



EDUCATIONAL NETWORKING – ONE YEAR EXPERIENCE WITH WATS APP DISCUSSION FOR MEDICAL STUDENTS

Balaji Arumugam

Prof and HOD, Department of community medicine, Tagore medical college and Hospital, TN Dr. MGR Medical University

Sowmiya. KR

Associate professor, Department of community medicine, Tagore medical college and Hospital, TN Dr. MGR Medical University

Kirubhaa Krishna

Final Year MBBS Student, Tagore medical college and Hospital, TN Dr. MGR Medical University

ABSTRACT

The use of social media has increased among college students although the purpose of usage is mainly to stay connected with friends. The social media and mobile applications can be used to improve the learning among the college going students. So far there is less literature available to assess the effectiveness of social media and mobile applications in improving the learning among medical education. The one year experience of Wats App discussion of community medicine subject with thirty medical students and their feedback showed that any social media if it is properly and judiciously utilized can improve learning process in a better way.

KEYWORDS :

INTRODUCTION

The use of social networking technologies for educational purposes, aligns with federal and state goals to promote innovative and collaborative technology^[1] Educational Networking" is the use of **social networking technologies for educational purposes**^[2] The phrase "educational networking" is that the hybrid form of social networking that is being built for education is actually different than the direction that public "social networks" are likely to take. The combination of social networking technologies with the learning tools of online teaching platforms will create a distinct use of technology which merits its own designation.^[3]

Social networking is defined by many people using their own perceptions, technology has not only mediated communication in countless ways, but the very ways we communicate and even the ways we talk and think about communication are changing as a result^[4]. Social networking is the practice of expanding the number of one's business and/or social contacts by making connections through individuals, often through social media sites such as Facebook, Twitter, LinkedIn and Google+^[5]. Social Networking involves the use of the internet to connect users with their friends, family and acquaintances. Social networking websites are not necessarily about meeting new people online, although this does happen. Instead, they are primarily about connecting with friends, family and acquaintances you already have in real life. The most well known social networking sites are Facebook, Twitter, MySpace and Bebo. These sites allow you to share photos, videos and information, organise events, chat, download music and even play games like Scrabble and Chess online^[6]. We define social network sites as web-based services that allow individuals to construct a public or 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. The nature and nomenclature of these connections may vary from site to site. While we use the term "social network site" to describe this phenomenon, the term "social networking sites" also appears in public discourse, and the two terms are often used interchangeably. We chose not to employ the term "networking" for two reasons: emphasis and scope. "Networking" emphasizes relationship initiation, often between strangers. While networking is possible on these sites, it is not the primary practice on many of them, nor is it what differentiates them from other forms of computer-mediated communication (CMC).^[7] Social networking is built on the idea of how people know should know and interact with each other. It gives people the power to share, making the world more open and connected.^[8]

SOCIAL NETWORKING UTILIZATION IN EDUCATION (MEDICAL):

Social networking utilization are rapidly establishing for past few years. Social networking sites will develop a socialization of individual by establishing good relationship worldwide. The Pew Internet Project's research related to social networking of January 2014, 74% of adults are using social networking sites^[9] and this percentage increases by 1% than the previous year and according to this research about 90% people are using social networking sites of age limit between 18 to 29 years. A study done by Lee Andrew Dunn among 231 students, 87% are using social networking for personal purpose, 33% using for professional networking and 24% using for research and studies^[10]. The Social networking Media is now with lots of information. Sreeja Rajesh and Jithin Michael study about social networking shows that services and resources available in the sites are used by the users of Social Media. They studied social networking effectiveness in education field and found out that it is very useful tool in education purposes and beyond. Students can make use of the interaction services, group services in their studies. On the other hand Social Media effectively used to search for colleges and career opportunities^[11] Privacy, real friendship, taking up time and miscommunication are the most important challenges faced by the social networker user. On the other hand, flexibility, repeatable and convenience and accessibility have a vital influence in the use of social networking in education.^[12]

USE OF MOBILE APP IN MEDICAL EDUCATION:

Medical apps in smart mobile are quickly becoming one of the most important tool in learning and clinical practice among medical students. The study done by Subhash and Bapurao shows majority of the medical students uses smartphone for communication, learning, and entertainment[13]. A study done by Shahrzad Vafa, Diane E. Chcio shows the three main uses of a mobile device by students were Recreation (82.5%), Communication (81.7%), and Education (62.7%)[14]. The study done by Wallace, Sean, Marcia Clark and Jonathan White on medical education, Students are using mobile application for online textbooks 70%, medical podcasts 60%, medical calculator 75%, online lecture 50%, note taking 45% and defining unfamiliar terms 93%[15]. Boruff et al published a research that reflects how the Canadian medical faculties use the mobile devices to answer clinical questions and find information and also they showed the barriers to access the mobile application due to Wireless access in the hospital or clinic. 70.7%, Knowing what resources are available 55.8%, Lack of time 26.3%, Understanding how to use this technologies 20.8%, Technology problems 20.7% and Complication while installation process 18.3%[16]. Despite these many benefits, There are also some potential dangers with the

use of mobile medical apps. It is imperative that individual users understand how to critically appraise and properly identify apps that are safe to use in patient care. This ability to evaluate resources and ensure their quality¹⁷⁾.

EXPERIENCE OF WHATS APP DISCUSSION AMONG STUDENTS

Whatsapp is one of the advanced **application** that is used on smart phones which is greatly increased throughout the world. Whatsapp may generate noticeable improvements in consumer's lives. Almost 18% of users are from the age group 17-25, which includes college students who mostly use whatsapp service for college groups and friends chatting¹⁸⁾. Generally, Whats app is used for sharing photos, videos and voice note. The study done by **Lee Chin Yin** indicate that students possess positive attitudes towards whatsapp learning¹⁹⁾. The benefits of the whatsapp tool in a blended mobile lecture are online students can easily discuss different topics related to the course taught face-to-face in the classroom, students can edit and publish by engaging in collaborative and cooperative online activities related to the course taught in the classroom, encourages students to insert text and messages to easily share information and knowledge and Can help students to integrate videos, podcasts, messages, texts, images and audio files²⁰⁾. A study conducted in Chennai by Mohakrishnan K et al revealed that the wats app mobile application effective in improving learning and the student perception was also more in favor of learning by new technology formats than traditional formats.²¹⁾ This study has explored that the usage of latest mobile technologies like Wats app can improve learning among medical students, but the long term follow up like one year consistent and timely usage for academic purposes was not documented in any other studies in India. In this article the author has clearly documented the student's perceptions and feedback regarding the academic discussions in the community medicine subject during the year January to Dec 2016. The Professor and HOD, being the group admin the Wats app group has instructed the students regarding the discussion timings, topics according the student requirements.

Although before the invent of Wats app, twitter and Facebook social media were used for dispensing the educational content. A longitudinal study study done by David Bahner et al.stated that Twitter was an excellent means of delivering educational content for health care professionals.²²⁾ Similarly other studies also supported that the social media facilitates professional development,²³⁾ but there are some recent literatures state that the use of social media in medical education has not impacted on learning process.²⁴⁾ In this one year of journey with the medical students in facilitating their learning in the subject of community medicine through the mobile application Wats app, our group of students has given the following feedback about their experience in learning.

STUDENTS FEEDBACK

<p>NAME:RAGAVI.R MERITIS: -Very useful, interactive - Important question are really useful, make us to learn and score better DEMERTIS: - None NAME:KARTHIGA.M MERITIS: - Discussing questions before exam was very useful especially 2 marks. - Useful in recalling points. DEMERTIS: - None</p>	<p>NAME:SARAH MERITIS: - Very helpful during tests as important questions are being discussed. - Regular discussion gave an idea of the subject. - Helps us in making tough concepts more relatable. - Our professor is very friendly and encouraging. Hence, fear of approaching the subject is reduced to a great extent. DEMERTIS: -None</p>
--	---

<p>NAME:SUSHMITHA.S.P MERTIS: - Can able to learn many topics in short time. - Easy to identify the key points for each questions. which helps us in exams for scoring more marks - Typing in groups helps us in remembering the points more easily. - Interesting cases discussed. - Spending quality of time in whatsapp for learning. DEMERTIS: - Can't able to catch the discussion all the time because of some reasons.</p>	<p>NAME:AISWARYA.R MERTIS: -The group gives us a fun way to look into answers in the textbook and do our favorite job of "texting" it in the group. - We get used to the topic once before the exams. - One mark, short answers can be finished reading with answering in the group and reading the group messages. DEMERTIS: - Which was actually tried, before yes, fixing a particular time and knowing about the chapter beforehand. - And definitely this is fun only for those who have a good internet connection and signal.</p>	<p>N A M E : J A R A SRUTHI.M MERTIS: - Able to identify important questions and points. - Able to learn in short period. - Useful in revising the key points in answers. DEMERTIS: - U n a b l e t o participate all the time. NAME:ARCHANA MERTIS: - This group is very useful for us to learn the subject. - Important points can be remembered very easily DEMERTIS: - none</p>
--	--	---

<p>NAME:KIRUBHAA.J.K MERITIS: - Its is very useful to discuss about subject. - Discussing in whatsapp make a good relationship with professor. - 2mark discussion in group is very useful in the exam. - Besides about subject knowledge , clinical case discussion is also useful DEMERTIS: - Constant timing for group discussion and topic to be discussed informed before the discussion will be useful - MCQ, problem and spotter discussion can also made.</p>	<p>NAME:MONISHA MERTIS: - Good rapport between students and professor. - Useful in retaining key points of content DEMERTIS: - Previous planning of the topic to be discussed should be scheduled for the particular week. NAME:SNEHA MERTIS: - Organised - Important questions were discussed was easy to revise the chapter in a short time. - Sir is very friendly - He help us in many ways like how to manage time in exam DEMERTIS: - It would have been better if correct timing was allotted followed everyday so that everyone in that group can actively participate. - The particular chapter which is going to be discussed should be told beforehand so that we will</p>	<p>NAME:RAMYA.M MERTIS: - It is so useful for us. We can easily remember the topics discussed in the group & so were able to reproduce the the answers in the exam. Even if i am bored to read the book, i can easily learn the questions from the group doing chatting. The cases dealt by HOD sir in the group give us an idea to deal with the patient and learn about the disease. - Important topics were discussed, so that we would be able to know the topic which are more important. DEMERTIS: - Thus should have been scheduled time each day for discussion which is difficult.</p>
---	---	---

<p>NAME:HARIKA.S MERITIS: -The discussions held in the group are very useful in clarifying the doubts and giving a clear idea of what is necessary for the particular answer and the way to present it in the exam. Also the revisions before exams helps to remember them better. - The important question given in the group make sure that we do not leave, those essential question while preparing for exams. DEMERITIS: -None</p>	<p>NAME:SANDEEP MERITIS: - Whats app group learning is very useful because those who feels shy to answer in class also feel brave to answer here -It will make the thing to retain the knowledge more than the normal conversational learning - In fact some students will get a d d i c t e d t o whatsapp learning that will make their life more easier than others and final thing is the right guide like HOD sir is very much stimulating to our students to think more and answer more. DEMERITIS: -None</p>	<p>NAME: SUBHASHREE MERITIS: -Organized - Important questions were discussed - Easy to revise all the chapter(key points) - HOD sir is very friendly. - How to manage time in exam. DEMERITIS: - It would have better if correct timing was allotted and the subject (lesson) that was going to be discussed.</p>
---	---	---

<p>NAME:NITHYA.K MERITIS: - It was really very useful in the academic point of view. - Discussions made us familiar to different question and answers. - When we read back the discussion, it is useful in attempting 2 marks. DEMERITIS: - Not all of us come online in the same time. - There must ve a scheduled timing everyday, so that no one misses the discussion. NAME:BALASUBASH MERITIS: - It was very useful being a part of this whats app group. apart from discussing important question before exams which was very essential. - We were able to be in constant touch with the subject. - We got tips about how to precisely present in the exams. DEMERITIS: - Many student should add. NAME:VAISHUNAVI MERITIS:</p>	<p>NAME:DURGA MERITIS: - This group is really useful .it helps us to learn subject easily. - Besides subject u also discuss about some of ur clinical cases which is really useful for us. DEMERITIS: - The topic which gonna be discussed can be tell before hand so that will easy for us to prepare. NAME:SANTOSH KUMAR.K MERITIS: - This whats app group discussion being helpful with questions and also a great preparatory tool before the exam also has a added bonus of getting to know what to write and the point expected inn answers. - Group discussion in my opinion motivated me a lot to learn more. DEMERITIS: - None. NAME:SARAN KUMAR MERITIS:</p>	<p>NAME:ARTHI MERITIS: - This group allowed for group discussion really - It was able to learn some cases easily. - Easy to receive important questions. DEMERITIS: - None NAME:FARHEEN MERITIS: - This group was very helpful and a interesting way to learn the subject. - Discussions made us to search for the answers because of which we were able to restore it and recall during exams. - The key points which was highlighted in the group by all because of encouragement by our faculty. DEMERITIS: - Not so in particular but it would have been if there was mcq type question too can be discussed. NAME:NAWIN MERITIS: - It was nice to be the part of this group.i learned a lot and found myself some important tips which</p>
--	---	--

<p>- The group was useful to learn the subject well - We were familiar about the important question and helped us out through our internals. DEMERITIS: -None NAME:RASOOL MERITIS: - easier to revise during exam.since whats app easier method of approach. DEMERITIS: None</p>	<p>- I felt it is absolutely useful and all things will be discussed in class and here through whats app we are able to learn something which aren't discussed over class and as all others told repeatedly we are used to certain things which makes us familiar to subject and we came to know something new too. DEMERITIS: -None.</p>	<p>could come very handy and useful during exams. NAME:VINITHA MERITIS: - This group is very useful for us to learn the subject. - Important points can be remembered very easily DEMERITIS: none</p>
---	--	---

TIPS FOR USING WATS APP – MOBILE APPLICATION – TO IMPROVE LEARNING AMONG MEDICAL STUDENTS

- TIPS for learning through Mobile and Wats app
- 1. Inform the students – Well ahead about the time, schedule, duration, topics
 - 2. Discuss the pros and cons (Pros - enhance learning) (Cons – distraction during online)
 - 3. Identify the barriers – (why the delay or not participating in the discussion)
 - 4. Provide time and space – for all type of learners (fast and low typing persons too)
 - 5. Observe and facilitate – Observe the discussion and flow of answers
 - 6. Clear with objectives – facilitator should be clear with objectives
 - 7. Self responsibility – Students are responsible for their learning and wrong answers and discussion will percolate to others also.
 - 8. Summarize and conclude the discussion

Conclusion:
Although this experience showed that the students are more inclined towards the usage of social media and mobile app for learning the medical subjects there are very less available research literatures to support the evidence and to assess the long term effectiveness of social media in improving the learning in medical education. Nevertheless any new technology if it is judiciously used, can improve the learning process.

REFERENCES

1. Adam Goldfarb, Natalie Pregibon, Jonathan Shrem, Emily Zyko, INFORMATIONAL BRIEF ON SOCIAL NETWORKING IN EDUCATION February 2011 http://www.p12.nysed.gov/technology/inter_net_safety/documents/InformationalBriefonSocialNetworkinginEducation.pdf accessed on 26/12/2016.
2. <http://www.educationalnetworking.com/> accessed on 26/12/2016.
3. Steve Hargadon Social Learning Consultant, Elluminate Educational Networking: The important role Web 2.0 will play in education accessed on 26/12/2016.
4. <http://www.digizen.org/downloads/social-networking-overview.pdf> accessed on 26/12/2016.
5. <http://whatis.techtarget.com/definition/social-networking> accessed on 26/12/2016.
6. <https://accan.org.au/files/Tip%20Sheets/ACCAN%20Basics%20of%20Social%20Networking.pdf> accessed on 26/12/2016.
7. Danah M. Boyd, Nicole B. Ellison, Social Network Sites: Definition, History, and Scholarship, Journal of Computer-Mediated Communication page no 210-230 accessed on 26/12/2016.
8. Turban, E., King, D., Lee, J.& Viehland, D., (2010), "E-commerce A managerial Perspective", New Jersey 07458: Pearson Education, Inc., Upper Saddle River.P392.<http://www.slideshare.net/shivangkalambekar/the20use20of20social20networking20in20education20challenges20and20opportunities>. (Accessed on 26/12/2016)
9. Pew research centre's internet project January omnibus survey, January 23-26 2014 http://www.pewinternet.org/files/2015/01/PI_SocialMediaUpdate2014_pdf.pdf assessed on 26/12/2016.
10. Lee Andrew Dunn- Interdisciplinary Science Education, Technologies and Learning - The University of Glasgow, TEACHING IN HIGHER EDUCATION: CAN SOCIAL MEDIA ENHANCE THE LEARNING EXPERIENCE? Accessed on 26/12/2016.
11. Sreeja Rajesh and Jithin Michael Effectiveness of Social Media in Education. International Journal of Innovative Research in Advanced Engineering (IJIRAE) ISSN: 2349-2163 Issue 10, Volume 2 (October 2015) page no 29-31 Accessed on 26/12/2016.
12. Ashraf Jalal Yousef Zaidieh, The Use of Social Networking in Education: Challenges and Opportunities World of Computer Science and Information Technology Journal

- (WCSIT) ISSN: 2221-0741 Vol. 2, No. 1, 18-21, 2012 page no 18-21
<https://pdfs.semanticscholar.org/76e2/1d0c5cc14238463a09eec33d5d06573a32d2.pdf> Accessed on 26/12/2016.
13. Thakre Sushma Subhash,Thakre Subhash Bapurao,Perception of medical students for utility of mobile technology use in medical education International Journal of Medicine and Public Health | Oct-Dec 2015 | Vol 5 | Issue 4 page: 305-311 Accessed on 27/12/2016
 14. Shahrzad Vafa, Diane E. Chico A needs assessment for mobile technology use in medical education International Journal of Medical Education. 2013;4:230-235 ISSN: 2042-6372 DOI: 10.5116/ijme.5259.4a88 page 230-235 Accessed on 28/12/2016.
 15. Wallace, Shawn, Marcia Clark and Jonathan White (2012), "It's on my iPhone: Attitudes to the Use of Mobile Computing Devices in Medical Education, A Mixed-Methods Study," British Medical Journal Open, 2(4),1-7.
<http://bmjopen.bmj.com/content/2/4/e001099.full> Accessed on 28/12/2016.
 16. Boruff, J. T., & Storie, D. (2014). Mobile devices in medicine: a survey of how medical students, residents, and faculty use smartphones and other mobile devices to find information. Journal of the Medical Library Association : JMLA, 102(1), 22-30. doi: 10.3163/1536-5050.102.1.006
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3878932/> accessed on 27/12/2016.
 17. Conar Hanrahan, Timothy Dy, Aungst, Sabrina Cole American Society of Health-System Pharmacists, Inc.; registered in the U.S. Patent and Trademark Office. ISBN: 978-1-58528-458-0 <http://www.ashp.org/DocLibrary/Bookstore/For-Institutions/Mobile-Medical-Apps.pdf> Accessed on 27/12/2016.
 18. Sagar Deshmukh, Analysis of WhatsApp Users and Its Usage worldwide International Journal of Scientific and Research Publications, Volume 5, Issue 8, August 2015 1 ISSN 2250-3153, page no 1-3 accessed on 26/12/2016.
 19. Lee Chin Yin, Adoption Of Whatsapp Instant Messaging Among Students In Ipoh Higher Education Institutions, Wawasan Open University May 2016 Appendix A: Project Report Front Cover. 22. 23. (Accessed on 27/12/2016)
 20. Chokri Barhoumi, The Effectiveness of WhatsApp Mobile Learning Activities Guided by Activity Theory on Students' Knowledge Management CONTEMPORARY EDUCATIONAL TECHNOLOGY, 2015, 6(3), 221-238 (Accessed on 26/12/2016)
 21. Mohanakrishnan K, Nithyalakshmi Jayakumar, Kasthuri A, Sowmya Nasimuddin, Jeevan Malaiyan, Sumathi G. WhatsApp enhances Medical education: Is it the future? International Journal of Medical Science and Public Health; 2017: Vol 6; Issue (2), Page - 1 to 6.
 22. Bahner DP, Adkins E, Patel N, Donley C, Nagel R, Kman NE. How we use social media to supplement a novel curriculum in medical education. Med Teach. 2012;34(6):439-44.
 23. Avcı K, Çelikden SG, Eren S, Aydenizöz D. Assessment of medical students' attitudes on social media use in medicine: a cross-sectional study. BMC Medical Education. 2015;15:18.
 24. Arnbjörnsson, E. (2014) The Use of Social Media in Medical Education: A Literature Review. Creative Education, 5, 2057-2061.