

Does Social Media Impacts Learning? An Empirical Study.

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Abstract— Social Media has become integral part of our daily lives but still most of the societies are unknown to take its educational advantages. Therefore, there is need to explore educational insights, usage priorities and impact of these Social Networking Sites (SNSs) at higher education level because a massive number of youth is already engaged on social media platforms. In this regard, present study aims to assess the impact of Facebook usage on learning strategies at university level. Because it is most influenced social site across world including Pakistan. Unfortunately, most of the people and students consider that using the SNS is a wastage of time even at higher education level. Therefore, we have reviewed the literature in order to explore educational charms of SNSs and their global adaptation in teaching and learning practices. Moreover, we have conducted survey in order to investigate the real usage priority of Facebook among undergraduate students of 5 different universities. In the end survey data is analyzed and results have been presented regarding students' priorities. This work will benefit the educationists and students in order to adopt emerging e-learning trends.

Index Terms— Web 2.0, Social-Media, Facebook, E-learning, Survey, and Higher Education.

I. INTRODUCTION

Internet has become very sophisticated platform for anyone to share information, create and upload with the Web 2.0 technologies, therefore today's communities are more connected than ever before. Web 2.0 technologies are becoming popular and embedded in daily life routines. Particularly, among young generation in many places and other different social settings. The term includes Social Networking Sites (SNS), video sharing, blogs, wikis etc. Social media platforms offer marvelous learning facilities in every stage of life. Learning trends are changing rapidly, therefore technological methods for effective teaching and learning are dominating old dated traditional methods. Hence,

Social Media is one of the emerging technology which has been largely integrated, experienced and implemented globally in higher education. The social media applications bear a lot of educational insights. In this regard many studies have been carried out in order to investigate the impact and usage priorities of social media including Facebook for the learning enhancement. These studies consist on some specific university students, certain group of students, experiments and online surveys etc. Through these studies it is learnt that social media users not only access the rapid and large amount of data but also create content (text, writing, photo and video), react and remain involved individually/ collaboratively for learning purpose on the social networking sites. Precisely Facebook provide a blended virtual and real learning environment specially at higher education level. The important educational features provided by the SNSs including Facebook are; connectivity, information discovery and sharing, content creation and modification and knowledge/information aggregation. Therefore, we have presented literature review and conducted survey of 5 different universities of Sindh province, in order to analyze the usage priorities of university students. The Facebook is selected for this study because, it is most popular SNS across the globe. Currently more than 800 million people have joined Facebook in which 12.5% are active users in Pakistan. Therefore, this study is carried out in order to investigate authentic use of Facebook among university students. This paper is organized as follows; in section 2 we have presented literature review of SNSs including Facebook, section 3 elaborates the adopted research methodology and analysis of survey data is presented in 4th section. The 5th consists of discussion and some suggestions regarding positive use of Facebook and finally paper is concluded in 6th section.

II. LITERATURE REVIEW

A Personal Learning Environment (PLE) is a promising potential approach for the integration of formal and informal learning by using social media platforms and supporting self-regulated learning for students in higher education (Dabbagh and Kitsantas, 2011). Facebook as a learning platform, it

includes constructivism which invokes learning environments that are community-centered, Knowledge-centered, Learner-centered and Assessment-centered. Learning is a social activity resulting from a combination of interactions, collaborative activities and communication with others (Vygotsky; 1978). Which is believed to enhance critical thinking and cognitive skills. Facebook provide online learning platform that involves learning community with certain learning goals and outcomes to accomplish. It has been found evidently that the exchange of ideas and knowledge among participants in a learning community increase the motivation to learn (Hew; Koh; and Herring; 2010) and (LaRue; 2012). Social-media has influence the lives from home, school and workplace (A. Nawaz, G. Abbas, M. F. Javed, N. Mughal and M. Nabeel., 2015). Colleges and universities are embracing social media platforms and realizing the potential and implications of its usage (Rachel Reuben). According to (Mark Blankenship., 2010), the major inter-connected literacies of SNSs are Attention, participation, collaboration, network awareness and critical consumption. Facebook has numerous applications that support teaching and learning. It has been found to cultivate positive learning experiences as well as enhance connection between teacher and student (Mazer et al., 2007). The SNS allow for better collaboration between students, in line with the educational standard of social- constructivism (Huijser; 2008). Precisely, this collaborative potential of SNS technologies (Kelm; 2011) has led to calls for their adoption in teaching and learning. It is also found by (Baran; 2010) in a study of Turkish university students, that "more than 60% of students are communicating with their classmates through a module Facebook group helped, which stimulate them in their learning. However, the distinction is drawn between tutor-initiated and student-initiated uses of Facebook, with the most successful uses being those created by students themselves (Whedon; 2011), while tutor-initiated uses were seen as somewhat fake (Ipsos MORI; 2008). It appears that students see some benefit in using SNSs such as Facebook for certain aspects of peer communication, often focused around group work (Selwyn; Madge et al., 2009). The keys to effective learning in social-networking environments have been identified by (Salavuo; 2008) as participation, presence and ownership, with (Conole et al.2008) adding that students should have a sense of self control. According to (Mullen and Wedwick; 2008), the previous definition of literate was defined as a person who being able to read and write, but the literate of this century must be able to download, upload, rip, burn, chat, save, blog, Skype, IM, and share. A study on the learning of language among university students in Thailand, revealed that usage of Facebook was indeed a beneficial secondary tool in enhancing the students' learning experience. It is claimed by (Ziegler; 2007) that SNSs have the ability to transform students from being passive learners to becoming active and intentional learners, which is indeed the principle of student-centered learning. Facebook has been suggested by (McCarthy; 2010) as an ideal host for a blended learning environment; as it was

discovered to enhance peer relationships as students appreciated the interactive discussions that took place in the virtual-learning platform. The activity log students in their presented study showed an increase in learner engagement in the course, particularly with an assessment task. Recent evidence by (Ellison; Steinfield and Lampe., 2007; Kabilan, Ahmad and Abidin, 2010; Ng. and Wong., 2013) has shown that Facebook is one of the best way to enhance communication, instruct a more positive learning attitude, stimulate students to learn, encourage them to take their learning tasks more seriously and increasing their social capital via virtual interactions. The Facebook is practically observed as an ideal platform for informal learning by expanding course material in a group of various contemporary subjects which were not included in their class and to outside experts, thought leaders also included the option of participation with no interactive requirements. A way for learning strategy is also proposed by designing a professional communication model via social media (J. Cain, EdD, MS, and A. Policastri, PharmD, MBA 2011). The interviews conducted by (C. Pimmer, S. Linxen, Urs Gröbhel) of medical students in various resource limited environments by considering the usage of Facebook in which some of the students appropriated these social media technologies as educational tool, with many users, students and medical professionals from across developing and emerging nations. The analysis of interviews, on clinical and medical topics revealed rich E-learning and E-teaching practices in informal-learning context. The social media has embedded a negative image upon many minds however it is also perceived as a pathway to develop vital knowledge and social skills among students beyond their campus walls (Wang., Chen and Liang.,2011). The social media has been widely adopted by students for personal interconnection. However, for teaching and learning purpose there is need to fully explore social media application (Chris Evans., 2014). A research conducted by (Hargittai, 2008a; Jones & Fox, 2009; Matney & Borland., 2009) shows that Facebook is most popular social site among college students, between 85 to 99% college students. An important study conducted by (Selami Aydin., 2012) suggest some practical recommendation regarding Facebook usage in educational environment. Moreover, six important aspects of using Facebook users, reasons for its usage, harmful effects, educational environment, effect on culture, language, education, subject variable and Facebook relationships are discussed. Facebook is very common and user-friendly technology that can improve the communication between teacher-students and student-student, which is not provided in the traditional classroom environment (McCharty., 2010). The educational service on the Facebook is known as face-learning (Ahmet Naci Coklar., 2012). The Academic engagement and peer interaction are two attractive features of Facebook as learning environment (McCharty., 2010), and it is an important learning platform, because of its popularity and ease of use. The views of the students taken by (Bosch., 2009) in a research study reveals that Facebook as an educational

environment is more useful for lesson or subject material sharing, project planning and it is an interactive platform between teachers and students. A study conducted by (Gray, K., Annabell, L., and Kennedy, G., 2010) shows that medical students use Facebook informally for learning enhancement in undergraduate lives. It is found by (Anam Ali 2016) in a study that Facebook is being used for assessment preparation, collaborative learning, providing support for creating peer connections, sharing educational resources and organizing studies, therefore, it is suggested that in some conditions Facebook can be adopted as a balancing educational platform that allows learners to create a personalized space for online learning among peers. Except this other various research studies have been carried out in which social media is probed for educational use, some of these practical research studies have been made by (Anderson., 2007; Madge et.al 2009; Bosch., 2009; Yuen & Yuen., 2008; Kosik., 2007; Solomon & Schrum., 2007).

II. RESEARCH METHODOLOGY.

The questionnaire was designed with multiple options which consists of 16 questions. The participants were n=1000 undergraduate students of 5 different universities including Iqra University Karachi, Federal Urdu University Karachi, Shah Abdul Latif Universities Khairpur, IBA Sukkur and Mehran University of Engineering, Science and Technology (MUET) Shaheed Zulifquar Ali Bhutto Campus, Khairpur. In a questionnaire the views of the students were taken in order to investigate the access medium, number of friends and followers, post sharing activities, access of subject related material, main purpose of using Facebook and their usage priorities, in order to enquire genuine use of Facebook among at higher education level. The number of male students is 73% and 27% female students participated in this survey respectively.

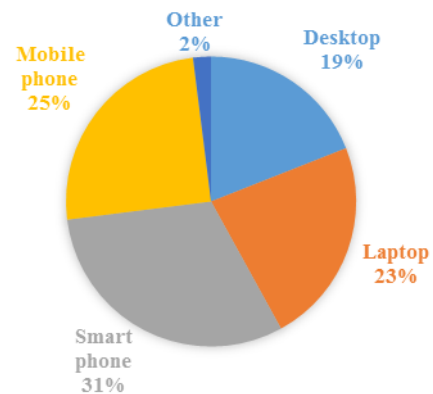
III. ANALYSIS OF SURVEY DATA

For the analysis of data obtained through questionnaire, we counted the responses of survey participants and presented in percentage. All the multiple choices are added in graphs which demonstrate the activities or interests and usage priorities of students who participated in this survey.

a. Access Mediums

In this survey students were asked for their access medium and it is important to note that large number of students/ participants access the Facebook by using smart phone/ mobile phones. The figures 1. shows detail of access mediums of survey participants, in which it is noticed that mobile and smart phones are the most frequently used access mediums.

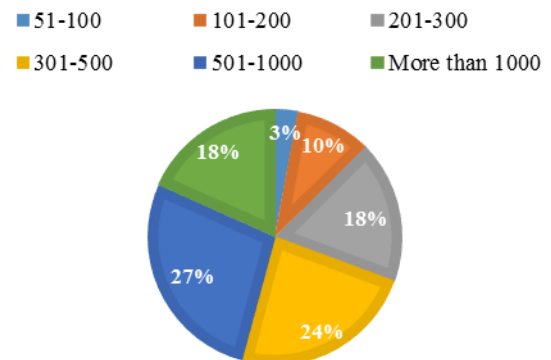
FIG I. GRAPH SHOWS FACEBOOK ACCESS MEDIUMS USED BY THE PARTICIPANTS.



b. Connections (Friends/followers).

The participants were asked in survey questionnaire that how much friends they have on the Facebook? In the response of this question it is revealed that a significant number of the participants have more than 500 and even more than 1000 friends, which is incredible number of connected people on a same platform. This number of connected people can collaboratively share and access the content/posts of each other that can equally benefit all the friends at one place in a uniform way. The detail of students' responses is presented in figure II.

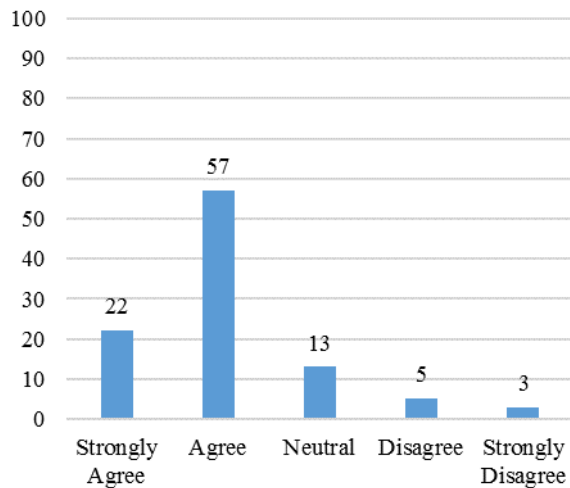
FIG. II. PRESENTS THE PERCENTAGE OF FRIENDS AND FOLLOWERS OF PARTICIPANTS.



c. Facebook for content sharing.

The participants/ students were asked that is Facebook an ideal tool for sharing contents? The significant number of participants 57% agreed upon the statements, the more details of students' responses is given in detail in figure 3.

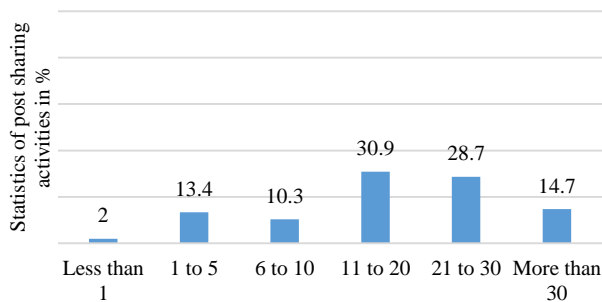
FIG. III. PERCENTAGE-WISE RESPONSES REGARDING FACEBOOK AS AN IDEAL TOOL FOR SHARING ACTIVITIES.



d. Activity log of content sharing

In the connection of above question we also asked about the Facebook usage in content or post sharing support. In figure no. 4, the responses of participants in graphical format are presented regarding access to the content or subject related material by using Facebook. This question was asked in order to record the weekly activity log of the survey participants which is presented in a graphical format.

FIG. IV. STATISTICS OF POST/CONTENT SHARING ACTIVITIES.

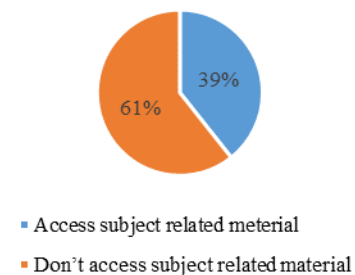


The figure 4, demonstrate the statistics of weekly sharing of content/post by the survey participants either personal or educational.

e. Access to the Subject related content

In terms of subject related study/content, Facebook is providing great applications for both students and teachers and include access to documents, research material, and presentations. These applications include links, SlideShare, To-Do List, JSTOR Search, WorldCat, Zoho Online Office, Google Docs, Podclass and LibGuides. Therefore, important question in survey is to investigate that how much students access the material related to their subjects or field of study? In response of this question, it is found that only 39% students responded positively that they find their subject related material but remaining 61% participants declared that they do not find the content related to their subjects. The reasons may be lack of awareness, students' interest and teachers' support. In the figure no. 5. detailed responses of the survey participants are presented.

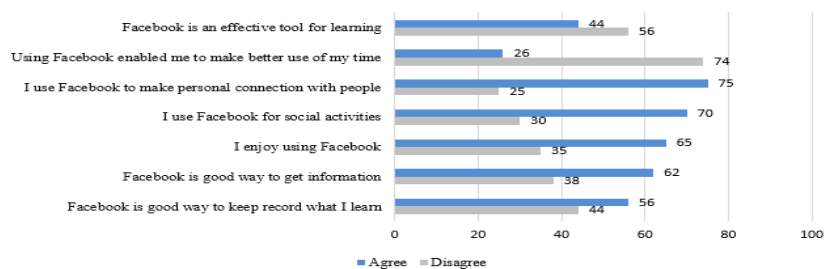
FIG. V. PRESENTS THE RESPONSES REGARDING CONTENT ACCESS



f. Usage priorities.

Currently Facebook is providing sophisticated resources for the teachers and students. The important applications for the students include study groups, campus buddy, Notecentric, skoolPool, class notes, Doresearch4Me and CiteMe etc. therefore most important part of this survey is to investigate the usage priorities of undergraduate students on the Facebook. These responses of survey participants have been shown in the figure no. 6, in the form of self-explanatory graph.

Fig. VI. GRAPH SHOWS THE USAGE PRIORITIES OF PARTICIPANTS IN PERCENTATE.



IV. DISCUSSION AND RECOMMENDATION

Social media has become integral part of the current generation. Although there is number of SNS like Facebook, Twitter, MySpace, Reunion, Babo and Friendster but Facebook has remained most commonly used social networking site. Although other SNSs have remarkably influenced every aspect of life including learning activities. Currently, every organization and institute etc. post their status via the SNS and share latest information and news through these social platforms. Facebook provides many facilities to its users like it is best platform for sharing information, provides secure and open discussion platform, individual and group chat, pages for marketing, social activities, updates and news, easy and secure sharing of data, voice and video calling facilities etc. Therefore, it is all in one social medium. These are the key attractive features of Facebook have attracted large community of the world. All these features can be very effective in order to augment learning either formal or informal. Moreover, availability of teachers will be very fruitful for the students in order to guidance and subject related discussion. Also teacher can monitor the activities, behavior and educational prorates of students.

In terms of research Facebook has become very ideal tool for research activities by providing the specific applications DoResearch4Me and CiteMe also it is good platform for survey, discussion, technical guidance and access latest information by joining interested research groups and specific pages the user can get lot of educational benefits. There are many research groups also which are benefiting to the scientific society. It is very ideal tool for the Awareness raising programs, keeping personal record and accessing current affairs. Therefore, it is very difficult to meet and discuss the problems with national and international subject experts, educationist, researchers, etc. but the SNSs make it not only possible but also more encouraging when user/student meet with these experts on this virtual and real environment, where large community share worth information and suggestions. In nutshell, attractive features of Facebook include easy access, interaction, information access to everyone, motivation, entertainment, multimedia support, information interpretation and provide a democratic environment. Along with these advantages there are some disadvantages also such as SNS are nested with entertainment, inaccurate information, informal convergence, information overload and lack of visual sharing.

In order to assure effective use of Facebook, teachers should motivate the students and guide them as students and get benefits from technological means of learning. Additionally, there are some suggestion also for positive usage and cooperative activities on Facebook.

- Attention is required regarding Facebook usage as an additional learning platform.
- Teacher-student interaction and removal of class hours' limitations.

- Training and group work about the educational use of Facebook or other SNSs.
- Increasing student participation by adding academic performance an assessment process.
- Supervision of teachers.
- Comments or involvement should be encouraged.
- Subject related sharing must be brief.
- Cooperative activities should be performed.

V. CONCLUSION.

In this paper we have presented literature review of important literacies of social media platforms specially Facebook. The existing literature suggests that Facebook is an E-learning environment, enhance and strengthen formal or informal learning. The interactivity and collaborative communication enhance cognitive and critical thinking skills. Specifically, attention, participation, collaboration, network awareness and critical consumption are the most important literacies of social media platforms. In the survey data, it is observed that majority of students use Facebook for social interaction with friends, family and also for news updates. However, very less number of students is involved in learning activities. The analysis of survey data reveals that access mediums have been also changed from traditional computers to smart phones. It is also observed that most of the participants remain less active in terms of sharing of content/posts or they just visit their Facebook accounts. It is investigated through this survey that most of the students are using Facebook as a traditional social interaction tool even at university level. Most of the features of Facebook have been unrealized by the majority of the students. However, some of the students assumed that, it could be used as an online environment for learning enhancement.

REFERENCES

- [1] Rasiah, R. Ratneswary V. "Transformative higher education teaching and learning: Using social media in a team-based learning environment." *Procedia-Social and Behavioral Sciences* 123 (2014): 369-379.
- [2] Wamba, Samuel Fosso, and Lemuria Carter. "Social media tools adoption and use by SMES: An empirical study." *Journal of Organizational and End User Computing (JOEUC)* 26.2 (2014): 1-17.
- [3] Arshad, M., t al. "SOCIAL NETWORKING SITES: A PATH OF LEARNING IN HIGHER EDUCATION." *Pakistan Journal of Science* 66.4 (2014).
- [4] Donlan, Leah. "Exploring the views of students on the use of Facebook in university teaching and learning." *Journal of Further and Higher Education* 38.4 (2014): 572-588.
- [5] Evans, Chris. "Twitter for teaching: Can social media be used to enhance the process of learning?." *British Journal of Educational Technology* 45.5 (2014): 902-915.
- [6] Dabbagh, Nada, and Anastasia Kitsantas. "Personal Learning Environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning." *The Internet and higher education* 15.1 (2012): 3-8.

- [7] Cheung, Christy MK, Pui-Yee Chiu, and Matthew KO Lee. "Online social networks: Why do students use Facebook?." *Computers in Human Behavior* 27.4 (2011): 1337-1343.
- [8] Yu, Angela Yan, et al. "Can learning be virtually boosted? An investigation of online social networking impacts." *Computers & Education* 55.4 (2010): 1494-1503.
- [9] Cho, Hichang, et al. "Social networks, communication styles, and learning performance in a CSCL community." *Computers & Education* 49.2 (2007): 309-329.
- [10] Cho, Hichang, et al. "Social networks, communication styles, and learning performance in a CSCL community." *Computers & Education* 49.2 (2007): 309-329.
- [11] Liao, Yi-Wen, et al. "Exploring the antecedents of collaborative learning performance over social networking sites in a ubiquitous learning context." *Computers in Human Behavior* 43 (2015): 313-323.
- [12] Ngai, Eric WT, Spencer SC Tao, and Karen KL Moon. "Social media research: Theories, constructs, and conceptual frameworks." *International Journal of Information Management* 35.1 (2015): 33-44.
- [13] Ngai, Eric WT, et al. "Social media models, technologies, and applications: an academic review and case study." *Industrial Management & Data Systems* 115.5 (2015): 769-802.
- [14] Lin, Jian-Wei, Hsieh-Hong Huang, and Yuh-Shy Chuang. "The impacts of network centrality and self-regulation on an e-learning environment with the support of social network awareness." *British Journal of Educational Technology* 46.1 (2015): 32-44.
- [15] Powell, David V., et al. "Educational Technologies for Maturing Democratic Approaches to Educational Practices in Ukraine." *Procedia-Social and Behavioral Sciences* 176 (2015): 378-385.
- [16] Nawaz, Asif, et al. "Impact of Social Media and Voice of Customer (VOC) in Decision Making Process an Empirical Study of Higher Education Institutions of Pakistan." *Middle-East Journal of Scientific Research* 23.6 (2015): 1069-1075.
- [17] Wamba, Samuel Fosso, and Lemuria Carter. "Social media tools adoption and use by SMES: An empirical study." *Journal of Organizational and End User Computing (JOEUC)* 26.2 (2014): 1-17.
- [18] Evans, Chris. "Twitter for teaching: Can social media be used to enhance the process of learning?." *British Journal of Educational Technology* 45.5 (2014): 902-915.
- [19] Rasiah, R. Ratneswary V. "Transformative higher education teaching and learning: Using social media in a team-based learning environment." *Procedia-Social and Behavioral Sciences* 123 (2014): 369-379.
- [20] MahboobRabbani, AnamJaveed, Muhammad Asif, Muhammad Ibrahim, "Impact of Social Networking Websites on Students learning", ISSN Vol.44, 2015
- [21] Munienge Mbodila, Clever Ndebele and Kikunga Muhandji, "The Effect of Social Media on Student's Engagement and Collaboration in Higher Education", *J Communication*, 2014.
- [22] Naveed Sultana, Social Media as Best Practices for Optimizing the Learning at Allama Iqbal Open University", *Secondary Education Journal* Volume 1, Issue 1 pp. 15-22.
- [23] Chris Piotrowski, "Emerging research on social media use in education: a study of dissertations", *Research in Higher Education Journal* Volume 27, January 2015.
- [24] Sameen Fatima¹, Umar Manzoor², Bassam Zafar², and Mohammed A. Balubaid³, "Analyzing the Impact of Social Media on Users", *IJCSI* may 2015.
- [25] Waleed Mugahed Al-rahmi, Mohd Shahizan Othman, Lizawati Mi Yusuf, "Using Social Media for Research: The Role of Interactivity, Collaborative Learning, and Engagement on the Performance of Students in Malaysian Post-Secondary Institutes", ISSN Vol 6 No 5 S2September 2015
- [26] Hira Hasnain, Anum Nasreen, Hamza Ijaz, "IMPACT OF SOCIAL MEDIA USAGE ON ACADEMIC PERFORMANCE OF UNIVERSITY STUDENTS", *IRMIC* 2015)
- [27] Carmen Holotescu, Gabriela Grosseck "An Empirical Analysis Of The Educational Effects Of Social Media In Universities And Colleges", Volume 2 Issue 1 Spring 2013
- [28] Paul A. Tess, "The role of social media in higher education classes (real and virtual) – A literature review", 2013.
- [29] Jeffrey Mingle, Dr. Musah Adams, "Social Media Network Participation and Academic.
- [30] Mitch Wolf, Marianne, "Using Social Media to Enhance Learning through Collaboration in Higher Education: A Case Study" *AAEA* August 12 – 14, 2012
- [31] Exploitation of social media among university students: A case study
- [32] Gray, K., Annabell, L., & Kennedy, G. (2010). Medical students' use of Facebook to support learning: Insights from four case studies. *Medical Teacher*, 32(12), 971-976.
- [33] Baran, Bahar. "Facebook as a formal instructional environment." *British Journal of Educational Technology* 41.6 (2010): E146-E149.
- [34] Ali, A. (2016). Medical students' use of Facebook for educational purposes. *Perspectives on medical education*, 1-7.
- [35] Pimmer, C., Linxen, S., & Gröhhbiel, U. (2012). Facebook as a learning tool? A case study on the appropriation of social network sites from mobile phones in developing countries. *British Journal of Educational Technology*, 43(5), 726-738.
- [36] Gray, K., Annabell, L., & Kennedy, G. (2010). Medical students' use of Facebook to support learning: Insights from four case studies. *Medical teacher*, 32(12), 971-976.
- [37] Cain, J., & Policastri, A. (2011). Using Facebook as an informal learning environment. *American journal of pharmaceutical education*, 75(10), 207.
- [38] Pimmer, C., Linxen, S., & Gröhhbiel, U. (2012). Facebook as a learning tool? A case study on the appropriation of social network sites from mobile phones in developing countries. *British Journal of Educational Technology*, 43(5), 726-738.
- [39] Alias, N., Siraj, S., Daud, M. K. A. M., & Hussin, Z. (2013). Effectiveness of Facebook based learning to enhance creativity among Islamic studies students by employing isman instructional design model. *TOJET: The Turkish Online Journal of Educational Technology*, 12(1).