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Scholarly use of Twitter by Saudi postgraduate students in the UK: University of Loughborough case study

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Abstract

In the world of digital natives, where the Internet has become woven into the lives of all individuals, living without the social media and social networking is inconceivable. The tremendous growth of the Internet and various applications have rendered the sharing and exchanging of information easily and swift. This comprehensive study evaluates the use of Twitter by postgraduate Saudi students to disseminate and exchange scholarly information in Loughborough University, UK. The case study includes 45 Saudi postgraduate students who are studying at the University of Loughborough, in the UK. The study focuses on the effectiveness and efficiency of Twitter in terms of finding and disseminating information. The study also evaluates the authenticity and ease that various features offer making the dispersal and exploration of scientific and scholarly information easier, such as hashtags, re-tweeting, and reposting. Furthermore, the study investigates whether the 140-character rule hampers information distribution. The data were gathered via survey, and Google Docs was used for survey collection. The results showed that Twitter was used by the majority of the Saudi postgraduate students at Loughborough University, UK, for the dispersal of scholarly information. Most of the students found Twitter to be a practical way to share information with peers and academics. They also considered it to be an authentic method to finding research-related articles and asking for guidance from others who are experts in the field. The 140-character rule was not found to hamper information sharing. Therefore, Twitter was found to be a reliable tool with which to disperse and find scholarly information.

Keywords: Flow; Social Networks; Social Media; Twitter; Information Exchange; Postgraduate Students

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1. Introduction

Online social media have achieved astounding worldwide growth and popularity, which has led to attention from a variety of researchers globally. With the passage of time, all age groups have come to embrace the changes social network has brought about. Teenagers and young adults are the most enthusiastic users of social media sites and microblogging. Java et al. (2007) were the first to investigate why and how people use Twitter. They concluded that people use twitter for 'daily chatter, conversation, sharing information, and reporting news'.

The main goals when using sites such as Twitter, Facebook,andMySpaceare to interact, communicate, and distribute information. Social media allows users to interact globally and share information with a wider spectrum of people due to its ease of use and wide availability. It has made the boundaries between nations and cultures more translucent, allowing social interaction, communication, and the simple exchange ofgeneral or scientific information.Onomo (2012) also acknowledged this ability of social media by observing that microblogging has become a tool 'for communication, and exchange of ideas, helping individuals and organizations in just causes to reach a phenomenally vast audience that could hitherto not be reached by traditional media'.

Many lecturers are indeed beginning to tap into the potential benefits of social media in education. Many faculties and societies have become attuned to the fact that 75% of students admit to being on Twitter 'all the time'; using micro-blogging site such as Facebook, MySpace, and Google Hangout as a forum on which to share content, encourage debate, and answer queries; and setting up hash tags for specific courses to create online discussion communities for the students in those classes (BBC Active, 2010). Twitter is used by the research community to organize projects and conferences (Ebner et al., 2009). Many educators believe that if these strategies are used, they may provoke more solicitous responses from students due to the public distribution of the content.

Learning management systems, such as Blackboard and LMS, have become immensely popular in universities, especially King Saud University, in recent years as a means of distributing lecture notes and other course information, as a portal for students to use to upload assignments, as a chat forum in which to communicate with their lecturers and with each other. This platform also allows for easy integration with social media services and the automatic transfer of content to apps such as Twitter, Facebook, and LinkedIn. This is in line with a study by Malesky and Peters(2011),which found that to disseminate information, universities have links to Facebook and Twitter on their homepages. Linking accounts to various sites is an attempt to maximize the dissemination of information across various platforms.

The scientific community is beginning to embrace Twitter as a tool for use in research dissemination(Choo et al., 2015). Currently, less than 10% of health professionals use Twitter for a broad range of health-related communications, from personal statements to testable claims (Lee et al., 2014). Articles in *Science* (You, 2014) and *The Lancet* (Wehner et al., 2014) have explored the use of Twitter. Ten percent of PubMed articles are mentionedon Twitter (Haustein et al., 2014).Scientific researchers have recently been called to further engage in the use of social media, specifically Twitter, for research dissemination (Grande et al., 2015).These findings are in agreement with the dissemination of scientific information by postgraduate students, who use Twitter

hashtags and create loose communities. Hashtags were originally created by Twitter users as a method ofcategorizing messages(Twitter, 2017). People can use the hashtag #symbol before a relevant keyword to create a relevant group in which to communicate information on a given topic.

With majority of the people now owning a Smartphone and social media usage accounting for most of the online Smartphoneactivity, social media is a channel that universities simply cannot afford to ignore. According to Semicost(2012) statistics, Saudi young adults from the capital city, Riyadh, were ranked as the tenth most active users of twitter. Therefore, the useof Twitter for the dissemination of scientific knowledge by postgraduate Saudi students at Loughborough University,UK, is a justifiableresearch topic.

Majority of the people now owning a Smartphone and social media usage accounting for most of the online Smartphone activity, social media is a channel that universities simply cannot afford to ignore. The main objective of the research is to investigate the use of such a social networking site as "Twitter" in the diffusion, accumulation and spread of scholarly information by postgraduate Saudi students in UK. According to (Semicost, 2012) statistics, Saudi young adults from the capital city, Riyadh, were ranked as the tenth most active users of twitter. The frequency being high lead to selecting Saudi postgraduate students as the center of the research to analyze their use of social networking sites(twitter). In addition, there are not many studies found that have been conducted on Saudi students with regards to the scholarly use of Twitter. Assumptions being that the occurrence of usage in Saudi Arabia by Saudi students is same as compared to the Saudi students in UK. Paralleled to students based in UK and the Saudi students studying in UK, the predictions are that the Saudi postgraduate students use it more than the UK based students as other social media networking sites are also encouraged and popularly used at universities for the spread of information.

2. Literature review

Twitter plays a vital role in the dissemination and exchange of information. Students, especially in higher education, can benefit from Twitter use because they can find wide variety of information about their studies. For instance, academic information can be exchanged because students can use Twitter to collaborate on projects and keep a list of any changes made. Various mainstream and independent news feeds with different biases can be includedin lectures as a way to compare and contrast how people with different perspectives interpret current events and issues. Schedules and current events can be easily distributed, and students can be involved in discussions to increase their knowledge and understanding of a topic. Regarding informal knowledge, Twitter helps students to develop their skills by supporting peer-to-peer learning, collaboration, diverse cultural expression, and the development of skills that are at the core of the modern world. There are many theories about how postgraduate students can use Twitter to exchange information.

Twitter was first launched as anexperimental conference communication tool. Its later success was due to its use in promoting conferences. According to Zhu and Procter(2015), students can use Twitter to disseminate their work to a wide audience quickly and attract feedback and support from peers across the globe. In addition, students find Twitter to be more useful than other social networking systems(SNSs) because it helps them find

any information that is relevant to their research by simply typing keywords into Twitter's search engine. Thus, Twitteris an excellent way for students to research ideas, opinions, and movements as they happen.

Grosseck and Holotescu(2008)hold that Twitter can be an effective tool for professional development and collaboration amongstudents. Twitter use can change the direction of a course from a traditional model to a more modern approach that is responsive to students' learning needs. In the world of tech citizens, excluding SNSs from the learning environment will lead to negative outcomes. An amalgamation of both SNSs and traditional learning and teaching will aid in the students' development and also cater to their current needs. Twitter facilitates the creation of personal learning networks(PLNs) in the education sector. In this way, students can ask questions ofpeople they only know online and receive help from academics who provide online counseling. Szabo (2012) suggeststhat the use of Twitter is playsan important part in thepersonal learning networks (PLNs) of students. A dynamic form of learning in which students and academics learn together is the new approach to fully engage digital natives in higher education (Hilton, 2006; McNeely, 2005; Oblinger and Oblinger, 2005).A similar study conducted by Sandars and Schroter(2007) suggests that a lack of knowledge and skills with which to exploit SNSswas the main impediment preventing students from using SNSs in an educational context. However, the desire to use these SNSs in the educational field was found in the majority of 3,000 qualified practitioners.

Furthermore, Twitter can also provide a wide range of feedback and allow student involvement in class orin the virtual world. A tweet can be constructed to express an idea, paraphrase or critique a concept, and support face-to-face dialogues betweenstudents and academics(Sweeney,2012).Conversely, a study conducted by Prestige(2014) regarding the use of Twitter by the Higher Education Commission focused on making university education less isolated by providing opportunities for students to have their thoughts acknowledged, collaborate, and co-create.Students of Bachelors of Education Primary Program offered at three campuses across Australia participated in the research. A hast tag was created using the course code for students to interact, paraphrase, question or provoke thinkingBy tweeting about the course over a semester, students demonstrated an active learning process by tweeting images and links, re-tweeting, and applying the knowledge gained in the lectures. In addition, Regis(2012) has suggested that postgraduate students and young researchers can use Twitter to form communities that offer counseling and the distribution of information.In the domain of health and medical sciences, Fox and Varadarajan(2011) introduced Twitter as a means of encouraging interactions among the students themselves and the academic staff and engagement with the course content. Therefore, Twitter allows the further exploitation of course content and enhanced information exchange and social interaction at universities.

Over the past few year, twitter has been used for scholarly activities, such as sharing information and resources, asking for criticism, self-promotion, and networking with peers,as stated by Vleltsianos and Kimmons (2012).A study conducted by Ahmad, Hussain, and Aqil (2013) that focused on the use of Web 2.0 tools by Saudi private and public universities revealed that 22 of 24 universities usedWeb 2.0 tools, such as Twitter and Facebook,to exchange information, rendering them the most popular tool among Saudi Universities for the exchange of information, self-promotion, and networking.

Twitter has been used by to exchange information between university students around the world. The use of Twitter as a tool with which to create, exploit, and spread information is evident from the aforementioned research projects. However, this research will focus on the use and role of Twitter in the exchange of scholarly information by Saudi postgraduate students in Loughborough University, UK.

3. Research questions

1- How often do the students use Twitter?
2- What do they use it for?
3- Do they use Twitter for scholarly purposes?
4- Do they see Twitter as an effective means of exchanging scholarly information?
5- To what extent does Twitter facilitate the exchange of scholarly information?

4. Research methodology

This case study is based on 45 Saudi postgraduate students at the University of Loughborough, UK. Google Docs was used to gather data for the study. Specifically, a structured questionnaire was provided to all Saudi postgraduate students at Loughborough University who were Twitter users. The questionnaire was developed to measure the usage of Twitter by postgraduate Saudi student to search for scholarly information and disseminate this information to other users or peers.

5. Findings and discussion

The statistical data are analyzed and represented below in tables.

5.1. Twitter Users

Table 1. Twitter Users

Options	Participants	Percentage
Yes	42	93.3%
No	2	4.4%
May be	1	2.2%

Table 1shows the number of respondentswho use Twitter. Out of 45 students who participated, 42 (93.3%) were Twitter users. Twowere non-users. Therefore, the majority of postgraduate Saudi students at Louborough University are Twitter users.

5.2. Frequency of use

Table2. Frequency of use

Options	Participants	Percentage
Several times a week	5	11.1%
Once a day	6	13.3%
Several times a day	31	68.9%
Once a week	2	4.4%
Other	1	2.2%

Table 2 shows the frequency of Twitter use by the postgraduate students. The students areprovided with relevant responses and are asked to choose from the list or specify their own answer after choosing 'other'. The table shows that 68.9% of the students are frequent daily users. Also 13.3%of students access Twitter only once a day, 11.1% of students access Twitter several times in a week, 6.6%use Twitter once a week or on occasion, and2.2% responded with 'other' and failed to provide any answer when choosing other.The results show that the majority of the students use Twitter frequently.

5.3. Motives for usage

Table3. Motives for usage

Questions	Participants	Percentage
To find general information	35	77.8%
To find scientific information	21	46.7%
To keep in touch with family and friends	7	15.6%
To follow local events	30	66.7%
To make friends	5	11.1%
To share general and interesting information	17	37.8%
To find scholarly information related to research findings and scholarly blogs	10	22.2%
Other	3	6.7%

Table3 shows what the students use Twitter for. Students are given relevant responses to choose from. They can choose more than one relevant response or suggest a personal response in the 'other' category. The results showed a variety of motives for the use of twitter. A substantial number of students (77.8%) used Twitterto find general information. Slightly fewer (66.7%) students used Twitter tofind local events. Less than half of the students (46.7%) usedTwitterto find scientific information. Still fewer (37.8%) students usedTwitterto find interesting information. One-quarter (22.2%) of the students usedTwitterto find information related to scientific research and scholarly blogs. Also, 26.7%of students used twitter to make social connections with family and friends, 11.1% usedTwitterto make new friends, and 6.7% usedTwitter for other purposes, which they did not mention. The results suggest the varied uses of the tool.

5.4. Kind of information shared

Table 4. Kind of information shared

Questions	Participants	Percentage
Information about my college and department	10	22.2%
Information about academic research	14	31.1%
Information about my study courses	12	26.7%
Information about current events	24	53.3%
Information about celebrity news or news in general	20	44.4%
Surveys and polls	7	15.6%
Other	5	11.1%

Table 4 shows the kind of the information exchanged through Twitter. Students were given a list to choose from. They could choose more than one relevant response or suggest a personal response in the 'other' category. Most of the survey respondents (53.3%) use Twitter to exchange information about current events. A significant number, 44.4%, used it to exchange news. One-third of the respondents (31.1%) were inclined to exchange academic research with their peers via Twitter. A smallerpercentage of respondents, 26.7%, usedTwitterto share information on study courses, and 22.2% usedTwitter for exchanging information about their college departments. Also, 15.6 % used it to exchange surveys and polls, and 11.1% used it to share other kinds of information, which they did not mention. This shows that there seems to be a tendency to use Twitter for the exchange of scientific and scholarly information.

5.5. Usefulness of twitter

Table 5. Usefulness of twitter

Options	Participants	Percentage
Yes	23	51.1%
No	1	2.2%
Maybe	21	46.7

Table 5shows the importance and usefulness of Twitter in thespread and exploration of scientific and scholarly information by postgraduate students. A majority of the respondents (51.1%)agreed that Twitter was useful in this regard. Slightly fewer respondents, 46.7%, are argued that it could be a useful tool with which to share scientific information. Less as 2.2% of the respondents felt that this tool was not useful. Therefore, the resultsshowed that Twitter is a useful tool with which to disperse and find scholarly information.

5.6. The degree of efficiency

Table6. The degree of efficiency

Options	Participants	Percentage
Not important: 1	1	2.2%
Maybe: 2	0	0%
Fairly important: 3	24	53.3%
Important: 4	14	31.1%
Very important: 5	6	13.3%

Table 6 shows the results regarding Twitter's efficiency and effectiveness in terms ofsharing scholarly information. Employing a linear scale, with 5 being the most important and effective and 1 being the least effective, we investigated the level of success of this tool. Of the 45 students, a significant number of students (31.1%) agreed that Twitter was an effective tool, and 13.3% reported that it was a very effective tool. More than half (53.3%) of the students agreed that Twitterwas a fairlyeffective tool with which to disseminate information. As little as 2.2% of respondents argued that Twitterwas not an effective toolwith which to share information. The statistics illustrate that Twitter is agreed to be an effective tool with which to disseminate scientific and scholarly information.

5.7. Why is Twitter an effective tool

Table 7. Why is Twitter an effective tool?

Questions	Participants	Percentage
Twitter helps me find the information required without any waste of time and effort	25	55.6%
Twitter helps me find latest information about my field	15	33.3%
Twitter give me a platform to contact experts in my field	22	48.9%
Twitter lets me stay in touch with my classmates and academics	17	37.8%
The numbers of tweets and re-posts signify how authentic and relevant the article is	17	37.8%
Other	2	4.4%

Table 7 shows why the students think that Twitter is effective tool with which to explore and exchange information. The students were provided with a list of responses to choose from. The students could choose more than one response or personalize their own response in the 'other' category. The majority found that it was less time-consuming and more effective than other options. Marginally fewer, 48.9%, argued that it helped them contact experts in their fields. Positive responses to the statements regarding the authenticity of the information in relevant articles and staying connected with colleagues were as high as 37.8%. Also, 33.3% of

the respondents found Twitter to be a useful tool with which to find the latest information about their field. A minority of 4.4% chose 'other' and did not mention their specific opinions. It is therefore established that most students find Twitter to be an effective tool due to the variety of purposes that drive its usage.

5.8. Feasibility of sharing information through the use of hashtags

Table 8. Feasibility of sharing information through the use of hashtags

Options	Participants	Percentage
Strongly agree	6	13.3%
Agree	23	51.1%
Neutral	13	28.9%
Disagree	1	2.2%
Strongly disagree	2	4.4%

Table 8shows how the hashtag (#) feature increases the ease of information exchange. The students had to report their agreement or disagreement with the notion that Twitter use facilitates the dispersal of information. As many as 64.4% of the students agreed that Twitter facilitates the dispersal of information, out of which 13.3% strongly favored its use. Moreover, more than one-quarter (28.9%) gave neutral reviews regarding this feature. However, a minority of 6.6% did not feel this feature was useful, with 4.4% strongly disfavoring it.

5.9. Efficiency of re-tweeting and reposting to share information

Table 9. Efficiency of re-tweeting and reposting to share information

Options	Participants	Percentage
Yes	33	73.3%
No	1	2.2%
Maybe	11	24.4%

Table 9 shows student responses regarding whether reposting and re-tweeting are efficient means of sharing scientific information. A majority, 73.3%, of the responses indicated that re-tweeting and reposting were effective toolswith which to distribute information. One-quarter of the respondents (24.4%) were neutral. In addition, a minority of 2.2% argued against this feature's usefulness. This indicates that most respondents see re-tweeting and reposting as useful features of Twitter that can be usedto exchange scientific information with ease.

5.10. Adequacy of the 140-character limit in terms of disseminating information

Table10. Adequacy of the 140-character limit in terms of disseminating information

Options	Participants	Percentage
Yes	17	37.8%
No	16	35.6%
Maybe	12	26.7%

Table 10 shows the responses regarding the 140-character rule's effect on the exchange ofinformation.As many as 37.8% of the students felt the limit was acceptable in terms of its effect on information exchange. Marginally fewer, 35.6%, disagreed, and 26.7% were neutral. Thus, the results are split.

6. Conclusion

The majority of the postgraduate students find Twitter to be an effective tool with which to disseminate scientific information and explore authentic scientific information and scholarly articles. The results also show thatthe use of hashtags, re-tweeting, and reposting is thought to make the dispersal and exploration of scientific and scholarly information easier. Regardingthe 140-character rule's effect on their ability to disseminate and explore scientific and scholarly information,the respondents were about evenly split, leading to a conclusion that majority of the post graduate students find Twitter a useful tool to explore scholarly information.

The limitation of the study is that it is restricted to Saudi postgraduate students only. The future recommendation of the research may be to use the findings as the base for conducting a research comparing the scholarly use of Twitter by Saudi Students in UK and by the students of other nationalities.

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