Many employees in the workforce now use social networks to attract clients, develop relationships with business partners, and display their expertise."

## 2. Literature Review

Many articles were reviewed during this study, including previous studies on social networks and their impacts on resources. The internet enabled two-way interaction as well as worldwide online social networks where people can interact and collaborate. People enjoy creating a digital identity that supports and enables social interaction in the long term (Dwyer, Hiltz, and Widmeyer, 2008:1).

In the last decade there has been a strong movement towards the creation of online-networked communities (Castells and Cardoso, 2006:6). This emergence can be seen in the move from Web 1.0 to Web 2.0, including the wide range of online applications, from wikis, podcasts, blogs, and social bookmarking, to online social network sites such as Facebook. This rapid growth occurred due to technological advances and the improvement of tools, like mobile devices and computers, as well as social factors, like the youth's increased participation in online social networking (David, 2010:37; Dewing, 2010:2). According to Castells and Cardoso (2006:3), society shapes technology based on people's interests and needs and it is stated that "technology is society".

Boyd and Ellison (2008:211) define online social network sites as "web-based services that allow individuals to construct a public or semi-public profile within a bounded system to articulate a list of other users with whom they share a connection and view and traverse their list of connections and those made by others within the system."

### 2.1. The Transition of the World Wide Web

Choudhury (2014:2) states that Web 1.0 was first implemented in 1989 and lasted until 2005. This was the first implementation of the web. Choudhury (2014:2) further states that Web 1.0 had very little interaction, where users were not allowed to interact with the website. Web 1.0 was referred to as the first generation of the World Wide Web (www) with static pages and content for information purposes only, with no user contribution or interaction possible.

Web 2.0 is the second generation of the web or upgrade to Web 1.0. Choudhury (2014:2) identifies major properties of Web 2.0 like collaborative and distributed practises. It resembles "relationship" technologies, participatory media and a social digital technology. This change allows users more interaction with the World Wide Web, and helps gather collective intelligence.

Choudhury (2014:3) indicates that Web 3.0 is also known as semantic web and was thought up by Tim Berners-Lee, inventor of the World Wide Web. The Semantic Web provides a common framework that allows data to be shared and reused across applications, enterprise, and community boundaries (Choudhury, 2014:3). Table 2.1 below presents a summary of the changes within the web from Web1 to Web3.

Web 1.0	Web 2.0	Web 3.0
Mostly read only	Read-Write	Portable & Personal
Company Focused	Community Focused	Individual Focus
Home Pages	Blogs / Wikis	Life streams
Owning Content	Sharing Content	Consolidating Content
Banner Advertising	Interactive Advertising	Behavioural Advertising
Directories	Tagging	User Behaviour

Table 1: Summary of Web1.0, Web 2.0 and Web 3.0

Source: Interpreted from Aghaei, Farsani and Nematbakhsh (2012:2-10)

### 2.2. Effective Social Networks

The use of social networks is important in modern day business. Many are still left with the question as to whether these social networks add value to organisations or not. Vestal and Lopez (2004:143) mention that organisations contain informal communities, but the recognition of these communities are valuable mechanisms in changing the way social networks are viewed upon today. Van der Merwe (2004:1-13) states that sharing of knowledge has always intrigued researchers in the knowledge management discipline. This sharing is no exception in the current age of continual changes within Technologies and how people communicate and share. Organisations that utilise their employees' knowledge are those that understand what knowledge is, where it lies and how it can be exploited (Van der Walt, 2003:8).

### 2.3. Social Networks in Organisations

About 44% of individuals with internet at work state that the use of the internet helps them to perform in the work environment (Horriagan and Rainie, 2002:2). Technology and globalisation speeds up knowledge sharing between two people, no matter the geographic location. Handzic (2004:144) proposes that knowledge sharing technologies like the internet and online social networks, can provide numerous benefits to modern organisations by sharing knowledge and thus reducing the restrictions associated with distance and time.

#### *2.4. Internet Usage Globally*

According to web site Statista.com (2016), users aged between 18 and 32 are the most active online users who spend on average 7.43 hours online daily. Asia contributes 48.2% of the global internet users with Europe contributing 18%. Africa contributes 9.8% of internet users (internet world stats, 2016).

Statista.com (2016) states that the number of worldwide internet users is expected to reach 2.5 billion by 2018, which will be about a third of the earth's entire population. Statista.com (2016) further mentions that FACEBOOK is the leader in the social networking space and the first to surpass the one billion registered users.

Statista.com (2016) indicates that 70% of Facebook users' logon on a daily basis, giving Facebook a clear leading against the other social networks. According to Facebook Company Information (2016), there were 1.04 billion daily active users on average for December 2015, with 934 million mobile daily active users on average for December 2015, and with approximately 83,6% of daily active users from outside of the US and Canada.

According to Stats SA, the 2015 mid-year estimate of the South African Population stood at 54,96 million citizens (Statistics South Africa, 2015). Forty comma nine percent of South African households had at least one member who has used the internet either at home, work, internet cafes or at places of study. Access to internet per province in South Africa was the highest in Western Cape at 54,4%, followed by Gauteng at 54,0% and Free State at 39,7% (General Household Survey, 2013:54). Globally South Africa is ranked 24th with 24 909 845 internet users (internetlivestats, 2016:1).

Naidoo (2008:1) states that South African businesses have bought into the online marketing campaigns, with 552,000 South African listed as members on users on Facebook. According to Facebook statistics (Business tech, 2015:1), South Africa as at September 2015 has about 12 million monthly active Facebook users, with its African Facebook user population growing by 20% to 120 million active users in June 2015, with the majority using mobile devices.

#### *2.5. Impact of Online Social Networks on Productivity*

##### 2.5.1. Positive Effects

Bartlett and Ghoshal (2002:38) state that value can be found in an organisation by attracting and developing individual employees who have specialised knowledge, but value can also be found in promoting and encouraging the social networks that enable the sharing of knowledge between one another. This form of interaction leads to the formation of a 'Community of Practise.'

Wenger (2014:1) states that a community of practice is formed by people who engage in a process of collective learning, or who share a concern or passion for something they do and learn how to do it better. Bates (2014:1) mentions that communities of practice are not dependent on any particular medium. Learners can have face-to-face meetings either socially or at work, or they can participate in online or virtual communities of practice. In the case of Online Social Networks, a virtual community of practice is formed. Lesser and Storck's (2001:836-839) analysis highlights the following areas (Which areas???) that were impacted by activities of community of practice.

##### 2.5.2. Negative Effects

Perkins (2008) states that social network use is on an increase, and the scope has expanded far beyond the personal realm. Perkins (2008) further mentions that corporate and government entities are increasing their use of social networking to facilitate communications among their internal and external stakeholders.

Perkins (2008) states that although there are clear benefits to communicating using social networks, there are a number of challenges:

- a) Bandwidth and storage consumption
- b) Exposure to malware
- c) Decreased employee productivity
- d) Risk of leaking corporate secrets.

The changes in technology have led to many advances within the social media space. The world has slowly started moving away from a paper based print media to a more electronic means. Today, a user can merely login to their preferred social network platform from anywhere in the world using a vast array of devices, and can only take a few minutes to communicate thoughts and ideas either via a blog or on the profile pages. These social interactions can reach millions of readers within a few minutes across the globe, making online social networks a truly global platform.

It would be thoughtless to only highlight the good from social media. There are many organisations that feel social media has impacted them negatively. According to Jura (2016:1), the government of Tanzania has banned the use of social media and other social networks during working hours, citing that the use of the social networks has affected the productivity of the employees.

The need for using social media in organizations is changing around the world. According to Bhasin (2011:1) the research company Clearswift found that 19% of companies are blocking employee access to social media sites at work, that 59% of managers worldwide reported blocking at least one social network. Bhasin (2011) further iterated that from the six countries studied, Germany at 23% and Australia at 21% were the highest for blocking social sites, while the USA was the opposite, where 30% of companies actively encourage use.

### 3. Methodology

This study set out to gather information from the employees of the Government entity to understand their online social interactions and behaviours. Social networks have gained popularity with employees in many organisations and the Government entity is no exception, with the Government entity taking notice of this trend. The Government entity's ICT department along with senior management of the organisation, just like other organisations has also been filled with scepticism, as to whether the use of online social networks will increase or decrease productivity, and has thus blocked the use of social networks during working hours.

A systematic methodology in collecting data will lead to an easier analysis of the data during the data analysis stage (Salkind, 2014:224). Because there was no data previously collected at the Government entity, the primary data collection methodology was used, as the data collected was specifically used for this research study.

The chosen research instrument for the study was an online self-administered survey questionnaire (See Appendix A). The survey questionnaire was divided into three sections to allow for easy collection and analysis of the data. The questions consisted of closed-ended questions and Likert-scale questions.

The survey questionnaire was divided into three sections which allowed for easier analysis of the gathered information. Section A was designed to collect data on the respondent's background, like demographic information which included their job rank, their office location, the department they work in and their level. Section B was based on data related to the respondents' habits and preferences to online social networks. Section C was constructed with the use of Likert Scale items. The Likert Scale items were based on the collection of responses, which varied from "Strongly Agree" to "Strongly Disagree". Blumberg et al. (2014:418) state that the Likert-scale rating scale shows selected elements of the sample to specify how strongly they agree or disagree with a presented statement. The responses were associated to a numerical scale ranging from 1 to 5.

The exact sampling size of the population selected was made up a total of 400 employees out of a total employee count of 2500. Fifty percent of the sample was targeted to which the survey questionnaire was emailed. From the response rate, approximately 100 responses to the questionnaire were analysed for this study.

A list of employees was identified from the system, with employees being extracted from the various distribution groups within the email system. The list was filtered for any duplicate names (names appearing in more than one distribution group), and these duplicates removed. Thereafter every third name was selected to form part of the survey. A total of 336 employees were selected for the study.

Both descriptive and inferential statistics were used for statistical analysis in this research study. The use of the SPSS statistics software was utilised for interpreting and presenting the results. SPSS is a powerful and easy to use data analysis package (Salkind, 2014:2). Statistical application used was frequency analysis and interpretation of responses to the online survey. The Frequency tables show the count of how many times an event occurs (Greener and Martelli, 2015:78). Hypothesis testing was utilised to statistically analyse the interdependencies of the variables.

A Chronbach Alpha (CA) Coefficient was used to establish the level of internal consistency in the chosen sample. CA provides an estimate of the indicator inter-correlations (Henseler, Ringle, and Sinkovics, 2009). An acceptable measure for CA is 0.7 or higher (Nunnally and Bernstein, 1994).

### 4. Results and Discussion

Section A of the online questionnaire, was based on background information and demographics from the respondents. In questions 1 and 2 under Section A, the respondents were required to indicate their age group as well as their gender, so as to allow the researcher to establish the demographics of the respondents in relation to online access of information.

Figure 1 shows the age distribution of the sample with the highest frequency being the age group of 30-39 years old (44.93%), followed by the age groups of 40-49 years old (31,16%) (n = 138).

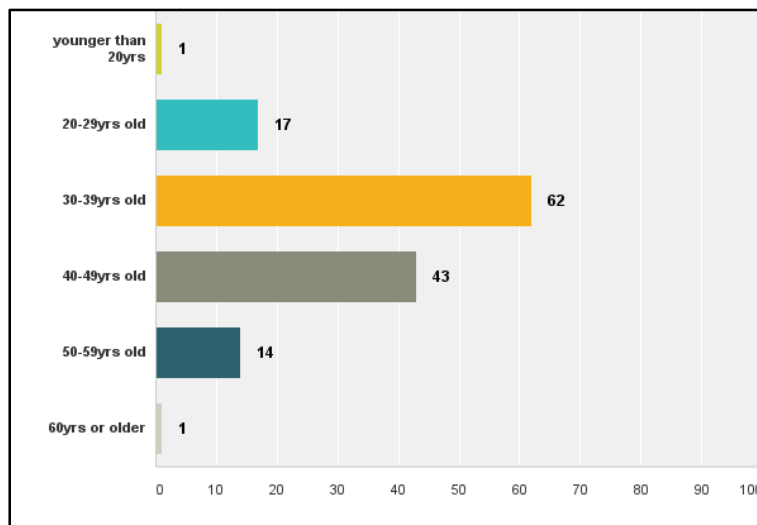


Figure 1: Bar graph of age group distributions

Figure 2 shows the gender breakdown of the sample, with the highest frequency being female (53.62%), followed by males (46.38%).

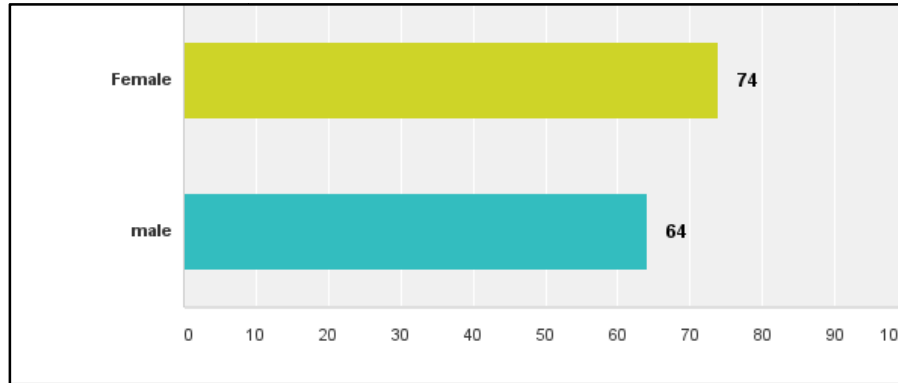


Figure 2: Bar graph of gender distributions

Brandwatch’s (2015:1) study of gender and social network activity indicated that 72% of males and 76% of females were active on social networks worldwide. The results thus show that more females have responded and since more females are active on social networks, females will be the group largely impacted upon by any effects the use of online social networks will have on productivity, if the latter becomes company policy.

Section B of the online questionnaire, explored the respondent’s habits and preferences towards Online Social Networks. This section helped to identify if the respondents use/used Online Social Networks, how much time they spend on these networks, and their use of these networks to enhance productivity.

As can be seen from Figure 3 below, Facebook is the most popular receiving 118 responses, with an almost even spread of responses between Twitter, LinkedIn and YouTube.

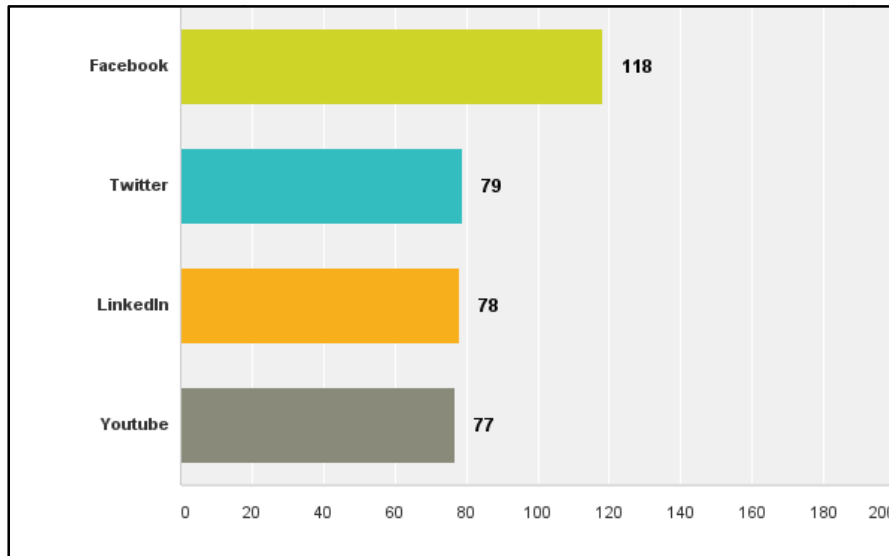


Figure 3: Bar graph illustrating familiar social sites

The likelihood of the respondents visiting the four identified Online Social Networking sites was also determined. Of the respondents, 92% indicated that they visited the mentioned online social networks, with Facebook again being the most popular (77,17%). Figure 4 below shows the response count for visits to the four mentioned Online Social Networks.

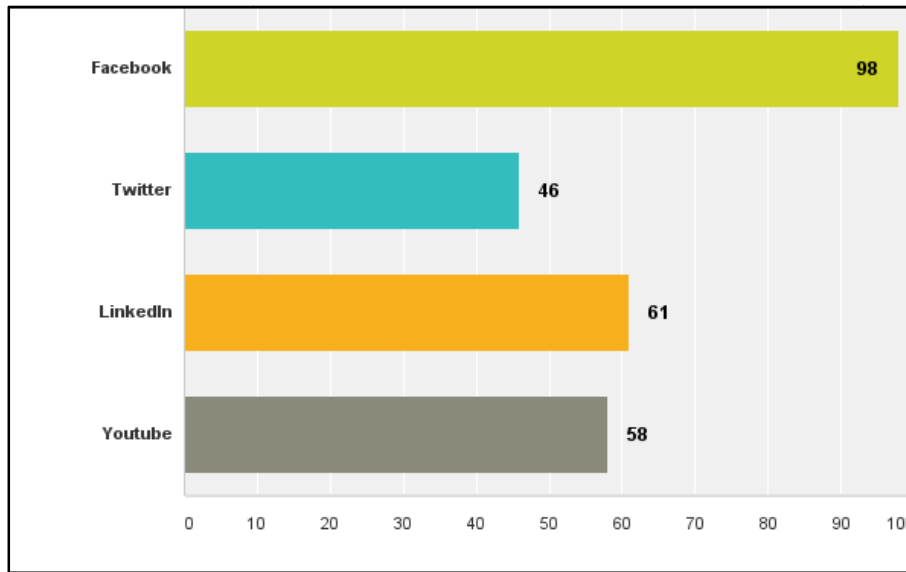


Figure 4: Bar graph illustrating most visited social sites

From the literature review, which stated that Facebook is the leader and the first social network to surpass the one billion registered users mark (statista.com, 2016:1), and the data presented above, once again it can be seen that Facebook is a very popular online social network site.

The next question identified the frequency of the visits by the respondents. The frequency of visits is illustrated in Figure 5 below.

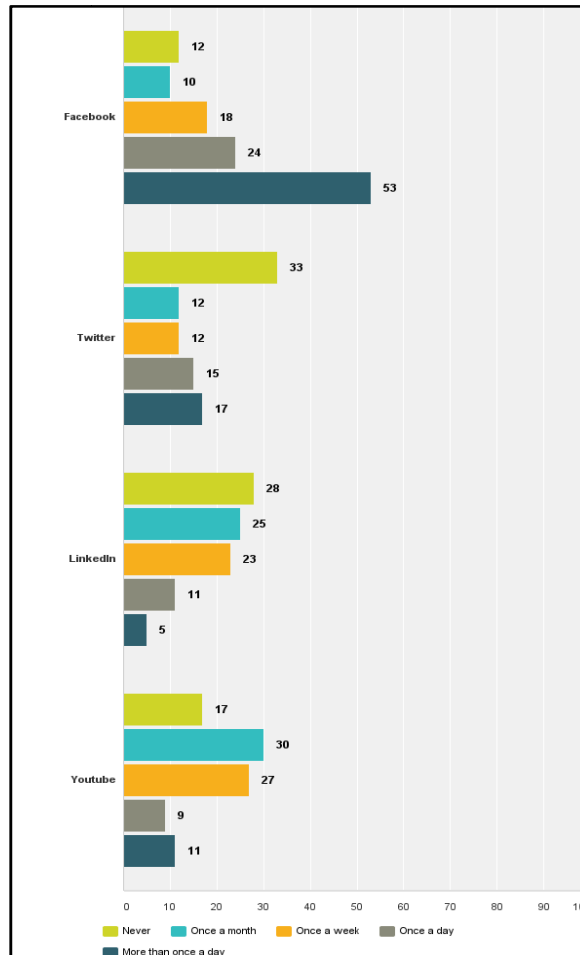


Figure 5: Bar graph illustrating familiar social sites

This response received is in line according to Smith (2016:8) who mentions that 1.09 billion people are active on Facebook daily and on average spend twenty minutes or more per day logged into Facebook. From these 1.09 billion users, just over half a billion (56%) visit Facebook multiple times a day. From the data presented, Facebook is visited the most, with 45,30% of respondents visiting it more than once a day, twitter showing that 37,08% of respondents do not visit it at all, followed closely by LinkedIn which has 30,43% of respondents who also do not visit it at all, and YouTube having a 31,91% response count of being visited once a month. The next question validated from where most of the respondents accessed Online Social Networking Sites, was it from home, office, internet café, or via their cell phone? Figure 6 below illustrates the most common access methods.

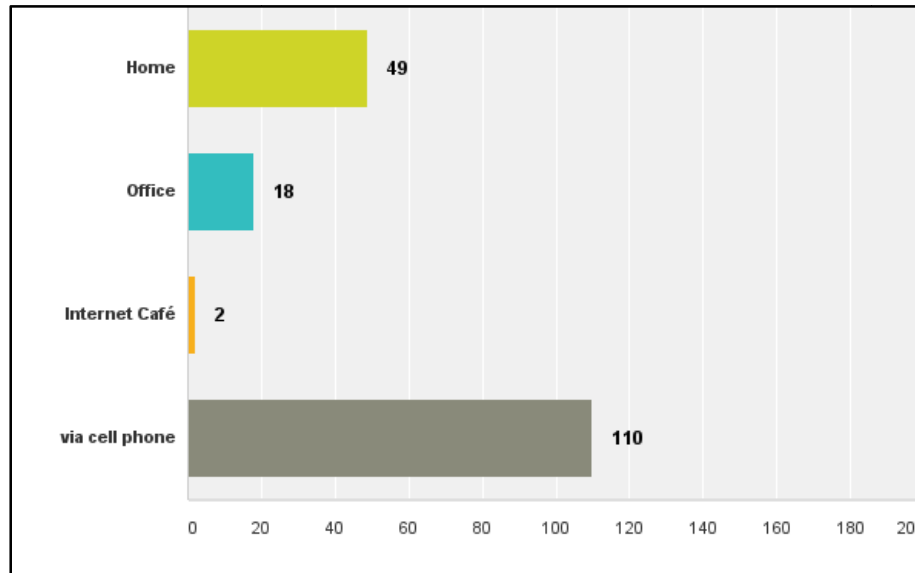


Figure 6: Bar graph illustrating access methods

Figure 6 above illustrates that 86,61% of the respondents' access Online Social Networks via the cell phones, with 38,58% from home and 14,17% from the office. A mere 1,57% make use of internet cafes. The small percentage (14,17%) accessing Online Social Networks from work can be attributed to the fact that the Government entity currently blocks Online Social Networks during working hours, but allows for an hour usage during lunch each day. This small percentage could indicate that the majority of online social network users do not want their usage monitored by the Government entity's ICT department, or could mean that the majority do not want to access these sites via a slow network connection. With the access to online social networks only available during the lunch hour, many users flock to utilise this period to catch up on the latest happenings on the social front or to update their profiles. This increased user activity places the limited available bandwidth under stress and in turn causes delays and slow responses within the Government entity's infrastructure. This is a negative element as to how the use of online social networks can impact negatively on employee productivity.

The enhancements of present day cell phones and smart phones, could attribute to the large percentage (86,61%) of respondents using their cell phones to access Online Social Networks. Instant connectivity and access anywhere means that respondents can also use working hours to visit Online Social Networks, and may lead to various aspects of organisational functionality being influenced. Multi-tasking can be productive, however if multi-tasking increases, there could be negative consequences for productivity (Unknown, 2015:1).

This study was to understand if the use of Online Social Networks did have an effect on employee productivity. The one way to gage this was to understand the usage of the online social networks, as to whether it is used for work purposes or other (Figure 7).

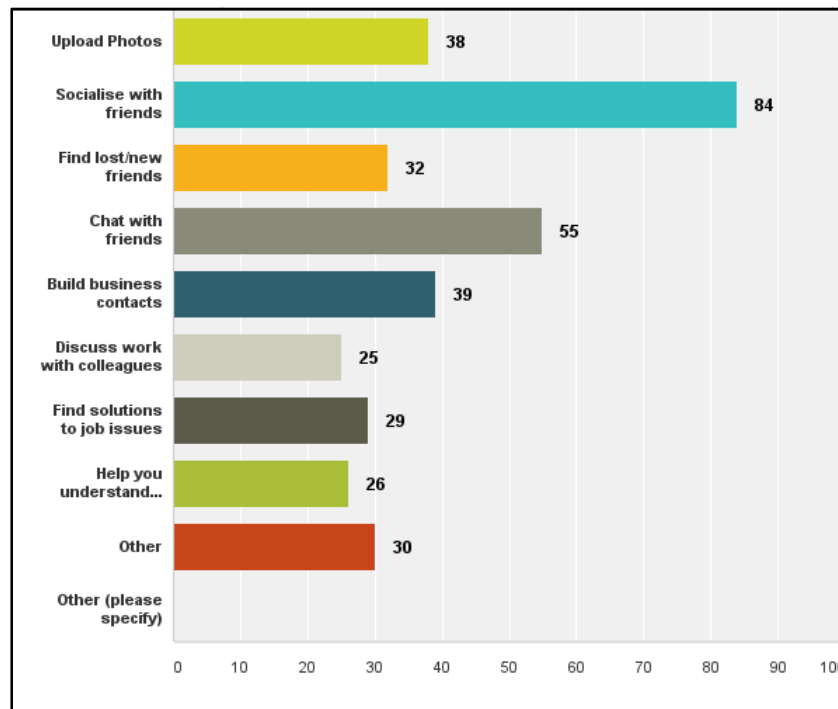


Figure 7: Bar graph illustrating reasons for using Online Social Networks

Figure 7 epitomises the responses as provided by the respondents with regards to reasons for them visiting Online Social Networks. The data identifies that, ‘socialise with friends’ was the main use of the online social networks, with 66,14% of the respondents selecting this as their main reason. ‘Discussion of work with colleagues’ was the least selected with 19,69% stating this reason. From the presented data, it is clear that the respondents rarely use online social networks for proper work/business requirements. The main use is for personal socialising. This already shows that there is no positive influence from using online social networks. This however does not conclude that the use of online social networks by staff will not impact productivity in a positive light as there are respondents that indicated that they use the online social networks for business related socialising.

Section C of the questionnaire aimed to achieve the attitudes of the respondents along with their perceptions with regards to Online Social Networks by posing eight questions which were in the form of a Likert Scale questions/statements. The participants had to respond by answering the eight questions on a scale from Strongly Disagree, disagree, unsure, agree and strongly agree to each question posed. These questions are listed in Table 5.1 below.

1	Online Social Networks helps encourage people to share knowledge and become more productive as employees
2	Online Social Networks lower productivity of an organisations’ employees
3	Online Social Networks help contribute to intellectual property of an organisation
4	Online Social Networks sites are addictive
5	Online Social Networks should be blocked by an organisation
6	Online Social Networks are primarily designed for students and teenagers
7	Email is as effective as using Online Social Networks
8	By having an online social network will help me perform my daily work more efficiently

Table 2: The 8 Likert Scale Questions

From the first question in Section C of the questionnaire (Table 2), respondents were prompted to give their opinion regarding how Online Social Networking helps encouraging the sharing of knowledge. The provided results show that 9,92% of the respondents strongly agreed and 39,67% respondents agreed that Online Social Networking encourages people to share knowledge. Figure 8 below presents the data received from the responses to the eight sub-questions posed.



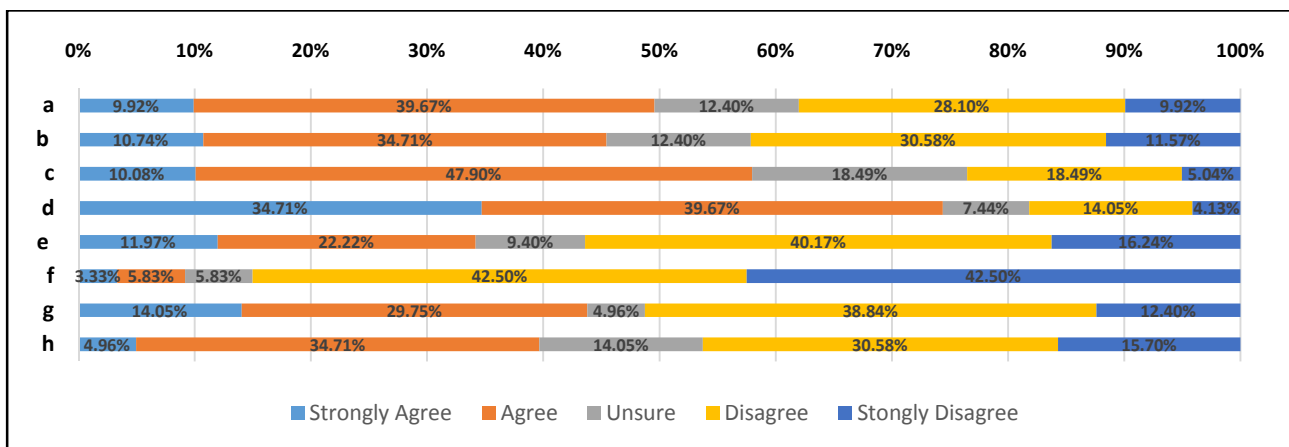


Figure 8: Online Social Networks attitudes and perceptions responses

The results from the Likert-Scale sub-question (a), indicate that 49,59% of the respondents (strongly agree and agree) find value in sharing knowledge and interacting with fellow colleagues to find solutions or answers to job related issues. It can thus be summarised that almost 50% of respondents identify the potential of Online Social Networks.

Sub-question (b), from question 12, allowed respondents to indicate if in their opinion, Online Social Networks lower productivity of employees. From the responses received, it was evident that respondents were divided on this, as 34,71% agreed that Online Social Networks does lower productivity, while 30,58% disagreed with the statement. From the responses in sub-question (a) of the questionnaire, 49,59% of the respondents (strongly agree and agree) find value in sharing knowledge sub-question (b), contradicted this with 45,45% of respondents (strongly agree, and agree) in agreement that Online Social Networks lower productivity of employees.

The next sub-question (c) explored the idea that Online Social Networks contributes to the intellectual property of an organisation. The result from this question shows that 47,90% of the respondents agree and 10,08% strongly agree that Online Social Networks contribute to the intellectual property.

Sub-question (d) explored the statement that Online Social Networks are addictive. The responses received were the most combined received for strongly agree and agree, at 74,38% in agreement that Online Social Networks are addictive. Leading from this finding, it can be inferred that the risk of employees being tempted to spend hours socialising on Online Social Networking sites does exist, which may lead to lower productivity levels. To support this finding, question 10 highlighted that 86,61% of respondents use their cell phone to access Online Social Networks, which means they can always be online and from anywhere, with no access restrictions being placed on them.

'Should organisations block access to Online Social Networks', was investigated in sub-question (e). The results from the respondents to this question shows that 40,17% disagree with this statement and 16,24% strongly disagree. It can be inferred from these responses, that the majority of the respondents reject the idea of the Entity blocking access to Online Social Networks. However, on the other hand, 22,22% agree that Online Network sites should be blocked and 11,97% strongly agree with blocking. This represents a considerable percentage of respondents who see it fit to have the ICT department to block access to Online Social Networking sites.

The government entity blocks access to Online Social Networking sites due to its bandwidth constraints. The Government entity currently runs a virtual cloud with thin client technology, thus making the Government entity highly dependent on its network infrastructure. Any strain to the network causes degraded performance of the network links and this has a direct impact on the provisioning of applications and IT services. The other reason for blocking Online Social Networks is because users were spending too much of time downloading music, videos and malicious software which was virus infected and exploiting the Government entity systems.

Leading from sub-question (e), sub-question (f) was posed, which tested the perception that Online Social Networks are primarily designed for students and teenagers. The overwhelming response to disagree and strongly disagree with such a perception with both being 42,50% shows that the respondents do not feel that Online Social Networks are primarily for students or teenagers. To support this as well, the majority of respondents were from the age group 30-39 years old, making up 44,93% of the respondents, which shows that this group feels that Online Social Networks do not discriminate against age groups through their functionalities and offerings.

Email has been around for a long time. Early email was just an advance of what is known these days as a file directory. It worked by placing a message in another user's directory where it could be read. It worked in a similar way as when one places a note on a colleague's desk (Peter, 2004:1). Peter (2004:1) further states that Ray Tomlinson is credited with inventing email in 1972. Thus if Online Social Networking is compared to email, the former is rather new. Based on this view, sub-question (g) looked at whether email is as effective as using Online Social Networks. Of the responses, 38,84% of disagree and 29,75% agreed that email is as effective as using Online Social Networks.

Sub-question (h), "having an Online Social Network will help me perform my daily work more efficiently" received a combined total of 39,67% in agreement (strongly agree and agree) and with a slight lead with a total of 46,28% who disagree (disagree and strongly disagree). This finding links with the 74,38% who believe that Online Social Networks are addictive, and thus it can be inferred that

by the Government entity having an online social network, may cause employees to become addictive and thus in turn reduce employee performance.

## 5. Conclusions and Recommendations

### 5.1. Conclusions

The primary focus of the study was to investigate the use of online social networks and how these effect the productivity of employees at a Government entity.

From the empirical research as was presented, the identified findings could be of importance to the Government entity which could influence the adoption of Online Social Networks. What was clear from the findings, is that Online Social Networks do have advantages that could benefit the Government entity.

After analysis of the research data, the final outcome based on this research study is that:

- Online social networks have the potential to have a positive impact on employee's productivity at the Government Entity, however there needs to be proper control with policies and processes to govern the use of the social networks at/on the premises when accessed either by company or private connectivity.

Even though the hypothesis tests show that online social networks do not lower employee's productivity at the Government entity, the test also shows that online social networks are addictive and that such networks do not help perform work more efficiently.

These are key findings which show the confusion of the Government entity's staff with regards to the use of online social networks, and also to a certain extent shows scepticism. Firstly, if the social networks are addictive, it means that this could lead to abuse, which in turn will lower an employee's productivity. Secondly, according to Wilson (2015:1), "Social networking sites such as Facebook, MySpace, Twitter and dozens of others allow people to stay in touch like never before. However, some people spend so much time on these sites that it begins to interfere with their lives. Psychologists are referring to this as a social networking compulsion or addiction". Wilson further goes on to state that, "Too much time on the social media can reduce work performance and even lead to job loss", (Wilson, 2015:1). Thirdly, if an employee does not perform work efficiently, this too will lead to poor productivity. With the research showing that the main use of online social networks is to socialise with friends, then there is no evidence to show that employees are going to utilise online social networks for business reasons.

With all data being analysed, there is still however some concern or confusion. From the hypothesis testing results, the following was concluded with a 95% confidence level:

- a) Online social networks do not help encourage sharing of knowledge,
- b) Online social networks do not lower an employee's productivity,
- c) Online social networks do help contribute to intellectual property,
- d) Online social networks are addictive,
- e) Online social networks should not be blocked,
- f) Online social networks are not primarily designed for students and teenagers,
- g) Email is not as effective as online social networks in ensuring a positive impact on productivity,
- h) Online social networks do not help perform work more efficiently.

### 5.2. Recommendations

This research study gave an overview of trends, advantages and disadvantages relating to employees use of Online Social Networks during working hours. It is recommended that the Government entity take into account and consider the possible advantages that may be achieved by implementing the use of Online social networks, and consider the positive effects that social networks may have on the future of the organisation. It is suggested that careful considerations to this study are adhered to formulate a policy, process and strategy around Online Social Networking for employees.

This could be used as a baseline for other government entities and it is suggested that the ICT department implement a pilot project to test the practicality of running Online Social Networks which will help determine the needs of the employees as well as to identify possible risk areas of a company-wide social network rollout. With the current bandwidth constraints, this pilot exercise shall present useful data around network traffic and the implications of such on the ICT infrastructure.

A further recommendation is that an acceptable policy-use regarding Online Social Networking is developed. This is crucial as 86,61% of respondents indicated that they access online social networks via their cell phone, with the majority of the respondents accessing social networks more than once a day. This implies that respondents access these social networking sites during working hours. The policy will act as a supporting guide for the use of social networks by the employees.

A further recommendation is that the Government entity consider the use of online social networks to help promote the brand and company image by sharing of information and in turn improving services.

Another recommendation is the consideration of using online social networks to facilitate open communication between management and employees and between employees themselves. This can lead to information discovery and delivery.

Seeing as employees have indicated that Facebook is the most popular and most accessed online social site, with the majority of respondents stating that they access social sites via their cell phones, it is also recommended that the entity allows access to social networking sites at various intervals during the work day, so as to limit the impact on the infrastructure. This would limit bandwidth congestion and in turn would satisfy to some extent the employees' addiction to using social networking sites. This approach thus

brings some balance and allows employees to work during the day with allowances for predefined timeslots to engage in their online social activities, thus leading to happier employees and productive employees. According to Stillman (2014), employee productivity can increase by 10% if an employee is happy.

## 6. Conclusion

The study was undertaken to find out if the use of Online Social Networking impacts on employee's productivity at a Government entity. Even though the study is not conclusive enough, there are positive benefits that can be derived from using Online Social Networks. This however has to be managed via policies and procedures if it is to be implemented. The data collected and analysed reflects that the respondents who are employees of the Government entity are also indecisive on their responses. From the data, 45,45% of employees agree that online social networks lowers employee's productivity, and 74,38% agree that online social networks are addictive, while 56,41% disagree that online social networks should be blocked. To get a clearer picture and more viable results, a mixed method (quantitative and qualitative) research should be conducted, as this allows for more diverse responses and opinions, and will provide a better understanding of respondents online social needs and use.

## 7. References

- i. Aghaei, S., Farsani, H.K., and Nematbakhsh, M.A. (2012). Evolution of the World Wide Web: From Web 1.0 to Web 4.0, 3(1), p. 2-10.
- ii. Awolusi, F. (2012). The Impacts of Social Networks Sites on Workplace Productivity. *Journal of Technology Management, and Applied Engineering*, 2(6), p. 3-4.
- iii. Bates, T. (2014). The Role of communities of practice in a digital age. [Online] Available at: <http://www.tonybates.ca/2014/10/01/the-role-of-communities-of-practice-in-a-digital-age/> [Accessed 04 March 2016]
- iv. Bartlett, C.A. and Ghoshal, S. (2002). Building competitive advantage through people. *MIT Sloan Management review*, p. 33-24
- v. Bhasin, K. (2011). Business Insider: Companies around the world are banning social media sites at work more than ever. [Online] Available at: <http://www.businessinsider.com/companies-social-media-ban-clearswift-2011-9> [Accessed 29 January 2016].
- vi. Blumberg, B.F., Cooper, D.R. and Schindler, P.S. (2014). *Business Research Methods*. 4th ed. Berkshire: McGraw-Hill.
- vii. Boyd, D.M. and Ellison, N.B. (2008). Social Network Sites: Definition, History, and Scholarship. *Journal of Computer-Mediated Communication*, vol. 13, p. 210-230.
- viii. Brandwatch. (2015). Men vs. Women: Who is more active on social media? [Online] Available at <https://www.brandwatch.com/2015/01/men-vs-women-active-social-media/>
- ix. BusinessTech. (2015). Facebook reveals user numbers for South Africa [Online] Available at: <http://businesstech.co.za/news/internet/98085/facebook-reveals-user-numbers-for-south-africa/> [Accessed 02 March 2016].
- x. Castells, M. and Cardoso, G. (2006). The network society: from knowledge to policy. [Online] Available at [http://www.umass.edu/digitalcenter/research/pdfs/JF\\_NetworkSociety.pdf](http://www.umass.edu/digitalcenter/research/pdfs/JF_NetworkSociety.pdf) [Accessed 10 February 2016]
- xi. Choudhury, N. (2014). World Wide Web and Its Journey from Web 1.0 to Web 4.0, *International Journal of Computer Science and Information Technologies*, vol. 5, p. 2-5.
- xii. David, J.C. (2010). New Friend Request: The Relationship between Web 2.0 and Higher Education. *Journal of Student Affairs*, vol. xix, p. 37-43.
- xiii. Dewing, M. (2010). Social Media 1. An Introduction. Background paper, Library of Parliament, Ottawa, Canada, no. 2010-03-E. [Online] Available at: <http://www2.parl.gc.ca/Content/LOP/ResearchPublications/2010-03-e.pdf> [Accessed 09 February 2016].
- xiv. Dwyer, C., Hiltz, S.R. and Widmeyer, G. (2008). Understanding Development and Usage of Social Networking Sites: The Social Software Performance Model. Proceedings of the 41st Hawaii International Conference on System Sciences. [Online] Available at: <http://www.computer.org/portal/web/csdl/doi/10.1109/HICSS.2008.476> [Accessed 10 February 2016].
- xv. Facebook. (2016). Newsroom, Company Information. [Online] Available: <http://www.newsroom.fb.com/company-info/> [Accessed: 14 February 2016].
- xvi. Greener, S., and Martelli, J. (2013) *An Introduction to Business Research Methods*. 2nd Edition.
- xvii. Handzic, M. (2004). Knowledge Management through the Technology Glass. World Scientific Publishing Company, p. 144.
- xviii. Henseler, J., Ringle, C., and Sinkovics, R. (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing*, p. 277-319.
- xix. Horriagan, J.B. and Rainie, L. (2002). Getting Serious Online. [Online] Available at: [http://www.pewinternet.org/pdfs/PIP\\_Getting\\_Serious\\_Online3ng.pdf](http://www.pewinternet.org/pdfs/PIP_Getting_Serious_Online3ng.pdf) [Accessed 03 March 2016].
- xx. Interlivestats. (2016). Rankings of Country per internet users. [Online] Available at <http://www.internetlivestats.com/internet-users-by-country/> [Accessed 22 February 2016].
- xxi. Internetworldstats. (2016). Internet users worldwide. [Online] Available at: <http://www.internetworldstats.com/stats.htm> [Accessed 22 February 2016].

- xxii. Jura, J. (2016). The Star Newspaper, Kenya: Tanzania civil servants banned from using social media at work. [Online] Available at: [http://www.the-star.co.ke/news/2016/03/10/tanzania-civil-servants-banned-from-using-social-media-at-work\\_c1310242](http://www.the-star.co.ke/news/2016/03/10/tanzania-civil-servants-banned-from-using-social-media-at-work_c1310242) [Accessed 10 March 2016].
- xxiii. Lesser, E.L. and Storck, J. (2001). Communities of practice and organizational performance. *IBM Systems Journal*, Vol. 40 No. 4 p. 836-839
- xxiv. Naidoo, D. (2008). Social networking trends in South Africa. [Online] Available at: <http://www.ngopulse.org/article/social-networking-trends-south-africa> [Accessed 30 January 2016].
- xxv. Nunnally, J. C., and Bernstein, I. H. (1994). *Psychometric theory*. New York, NY: McGraw Hill. p. 1-5
- xxvi. Perkins, B. (2008). The Pitfalls of Social Networking. [Online] Available at: <http://www.computerworld.com/article/2551696/it-management/the-pitfalls-of-social-networking.html>
- xxvii. Peter, I. (2004). The History of Email. *History of the Internet*. [Online] Available at <http://www.nethistory.info/History%20of%20the%20Internet/email.html> [Accessed 29 May 2016]
- xxviii. Salkind, N. J. (2014). *Exploring Research*. 8th ed. Essex: Pearson.
- xxix. Smith, G. (2016). By the Numbers: 200 Surprising Facebook Statistics. [Online] Available at: <http://expandedramblings.com/index.php/by-the-numbers-17-amazing-facebook-stats/8/> [Accessed 29 June 2016].
- xxx. Statista. (2016). Number of internet users worldwide. [Online] Available at: <http://www.statista.com/statistics/273018/number-of-internet-users-worldwide> [Accessed 22 February 2016].
- xxxi. Statistics South Africa. (2013). Mid Year Estimate of South African Population. [Online] Available at: <http://www.statssa.gov.za/publications/P0318/P03182013> [Accessed 25 February 2016].
- xxxii. Stillman, J. (2014). Happy employees are more productive employees. [Online] Available at <http://www.inc.com/jessica-stillman/happy-employees-are-more-productive-employees.html> [Accessed] 24 August 2016.
- xxxiii. Unknown. (2015). The high cost of multitasking. [Online] Available at <https://www.wrike.com/blog/high-cost-of-multitasking-for-productivity/> [Accessed 20 June 2016].
- xxxiv. Van der Merwe, A., (2004). Managing intranets to improve knowledge sharing. *South African Journal of Information Management*, vol 6, p. 1-13
- xxxv. Van der Walt, C., (2003), 'Knowledge sharing via enterprise intranets', unpublished Masters dissertation, University of Johannesburg.
- xxxvi. Vestal, C.W. and Lopez, K. (2004). *Best Practices: Developing communities that provide business*, p143
- xxxvii. Wenger, E. (2014). *Brief introduction to communities of practice*. Cambridge University Press. p. 1.
- xxxviii. Wilson, L. (2015). *Social Media Addiction*. [Online] Available at <http://drlwilson.com/ARTICLES/ADDICTION,%20SOCIAL%20M.htm> [Accessed 22 June 2016]

## Annexure A: Questionnaire as Published

An Investigation into the effect of online social networking on employee productivity.

Section A: This section contains questions regarding respondent's background information

\* 1. Please select the age group that you belong to?

younger than 20yrs

20-29yrs old

30-39yrs old

40-49yrs old

50-59yrs old

60yrs or older

\* 2. Please select your gender.

Female

male

\* 3. Please select your position type

Permanent

Contractor

Student/Intern

\* 4. Please select the department in which you work for

Internal Audit

Marketing and Comms

Human Capital

ICT

Strategy, Risk and Compliance

Business Operation

Facilities

Finance

Other

\* 5. Please select your office location.

Ecogilades (HO)

Menlyn (Pretoria)

Johannesburg

Cape Town

Durban

East London

Other

\* 6. Please select your task grade at the RAF.

Task 1-13

Task 14-16

Task 17-18

Task 19-20

Task 21-24

**Section B: This section contains questions regarding the respondent's habits and preferences.**

**\* 7. Below are the four most common online social network sites in South Africa. Which of the below are familiar to you?**

Facebook  
 Twitter  
 LinkedIn  
 Youtube

Name any other online social network sites you are aware/familiar with.

**\* 8. Which of the online social network sites do you visit?**

Facebook  
 Twitter  
 LinkedIn  
 Youtube

**\* 9. How often do you visit the below mentioned sites?**

	Never	Once a month	Once a week	Once a day	More than once a day
Facebook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Twitter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LinkedIn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Youtube	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**\* 10. Where do you access the social networks from?**

Home  
 Office  
 Internet Café  
 via cell phone

**\* 11. Why do you use social networks?**

Upload Photos  
 Socialise with friends  
 Find lost/new friends  
 Chat with friends  
 Build business contacts  
 Discuss work with colleagues  
 Find solutions to job issues  
 Help you understand concepts related to your job  
 Other

**Section C: This section will contain questions regarding the respondents' attitudes and perceptions**

**\* 12. Please indicate to what extent do you agree or disagree with the statements below**

	Strongly Agree	Agree	Disagree	Strongly Disagree	Unsure
Online Social Networks helps encourage people to share knowledge and become more productive as employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online Social Networks lower productivity of an organisations' employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online Social Networks help contribute to intellectual property of an organisation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online Social Networks sites are addictive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online Social Networks should be blocked by an organisation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online Social Networks are primarily designed for students and teenagers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Email is as effective as using Online Social Networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
having an online social network will help me perform my daily work more efficiently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>