

# ODL STUDENTS AND THE USE OF SOCIAL MEDIA NETWORKING SYSTEMS AS AN EDUCATIONAL TOOL: CAN LECTURERS STAY CONNECTED

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## Abstract

The use of technology in education is not a fad anymore- it is real and happening at a fast pace. Students are expecting lecturers to become more and more adept at using technology and to make use of the media available to transfer knowledge. Therefore, lecturers in all tertiary institutions have to become more and more adapted in the use of technology. In many instances there is a disconnection between the expectations of these two groups and the main aim of this study was to investigate lecturers' perceptions on the use of social media networking systems in the transfer of knowledge, at an open distance learning (ODL) tertiary institution. The study also investigated whether lecturers feel at ease when using social media networking systems, whether they will be able to find information on these social media networking systems and whether they believe it will be an effective and easy way to present course content. These aspects were tested by making use of the Technology Acceptance Model (TAM) constructs namely; 'Perceived ease of use', 'Perceived usefulness', 'Attitude towards using', and 'System accessibility'. A survey was distributed to lecturers, and it was found that lecturers regarded 'Perceived ease of use' as being the most important factor to consider when they are using social media networking systems.

**Keywords:** ODL, Social Media, Social Media Networking Systems, Teaching, Education

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## 1. Introduction and objectives of the study

Since the late 1990's, and especially since the new millennium, the advances in technology have escalated at an alarming pace. Hardly a day goes by that a new application or new technologies have not been discovered. In the realm of education this is just as true. The days of a one dimensional offering of knowledge to a passive audience, is long gone. Today's student is more informed and technology savvy than at any time in the past, and with the advances in technology measured in days and not years, this pace of change is accelerating. By implication this means that lecturers also need to keep abreast of these changes and adapt their teaching methods to stay in touch with their students' demands. The use of internet-based social media networking systems have enabled companies, consumers, institutions and many more to communicate more effectively and in real time with hundreds, even thousands of other people around the world about a specific topic, product or issue at any point in time (Mangold & Faulds, 2009: 357). Social media

networking systems are not only new delivery tools to companies, but it also makes it easier for tertiary institutions to communicate topic specific information on course work to their students, and to stimulate dialogue between and among students and to address administrative issues (Moran, Seaman & Tinti-Kane, 2011: 4; Adamson, 2012). Shen, Laffey, Lin and Huang (2006: 270) further indicate that online learning through means of various social media networking systems have become a very common educational format to use by both lecturers at tertiary institutions and their students around the world, due to its flexibility of time and place. Social media networking systems have the ability to enable lecturers and students to collaborate and share information at any time convenient to them and from any place in the world (Adamson, 2012). Conversely this can also be a stumbling block as it impacts on the social time of lecturers, their ability to monitor large volumes of enquiries, and time differences between countries and regions.

Adamson (2012) is of the opinion that social media networking systems might change the focus of

education from a single student to a group of students, but that students' individual learning experience is enhanced through collaboration and informal learning with their peers. However, according to Picardo (2011:1), it is a potential threat that the use of social media networking systems in the tertiary institution can lead to a loss of control for many lecturers as they experience social media networking systems as being highly disruptive. This may be attributed to the fact that students are more familiar with using different social media tools than the lecturers (Picardo, 2011:1). In the future, new and younger lecturers may not experience these problems as they are part of the digital and electronic age.

King, Duke-Williams and Mottershead (in Picardo, 2011) argued that one can expect some resistance from lecturers in the adoption of social media networking systems mainly as a result of their lack of use, exposure and knowledge of these media systems. There may also be some level of resistance to change. This may have an impact on the use of social media networking systems in the transfer of knowledge in education, and it is important to establish the opinion of lecturers in this regard as opposed to the views of students.

The purpose of this study is to determine lecturer's perceptions on the use of social media networking systems in the transfer of knowledge at an open distance learning (ODL) tertiary institution. The following was specifically researched:

- To determine the perception of lecturers on the effectiveness of social media networking systems as a lecturing tool.
- To establish to what extent social media networking systems is utilised by lecturers.
- To investigate the relationship between social media networking systems as a lecturing tool and the private use of social media networking systems by students.

The following section gives an overview of social media networking systems, the different types of social media networking systems, as well as a review of the influence thereof on lecturers and students. The empirical findings and the discussion of the findings appears in the latter part of the paper.

## **2. Overview of social media networking systems**

### **2.1. Defining social media**

Social media is defined by Boyd and Ellison (2008:211) as, "... web-based services that allow individuals to construct a public or a semi-public profile within a bounded system, 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". Mangold and

Faulds (2009:357) on the other hand define social media or 'consumer-generated media' as, "... a variety of new sources of online information that are created, initiated, circulated and used by consumers intent on educating each other about products, brands, services, personalities and issues".

It is clear from these definitions that social media networking systems include various online, and word-of-mouth forums which also includes blogs, company-sponsored discussion boards and chat rooms, consumer-to-consumer email, consumer product or service ratings websites and forums, internet discussion boards and forums, moblogs (sites containing digital audio, images, movies, or photographs), and social networking websites, only to name a few (Mangold & Faulds, 2009:358).

According to Larson (2012) the five most popular social media networking systems used and accepted in the market are; Facebook with 901 million users, Twitter with 555 million users, Google+ with 170 million users, LinkedIn with 150 million users and lastly Pinterest with 11.7 million users. Given the importance and relevance of these different social media networking systems, a brief discussion of each is given below.

### **Facebook**

Facebook is a social media networking system which was originally developed for tertiary students. Today it is open for any individual older than 13 years of age. Facebook enables their users to create and modify their own profiles with photos, videos and information about themselves. Facebook friends have the ability to browse the profiles of other friends, as well as write messages to them (Tech terms, 2008).

Facebook is a one-way communication form and it is a very effective tool to use for sharing information, as well as collaborating with students from a safe distance. Facebook groups do not require their members to be friends with each other and the members of the group can easily and immediately swap and upload files, links, articles, information and videos at no cost. A facebook page can, for example, be used as a central page for students and lecturers to share and discuss information (The Guardian, 2013).

### **Twitter**

Twitter is a micro-blogging application that can be described as a combination of instant messaging and blogging. It has established itself as an effective tool for communicating news, market trends, questions and answers, as well as sharing photos, videos and links with many benefits for both business and personal use (Social Media Defined, 2008).

Some lecturers in tertiary institutions have managed to set-up subject or class Twitter accounts that students can follow. Lecturers can tweet information relevant to their subjects and they can

even tweet homework or reading work to their students following them (The Guardian, 2013).

### **Google+**

Google+ is a social networking system from Google that is presently an invitation-only service that offers functionality and many features that is comparable to Facebook (PCMAG, 2013). Google+ has developed and introduced *Circles* which is used to share information among different groups of people, *Sparks* which is used to offer videos and articles, and *Hangouts* which is used for video chatting with a friend or group of friends, together with other unique features (Webopedia, 2013).

According to WikiHow (n.d.), the many features (*Circle*, *Sparks* and *Hangouts*) that are offered by Google+ are of great value for lecturers teaching at institutions that are located at a distance from their students. The reason for this is that Google+ *Hangouts* is a tool that is created in order to reduce the travel-strain in the teaching processes. The time can then be used by lecturers to carry out more virtual classrooms at more places. Therefore, Google+ enables institutions to teach more students with fewer lecturers, in that way saving costs, as well as placing institutions in a position to reward lecturers in more effective ways. The main benefit of Google+ *Hangouts* is that it enables lecturers to teach to ten classrooms simultaneously.

### **LinkedIn**

LinkedIn is a social networking website that is aimed at business professionals. It allows people to share work-related information with other users, as well as to keep an online list of other professional contacts (WhatIs, 2013). LinkedIn also allow their users to create a profile page. The only difference is that a LinkedIn profile is created based on a business focus, instead of on a personal focus. In other words, a LinkedIn profile highlights education and past work experiences, almost the same as a resume. The profile also enables other users to see the connections list of each other, as well as the recommendations that are made to or received from other users (Tech Terms, 2010).

### **Pinterest**

Pinterest is a social media website that enables users to organise and share images, quotes and videos from around the web (Walker, 2013). Images that are uploaded by users/pinners are called Pins and can be organised onto pinboards that are customised, themed and followed by other users. Users/pinners are allowed to like or re-pin images, videos and quotes that is shared by other users. Pinterest is very similar

to Twitter, as any pinner/user can follow another (TechoPedia, 2013).

According to The Guardian (2013), Pinterest is becoming very popular as a virtual pinboard. It is a very effective way to share web resources that both students and lecturers might find interesting or relevant. Pinterest enables lecturers to make different pinboards by creating different categories that students can find useful and the other way around.

### **Youtube**

YouTube is a video sharing service that enables users to watch videos that are posted by other users, as well as upload their own videos. All uploaded videos on YouTube appear on the YouTube website and can also be posted on other websites, although the original files are hosted on the YouTube server (PCMAG, 2013).

The YouTube service was originally designed for ordinary people who want to publish videos that they have created themselves. However, a number of companies and organisations also use YouTube to promote their businesses (Tech Terms, 2009). People also use YouTube to post instructional videos for instance step-by-step and do-it-yourself guides, educational information lessons, power point presentations and other how-to videos (Tech Terms, 2009).

According to Adamson (2012) social media networking systems are an important tool for learning and should be used for this purpose more extensively. Due to the fact that both students and some lecturers are familiar with social media networking systems they should take advantage of this and use social media networking systems as a platform for communication, learning and collaboration, as well as sharing ideas and topics of interest (Adamson, 2012). In order to use social media networking systems effectively both lecturers and students should be aware of the benefits of social media networking systems. By doing this, it will enable them to communicate with each other on a more effective, flexible and faster way (Laffey *et al.*, 2006: 270).

## ***2.2. The use and benefits of social media networking systems***

According to Jackson (2011), the use of social media networking systems in classrooms can have a positive psychological effect on students. As soon as students were allowed to answer questions by means of using, for example Twitter, they felt less pressured even though the answer was wrong.

Table 1 below summarises the ways in which social media networking systems can be implemented in teaching, as well as the benefits thereof.

**Table 1.** Uses and benefits of social media networking systems

Type of Social Media System	Description of use and benefits
<b>Facebook</b>	<ul style="list-style-type: none"> <li>• Improve communication by enabling students to easily contact lecturers and other students with questions</li> <li>• Easily integrate class projects with Facebook through the sharing of books, reviews and promoting student work</li> <li>• Use Facebook applications and groups in order to make learning and studying easier and more enjoyable for students</li> <li>• Create a Facebook page where you can schedule events, post notes and remind students of important dates and due dates</li> <li>• Be a news source by posting status updates and follow other media and well-known leaders</li> </ul>
<b>Twitter</b>	<ul style="list-style-type: none"> <li>• Post additional materials such as links to articles and videos in order for students to continue with their learning even if classes are over</li> <li>• Setting-up specific feeds to enable all students to see and monitor certain events</li> <li>• Develop a feed for your students in order to tweet about important dates, upcoming events and assignments, as well as class news</li> <li>• Connect with other students, lecturers, as well as parents in order to increase communication and build community</li> <li>• Follow tweets of other lecturers in order to keep up with the latest teaching trends, to get ideas and to support one another</li> <li>• Share ideas and collaborate with lecturers and students from other classes, schools and departments</li> </ul>
<b>Pinterest</b>	<ul style="list-style-type: none"> <li>• Use community boards for group projects, as well as brainstorming to enable a number of users to save their resources in one place</li> <li>• Allow and encourage students to use Pinterest for presentations and projects</li> <li>• Search for inspiring tips on how to organise and decorate your classroom</li> <li>• Search, find, pin and organise images, projects, videos, stories <i>etc.</i> for future classes and projects</li> </ul>
<b>YouTube</b>	<ul style="list-style-type: none"> <li>• Search for video-clips under specific topics that can be used in the classroom to give a lesson in a more memorable way</li> <li>• Organise playlists to enable students to easily find and watch all relevant and approved videos on a topic</li> <li>• Record lessons and post them on YouTube in order for students to review them whenever they want to</li> <li>• Create interactive videos by adding quizzes, comments <i>etc.</i> to it</li> </ul>

Source: Lepi, K. 2012. 25 Ways teachers can integrate social media into education. [Online] Available from: <http://edudemic.com/2012/07/a-teachers-guide-to-social-media/> [Accessed: 13-02-2013].

According to Picardo (2011) students' perceptions and use of technology will play a part in the use or absence of social media networking systems in tertiary institutions. The question still to be answered is; 'Do students wish to interact with their lecturers online?' The answer to this question may be more complex than it initially appears to be, as the participation of students in a social media networking system should be voluntary in order to ensure that the necessary quality of interaction and cooperation is obtained in order to improve teaching and learning (Picardo, 2011).

Picardo (2011) further argues that social media networking systems challenge the ability of both lecturers and students to interact and collaborate successfully via this medium, meaning that when it comes to academia students do not feel comfortable

with the degree of transparency needed in order for the social media networking systems to be effective.

In order to determine the students' perceptions on the use of social media networking systems in tertiary institutions (higher education), the five constructs of the Technology Acceptance Module was studied. These are discussed in the next section.

### **2.3. Technology Acceptance Model**

The Technology Acceptance Model (TAM) is an information system (a system that consists of all the network communication channels used within an organisation) theory that demonstrates how users accept and use specific technology (Davis, 1993:475). The model indicates that when users are confronted with a new software package, various factors influence their decision about how and when they will

use this specific technology (Mazhar, 2006). Davis, Bagozzi and Warshaw (1989:985) indicated that user motivation can be explained by three constructs; 'Perceived ease of use', 'Perceived usefulness', and 'Attitude toward using the system'.

The first construct is 'Perceived usefulness' which is described according to Davis (1993:477) as, "... the degree to which an individual believes that using a particular system would enhance his or her job performance". The second construct which is 'Perceived ease of use' is defined as, "... the degree to which an individual believes that using a particular system would be free from effort" (Davis, 1993:477). The third construct is 'Attitude towards using' and is defined as, "... the degree of evaluative affect that an individual associates with using the target the target system in his or her job". The last construct that was being tested, was that of 'System accessibility' which refers to organisational context variables.

These constructs were imbedded in the research study. The next section deals with the research methodology and the findings of the research.

### 3. Research methodology

In determining the perceptions of lecturers on social media, a questionnaire was developed for this study. The questionnaire mostly incorporated questions that are of quantitative nature.

The questionnaire was issued to lecturers of a leading South African university. A total of 204 questionnaires were obtained, not all respondents completed the demographic section.

The demographic profile of the respondent group is presented in Table 2. The majority of lecturers (41.92 %) were between 26 and 35 years of age. The gender split for the respondent group is female dominated, with 55 per cent of lecturers being female. Most of the respondents are White (61.73 %).

**Table 2.** Demographic profile

Age group	% of Total	N
< 35 years	46.46%	92
36 - 50 years	33.33%	66
51+ years	20.20%	40
<b>Gender</b>		
Male	44.67%	88
Female	55.33%	109
<b>Ethnic group</b>		
African	29.59%	58
Coloured	2.55%	5
Indian	6.12%	12
White	61.73%	121

## 4. Results

### 4.1 Lecturers' perceptions on social media networking systems as a lecturing tool

To determine the perceptions lecturers had of social media networking systems, respondents were asked to rate 21 statements on a seven point Likert scale (1 being "Strongly disagree" and 7 being "Strongly agree").

The 21 statements are structured as five sub-constructs:

- 'Perceived ease of use': statements 1 to 5
- 'Perceived usefulness': statements 6 to 10
- 'Attitude towards using': statements 11 to 15
- 'Intention to use': statements 16 to 20
- 'System accessibility': statement 21

Table 3 below represents the first construct- 'Perceived ease of use'.

**Table 3.** 'Perceived ease of use'

	Statement	Strongly Disagree	2	3	4	5	6	Strongly Agree	Mean
		% of Total							
1	Social network systems is easy to use	5.97	1.49	6.97	14.43	18.41	34.33	18.41	5.14
2	Easy learning to use social network systems	2.49	1.99	2.99	9.95	20.90	33.83	27.86	5.58
3	Interaction with social network systems is clear and understandable	6.00	2.00	8.50	12.50	22.50	29.00	19.50	5.09
4	Easy to find information on social network systems	5.00	2.50	8.00	15.00	27.00	25.00	17.50	5.02
5	Easy to become skillful at using social network systems	1.99	1.99	6.47	12.44	25.37	33.33	18.41	5.31

Most respondents agreed or strongly agreed with the statements by marking 5, 6 or 7 this is also shown by the averages varying from 5.02 to 5.58, few respondents strongly disagreed. All the measurements of 'perceived ease of use' were agreed upon by the respondents. Considering the averages (for ranking

purposes) the most agreed upon item is the item 'Learning to use social networking systems would be easy for me'.

The following Share chart produces a visual representation of the responses with red agreeing and blue disagreeing.

**Figure 1.** 'Perceived ease of use' responses

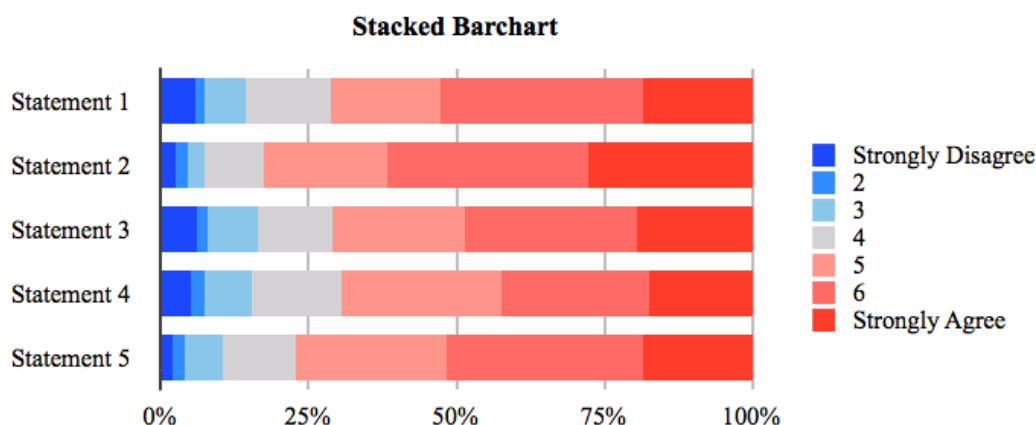


Table 4 below represents the second construct – 'Perceived usefulness'.

**Table 4.** 'Perceived usefulness'

	Statement	Strongly Disagree	2	3	4	5	6	Strongly Agree	Mean
		% of Total							
6	Using social network systems would enhance effectiveness in teaching	2.9	1.49	7.46	15.42	21.39	32.84	18.41	5.23
7	Using social network systems would improve course performance	3.48	2.49	13.43	20.90	21.39	23.88	14.43	4.84
8	Using social network systems would increase my productivity in my teaching work	3.45	5.42	15.27	25.62%	17.73	20.69	11.82	4.58
9	I found social network systems useful	5.39	5.39	11.27	15.20%	21.57	29.90	11.27	4.77
10	Social network systems could make it easier to study course content	4.46	3.47	15.35	22.77	23.76	19.31	10.89	4.59

Most respondents agreed with the statements by marking 5, 6 or 7 this is also shown by the averages varying from 4.58 to 5.23, although some respondents strongly disagreed. The respondents agreed upon all the measurements of 'perceived usefulness'. Considering the averages (for ranking purposes) the most agreed upon item is 'Using social network

systems would enhance my effectiveness in teaching', while the item 'Using social network systems would increase my productivity in my teaching work' were least agreed upon.

The following Share chart produces a visual representation of the responses with red agreeing and blue disagreeing.

**Figure 2.** ‘Perceived usefulness’ responses

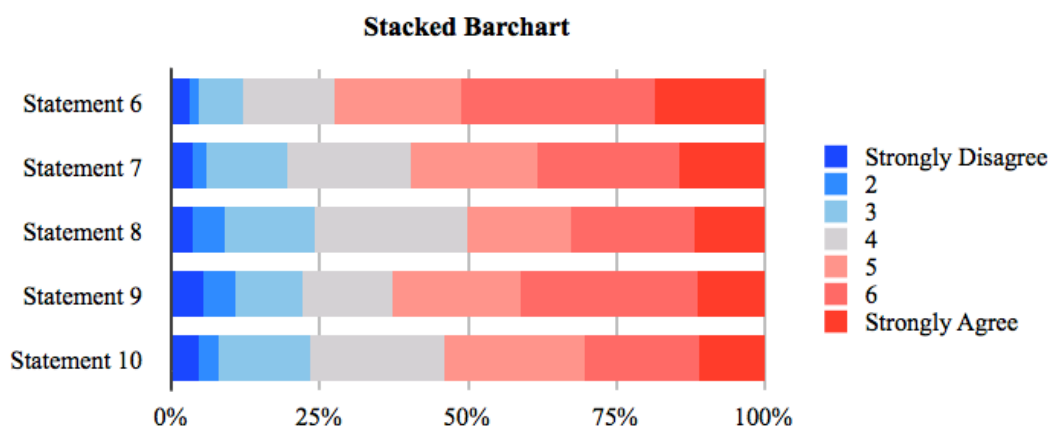


Table 5 below represents the third construct – ‘Attitude towards using social media’.

**Table 5.** ‘Attitude towards using social media’

Statement	Strongly Disagree	2	3	4	5	6	Strongly Agree	Mean
	% of Total							
Disliking the idea of using social network systems	5.45	8.42	7.92	15.35	12.38	24.26	26.24	4.99
Favourable attitude towards using social network systems	4.93	3.94	9.36	17.73	24.63	25.62	13.79	4.85
Good idea to use social network systems for teaching	4.43	2.96	7.88	19.21	24.14	27.59	13.79	4.94
Using social network systems is a foolish idea	2.94	4.41	4.41	10.78	13.24	22.06	42.16	5.62
Positive towards social network systems	2.46	4.43	6.40	16.26	21.18	29.56	19.70	5.17

Please note that items 11 and 14 were reversed. Most respondents agreed with the statements by marking 5, 6 or 7 this is also shown by the averages varying from 4.85 to 5.62, although some respondents strongly disagreed. The respondents agreed upon all the measurements of ‘attitude towards social media use’. Considering the averages (for ranking purposes)

the most agreed upon item is ‘Using social network systems is (NOT) a foolish idea’, while the item ‘I have a generally favourable attitude towards using social network systems’ were least agreed upon.

The following Share chart produces a visual representation of the responses with red agreeing and blue disagreeing.

**Figure 3.** ‘Attitude towards using social media’ responses

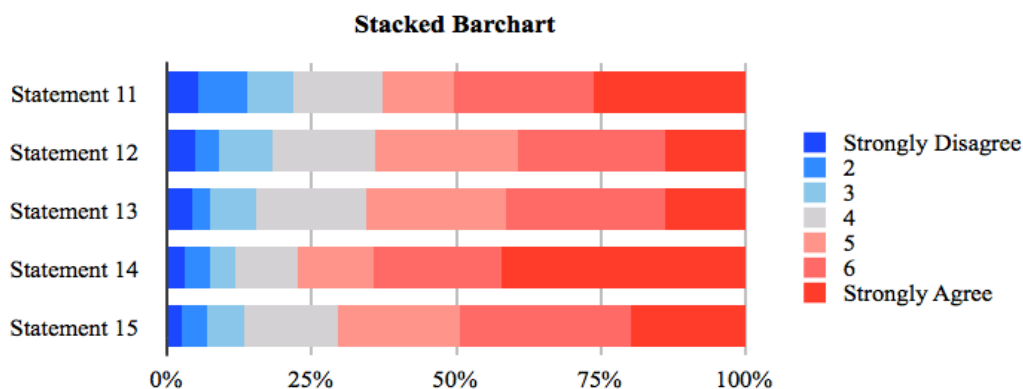


Table 6 below represents the fourth construct – ‘Intention to use social media’.

**Table 6.** ‘Intention to use social media’

	Statement	Strongly Disagree	2	3	4	5	6	Strongly Agree	Mean
		% of Total							
16	Intend to use social network systems for teaching purposes	11.94	5.47	7.46	16.42	22.89	20.40	15.42	4.56
17	Often return to social network systems	8.50	6.50	8.00	20.50	23.00	21.50	12.00	4.56
18	Intend to visit social network systems frequently for teaching work	9.36	7.39	8.87	17.24	25.12	20.69	11.33	4.49
19	Intend to be a heavy user of social network systems	12.81	11.33	15.76	17.24	18.72	18.23	5.91	3.96
20	Intend to use social network systems for communication	5.91	6.90	10.84	15.76	21.67	30.05	8.87	4.66

Most respondents agreed with the statements by marking 4, 5 or 6 this is also shown by the averages varying from 3.96 to 4.66, although some respondents strongly disagreed. All the measurements of ‘intention to use’ were agreed upon by the respondents. Considering the averages (for ranking purposes) the most agreed upon item is ‘I intend to use social

network systems for communicating with others’, while the item ‘I intend to be a heavy user of social network systems’ were least agreed upon.

The following Share chart produces a visual representation of the responses with red agreeing and blue disagreeing.

**Figure 4.** ‘Intention to use social media’ responses

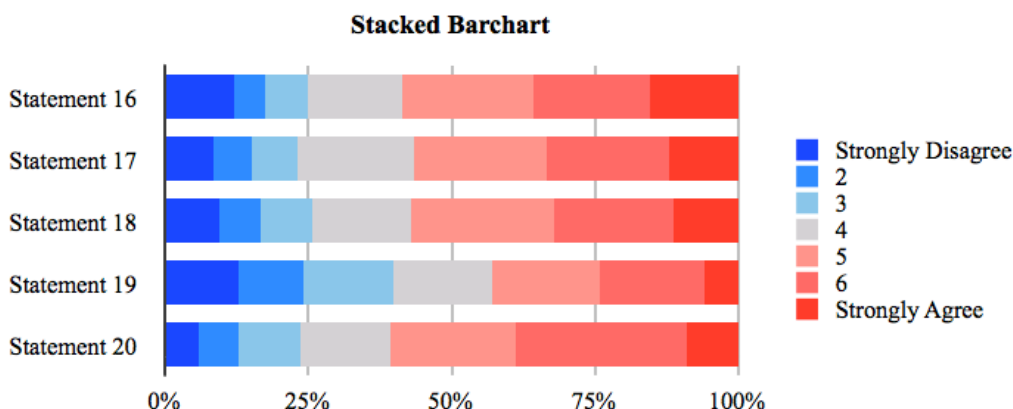


Table 7 below represents the fifth construct – ‘System accessibility’.

**Table 7.** ‘System accessibility’

	Statement	Strongly Disagree	2	3	4	5	6	Strongly Agree	Mean
		% of Total							
21	No difficulty accessing and using an e-learning system	1.49	3.48	6.47	13.43	21.39	33.83	19.90	5.31

Most respondents agreed with the statement ‘I have no difficulty accessing and using an e-learning system in the university’ by marking 5, 6 or 7. The average for ranking purposes is 5.31.

**4.2. Reliability of the sub-constructs**

Reliability is the consistency of the measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. A Cronbach’s alpha value above 0.8 has a very good reliability, a value between



0.6 and 0.8 has an acceptable reliability and a value below 0.6 has an unacceptable reliability. The Cronbach's alpha for the five sub-constructs all yielded high Cronbach's alpha values ( $\geq 0.80$ )

indicating good reliability. Table 8 below represents the Cronbach's alpha values of each of the five sub-constructs. Please note that 'Accessibility' is only one item and cannot be tested for reliability.

**Table 8.** Cronbach's alpha

Sub-construct	Questions	Cronbach's alpha
Ease of use score	Statements 1 to 5	0.93
Usefulness score	Statements 6 to 10	0.91
Attitude score	Statements 11 to 15	0.88
Intention score	Statements 16 to 20	0.94
Accessibility score	Statement 21	None

The individual Cronbach's Coefficient Alpha value of each dimension is used as a measure of the reliability of the tested dimension. A reliable Cronbach's Coefficient Alpha value validates that the individual items of a dimension measured the same

dimension (concept) in the same manner (or consistently). For each sub-construct a mean was calculated to assess the level of agreement among sub-constructs. Table 9 below shows the means and standard deviations.

**Table 9.** Means and standard deviations

	Mean	Std Dev
Ease of use score	5.23	1.35
Usefulness score	4.81	1.31
Attitude score	5.11	1.32
Intention score	4.43	1.58
Accessibility score	5.31	1.41

'Accessibility' was considered most important with a mean of 5.31, while 'Intention' was least important with a mean of 4.43. However, the means were closely distributed indicating a general agreement on the importance of all the sub-constructs.

The standard deviations are fairly high indicating variation in agreement among sub-constructs.

#### 4.3. Profiling the views of respondents on social media networking systems

The biographical variables age, gender and population group were tested against the sub-constructs for

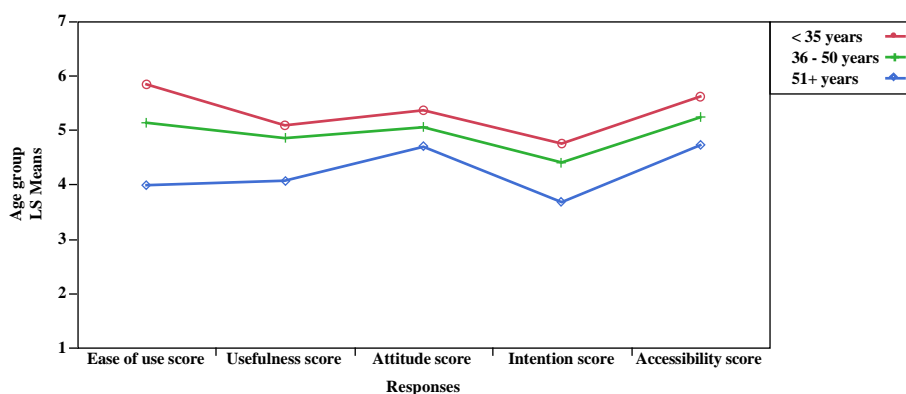
significant different views. Of the biographical variables tested, only age groups showed significant different views.

#### 4.4. Comparison of the respondents' views on the five sub-constructs of social media use among age groups

A profile plot from Multivariate Analysis of Variance (MANOVA) will be used in order to explore differences between the five sub-constructs' mean scores of lecturers of different age groups.

The profile plots from the MANOVA shows the least square means.

**Figure 5.** Lecturers of different age groups on five sub-constructs



From the figure it is clear that there is a difference between the age groups. Younger respondents seemed to view the five sub-constructs of social media more important than older age groups.

In order to develop a profile of the different age groups, the following descriptive statistics as observed from the table below should be taken into consideration.

**Table 10.** Descriptive statistics of age groups

Age group	Ease of use score	Usefulness score	Attitude score	Intention score	Accessibility score
< 35 years	5.84	5.09	5.36	4.77	5.62
36 - 50 years	5.13	4.88	5.07	4.44	5.22
51+ years	4.02	4.09	4.69	3.69	4.72

From the table it is clear that the younger respondents (<35 years) have the highest scores on all the constructs, while the older group (51+ years) have the lowest scores on all the constructs.

In order to determine whether these differences between the means of the age-groups are statistically significant, separate Analysis of Variance (ANOVA) were conducted for each sub-construct. The distributions of the constructs were tested for normality. Because the sub-constructs were not

normally distributed nonparametric Kruskal Wallis tests was used instead of ANOVA.

From the Kruskal Wallis analyses probability values (p-values) were produced. A 'p-value' smaller than 0.05 indicates a significant difference between the means of the dimension tested for the spectator groups at a 95 per cent level of confidence.

Only significant differences are shown in the next table:

**Table 11.** Significant differences

Sub-construct	Chi-Square value	DF	P-value	Significance
Ease of use score	51.45	2	<0.0001	Highly significant
Usefulness	13.75	2	0.0010	Highly significant
Attitude	8.02	2	0.0181	Significant
Intention to use	14.12	2	0.0009	Highly significant
Accessibility score	10.70	2	0.0047	Highly significant

Significant differences between the age-groups exist for all the sub-constructs.

## 5. CONCLUSION

The rapid developments in technology and information sectors enable people to be more informed and aware of the different types of technological systems as opposed to a few years ago. The use of the internet has further enabled many people, students, lecturers and institutions around the world to communicate more effectively with each other on specific topics and issues at any point in time (Mangold & Faulds, 2009: 357). Therefore, it becomes evident that the use of social media networking systems among tertiary institutions does not only make communication easier between lecturers and the students, but it can also add a lot of value in encouraging discussions between and among students and lecturers, as well as addressing administrative issues (Moran, Seaman & Tinti-Kane, 2011: 4; Adamson, 2012).

The findings of the study revealed that the most important factors according to the lecturers' perceptions on the effectiveness of social media networking systems as a lecturing tool was; 'Ease of use' and 'Accessibility'. Lecturers expressed the opinion that it is not a foolish idea to use as an

educational tool but doubt whether they will be heavy users of social media in an educational setting.

When analysing the constructs and by taking demographic information into consideration, no significant biographical differences were found, except for age-groups. The younger respondents considered all the constructs as more important than the older respondents.

It was found that younger age groups generally put more importance on the use of social media networking systems. It is therefore recommended that tertiary institutions should focus more on support of young academics when it comes to development and implementation of a strategy on the use of social media educational purposes. Young academics, generations X & Y are more perceptive towards social media as education tool.

It is furthermore recommended that tertiary institutions make social media networking systems for educational purposes more attractive by implementing programmes to stimulate usage, especially under older lectures. The type of social media networking systems used should be easy to use, as well as accessible.

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