

**A DIGITAL SOCIAL NETWORKING AS A TOOL TO  
ENHANCE STUDENT'S PERFORMANCE:  
CASE STUDY MEDIA COLLEGE**

**Wisam Abduladheem Kamil**

College of Agriculture/Thi Qar University

**Abstract**

At this time, most of the Arab countries were used these modern technologies just for the protest or indignation of the present services that provided from government or companies. In the developed countries were dominated on the empirical studies on the social networking tools in educational institutions. Regrettably, most of these studies were conducted in developed countries. In the same context, in the Middle East as a developing countries are deemed as the first place that harnesses the social networking tools in the political events through Arab Spring. Consequently, the current empirical study focused to determine the influence of the use social media among undergraduate student, in particular the Dhi-Qar University. The current study seeks in concentrating on the aspects of potentiality of the social media and its role in educational institutions specifically on the utilization of collaborative learning as well as the enhancement of the students' performance as a whole in terms of academics. The study selected the students randomly from the Mass Media in Thi-Qar University. With regard to data analysis, second statistical generation (SEM-PLS) technique and the first statistical generation (SPSS v.23) were used as the instruments for analysis purpose. The results indicated that, there was a strong positive relationship between the engagement and collaborative learning and collaborative leaning with student academic performance.

**Keyword:**Digital Social Networking, Interactive learning, University student, Quantitative approach, SEM-PLS

## **Introduction**

Basically, there has been a massive change in the students' engagement in line with the the potentiality of the use of ICT in learning context. One of these techniques is called Web 2.0. It has been, during the last few years, one of the most fashionable words for a whole range of evolutions regarding the Internet (Alotaibi & Bull, 2012). Web 2.0 applications are increasingly being utilized in the teaching and learning environment nowadays (Venkatesh, Croteau & Rabah, 2014; Lal, 2014). This Web 2.0 specifically delas with the use of social web that has the ability in allowing the audiences to actually collaborate, and engaged actively in the content creation as well as generating knowledge and information to be shared online (Grosseck, 2009).

On the other hand, Popoiu, Grosseck and Holotescu (2012) stated that, it has been observed that the social media actually holds a huge potential in assisting the students to use the Web 2.0 medium as thus, helping in improving the teaching and learning process as the it holds its strength in terms of its personalization, customization, and rich opportunities for networking and collaboration. In contrast, the excitement of the social networking tools may also impact student outcomes (Welch & Bonnan-White, 2012). Meanwhile, there were numerous review and critiques which identified 4 most important benefits of social media in higher education. These encompass the effort of improving relationship, improving learning motivation, supplying personalized course material, and developing collaborative competencies (Rifkin, Longnecker, Leach, Davis & Orthia, 2012; Wheeler, Yeomans & Wheeler, 2008).

Nowadays, most of students around the world are progressing in this era of technologies with the utilization of various popular social media in order to communicate, learn and finding entertainment and among the social media that they usually used are Youtube, Facebook and Twitter (Kamuh, 2014; Shafique, Anwar & Bushra, 2010; Thompson, Gray, & Kim, 2014). There are many studies has focused on the benefits of the social media tools in educational institutions. Regrettably, most of these studies were in the developed countries (e.g. DeAndrea, Ellison, LaRose, Steinfield & Fiore, 2012; Karpinski, Kirschner, Ozer, Mellott & Ochwo, 2013; Turner, Comston, Davis, Nasrin & Vaughn, 2011). Whilst, the developing countries, in particular the Middle East consider as a first place that harnessed the social media tools in the political events through Arab Spring. These events have a significant impact on changing people's perceptions of social media from entertainment tools to utilize the social media in real life by involvement the citizen in decision making, such as

Australian government and the education, such as Canada, as well as healthcare such U.S.A (Franklin & Van Harmelen, 2007; Grosseck, 2009; Hartman, Dziuban & Brophy-Ellison, 2007).

### **Motivation of The Research**

With the developments of these technological advancements, many higher educational institutions throughout the entire world now stated that they need to cater with the world's introduction of social media and network used. However, unfortunately, still in the Arab countries used social media only protest and indignation of the services (Eltantawy & Wiest, 2011; Wolfsfeld, Segev & Sheaffer, 2013). Where, Chaurasia, Asma and Ahmed (2011) stated that, most of the study of the Arab region concentrated on using Social networking with the revolutions that happened in Arab Spring. Whilst, this study concentrates to use social media with universities in Iraq as the Middle East country, in particular Dhi-Qar University. Recently, Dhi-Qar province selected as a first provinces to apply electronic government, as well as Dhi-Qar University portal among the best ten sites in Iraq. Indeed, this study considers the first empirical research in developing countries such as Iraq.

Grosseck (2009) on the other hand stated that, although it has been generally agreed that there are positive outcomes of using the social media in terms of teaching and learning, there is still a limited attention given by the educational institutions in the effort to adopt the social media in the educational process. This research particularly aims at investigating to what extent the social media can actually provide benefits in terms of the students' performance in Dhi-Qar University. Basically, it has been observed that there is still lack of information regarding this topic as the previous researches have not been sufficient especially when it comes to the investigation within this topic. It has been said previously that the development of social media actually contributed in the improvement of the experience in teaching and learning, besides having the ability in encouraging student's participation and collaboration (Lei, Krilavicius, Zhang, Wan & Man, 2012). Besides, it has been affirmed by Anderson (2007) that there is a need for this particular aspect to be critically understand especially in terms of the students' views and their ideas as well as experiences with the use of social media so that the implementation of the stated tools will be a success in the teaching and learning fields in higher educational institution.

As a result, this study strives to determine the most popular Social Media tools used among Dhi-Qar University students and additionally to focus on the potentials of social media within the instructional setting via collaborative learning and enhance the students' educational performance. In

fact, the present study in line with what mentioned by Al-Rahmi and Othman (2013) and Junco, Heiberger and Loken (2011), who pointed out that, there are scarcity of studies that focus the impact of the social media on the students' academic performance.

### **Literature Review**

The increased use of Web 2.0 has been observed as a great phenomenon in the past few years. Web 2.0 development is shown to improve teaching and learning, and encourage student's participation and collaboration. In reference to Grosscheck (2009), the web 2.0 also permits individuals in collaborating, involving actively developing contents of information and knowledge besides generating information sharing information online. Besides, the rise in the utilization of Social Networking tools has actually been seen as an international phenomenon within these past few years. Basically, social media helps in terms of the students having the opportunity in collaborating and interacting with the tools offered for different purposes such as sharing contents and information, organizing groups as well as the exchange of ideas verbally and these are useful in aiding the students in doing their academic exercises and activities i.e. holding a discussion and having collaboration for certain projects. This section deals with the previous studies about Web 2.0 and social media tools as well as the framework components.

### **Web 2.0**

The Web 2.0 has been observed as one of the most fashionable words for a whole range of evolutions regarding the Internet. According to Grosseck (2009), web 2.0 is the social use of the web which has the ability in providing the users the experiences to collaborate, create content, generate knowledge and share information online. Furthermore, Web 2.0, which was defined by Abram (2007) as a higher web actually was a shift form the Web 1.0 and other online tools used before such as e-mail and search engine. Web 2.0 encompasses of software, content syndication, messaging protocols, standards-based browsers and diverse client programs. Web 2.0 such as social media include the tools that are generally being extensively used within the class considering that it is free for the public. Welch and Bonnan-White (2012) stated that, the use of Web 2.0 for instance seems to be seen as a definite tool used in steering the students towards their engagement in learning besides having the ultimate potential in ensuring the increase in their academic performance.

### Web 2.0 in Education

The Web 2.0 applications have been popular mediums used in the learning process. Table 1 below depicted the integrated Web.2.0 in Higher Education:

Table 1: Intergrate Web 2.0 and Higher Education Adopted from Cobbs (2008) and Grosseck (2009)

Technology 2.0	Educational applications
<b>Blogging</b>	<ul style="list-style-type: none"><li>• utilization of blogs instead of normal real-world writing experiences</li><li>• used the blogs as a collective method specifically in one region to ease the process of monitoring</li><li>• Provide remarks and feedbacks (Teacher to students and students with other students)<ul style="list-style-type: none"><li>• utilization of peer networks in enhancing one's</li></ul></li><li>• replace and supply new information to the students besides providing them with specific tasks or assignments</li><li>• the use of feedback in blogs which can inspire students in assisting their friends to write besides getting responses to any stated question of which they will not be getting the same answers for every single time etc.</li></ul>
<b>Microblogging</b>	<ul style="list-style-type: none"><li>• “classroom community, exploring collaborative writing, reader response, collaboration across schools, countries, project management, assessing opinion, platform for metacognition, conference or as part of a presentation or workshop, for reference or research, facilitating virtual classroom discussion, creating a learning experience, a Personal Learning Network</li><li>• use for dissemination of teachers' publications and materials, locating original sources of ideas, quotes, allows for very focused and concrete feedback to students to refine their thinking and improve their skills, fostering professional connections, informal research, for storytelling, follow a professional, get feedback on ideas, event updates, live coverage of events, build trust, build a community etc.” (Cobbs, 2008)</li></ul>

<p><b>Wikis</b></p>	<ul style="list-style-type: none"><li>• “use for student projects; use for collaborating on ideas and organizing documents and resources from individuals and groups of students</li><li>• use as a presentation tool (as e-portfolios); as a group research project for a specific idea; manage school and classroom documents; use as a collaborative handout for students; writing: student created books and journaling</li><li>• create and maintain a classroom FAQ; as a classroom discussion and debate area; a place to aggregate web resources; supporting committees, working parties and university projects etc.”(Cobbs, 2008; and Grosseck, 2009)</li></ul>
<p><b>Photo / Slides Sharing</b></p>	<ul style="list-style-type: none"><li>• “share, comment, and add notes to photos or images to be used in the classroom</li><li>• inspire writing and creativity; create a presentation using the photos</li><li>• use tags to find photos of areas and events around the world for use in the classroom.</li><li>• post student presentations to an authentic audience and get feedback from around the world; share professional development materials and have it available anywhere, anytime, to anyone; post presentations of special events” (Grosseck, 2009)</li></ul>
<p><b>Video Sharing</b></p>	<ul style="list-style-type: none"><li>• “video professional development on own terms; create an own subject specific videos with students; use video sharing sites to find videos on current issues etc.” (Grosseck, 2009)</li></ul>
<p><b>Syndication of content through RSS</b></p>	<ul style="list-style-type: none"><li>• “professional development, time saving; updated information in teaching area</li><li>• information that are obtained from restricted sources; sharing work with other educators</li><li>• RSS feeds can potentially replace traditional email lists, reducing email overload</li><li>• RSS feeds can be used to keep course specific webpages as current and relevant as it needs to be etc.” (Cobbs, 2008; and Grosseck,</li></ul>

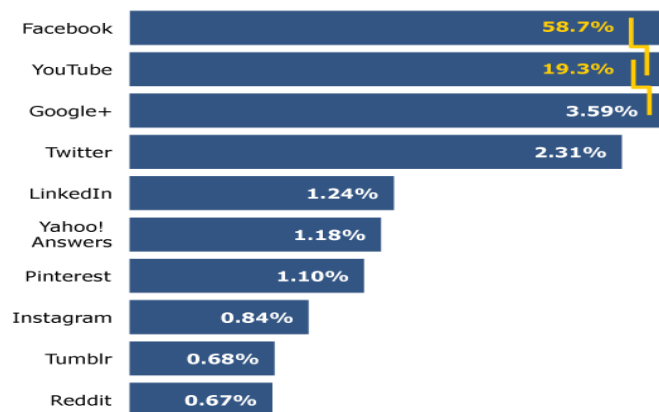
	2009)
<b>Social Bookmarking</b>	<ul style="list-style-type: none"> <li>• create a set of sources that can be accessed on any PC linked to the net; conduct research and share that research with friends</li> <li>• track author and book updates; groups of students doing a classroom project sharing their bookmarks; rate and evaluate bookmarks to assist with students in determining on usefulness of sources; setup a group tag so one can share the educational learning materials etc.</li> <li>• share one del.icio.us account between a number of different subjects of the specific educators for the purpose of information and knowledge sharing.</li> </ul>
<b>Social Networking</b>	<ul style="list-style-type: none"> <li>• “event support and continuation, team and community support, aggregation of social media applications, personal learning environments”(Cobbs, 2008)</li> </ul>
<b>Other tools</b>	<ul style="list-style-type: none"> <li>• “instant messaging increase the sense of community and accessibility which is required for collaborative learning; VoIP can promote international collaborations and understanding; calendars make calendar events, homework, anything you want available on mobile devices connected to the Internet</li> <li>• survey and polls, online diagrams and web-based word processor, on-line spreadsheet, social search, mind mapping; virtual worlds-virtual conferences and seminars, team meetings and collaboration spaces, simulations etc.”(Cobbs, 2008)</li> </ul>

There are many advantages in using the web 2.0 in educational settings as what has been explained in the table above such as the reduction of cost; flexibility as far as the possibility of selecting technologies is concerned, less complicated and quicker access to data. Apart from that, it also has the ultimate strength in providing huge prospect in terms of information and collaboration besides creating digital content.

## Social Networking Platforms

It is not a surprise that the web-based technologies now actually provide socializing features which have appeared to be the room for the users in sharing information, collaborate with each other besides using it as a community formation and extension (Suter, Alexander & Kaplan, 2005). Many researchers asserted using social media will assist student collaboration. For instance, Junco, Heiberger and Loken (2010) stated that, social media, derived from the social software movement, are seen as a group of internet websites, services and practices which actually promote the collaboration of users in terms of their participation as well as sharing information individually or as a community or group. Based on Bryer and Zavatarro (2011), it has been defined that social media is a form of “technologies that facilitate social interaction, make possible collaboration, and enable deliberation across stakeholders” (p. 327).

The social media utilization has been seen to expand globally within these few years. Until July 2011, Facebook surpassed 750 million users. LinkedIn on the other hand possessed over 100 million people who use it, Twitter had over 177 million tweets consistently each day, and YouTube reached 3 billion views consistently each day (Chen & Bryer, 2012). Whilst, the latest statistic conducted by Marketingcharts.com, illustrates the percentage for using the social media and the most popular around the world, see figure below:



**Figure 1:** Social websites based on number of visits

Social network tools utilization by college students is so rampant lately due to easy access to gadgets including smart phones, iPhone, black berry, tablets, iPad and laptops that are connected to the internet (Paul, Baker & Cochran, 2012). In reference to Ode and Egena (2014), although the pros of using social media in the students' achievements in academics are undeniable, actually, we need to take into account of the drawbacks as well as its effects on the academic performance of the over-



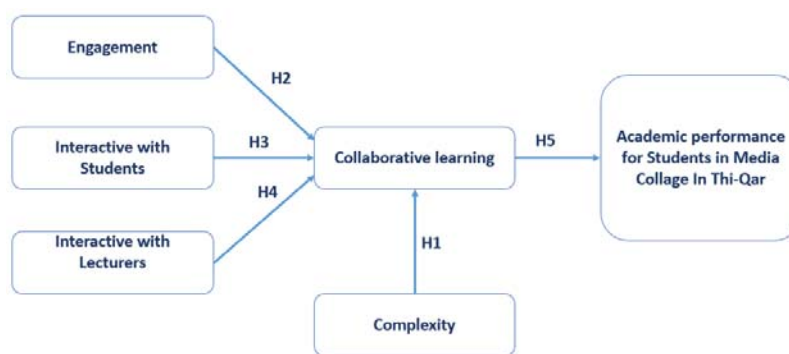
involved students as it is actually distressing. On the other hand, Tuckman (1975) stated that performance is the evidence knowledge, concepts, abilities, thoughts of an individual and he also mentioned that grades truly portrayed the overall performance of a scholar. The use of the internet is seen as the significant element that can impact the performance of the students academically either towards positivity or negativity. In addition, Shah, Lance Holbert, Dhavan (2001) also added the fact that student users are stricken by the internet and this effect is determined through the type of internet usage they intend to use in their daily lives. On the other hand, Linda et al., (2006) asserted a totally different idea where she stated that students who have access to the internet in a very frequent manner, actually using scored higher on reading skills test and had higher grades as well. Moreover, McLoughlin and Lee (2008) and Tay and Allen (2011) have stated that; it is recommended that the media is used in learning and teaching as it has its strength in facilitating the process besides enhancing final outcomes of students.

### **Effects of Social Networking on the Academic Performance of Students**

Creating social networking tools for university students strives at enhancing both collaborative study and social interaction (Silius et al., 2010). Certainly, the advanced utilization of the websites has been seen as a great (Al-rahmi & Othman, 2013). Aligned with the revolution of technology, it has been seen that what began out as being an interest for a group of enthusiastic people in terms of technology and computers has actually been used and applied in a social norm and becomes a popular trends for individuals all over the world. Consistent with Ellison, Steinfield and Lampe (2007), young people have particularly started using the internet mediums in communicating with peers, share information and personalizing their profiles so that they will be known by others online besides uploading things that are related to their lives to be shared online. Meanwhile, Khan (2009) referred that Social networking users often experience poor performance in terms of academics. In addition, Englander, Terregrossa and Wang (2010) stated that social media has a negative relationship with the overall performance in education and it is also driving students to major drawbacks than advantages.

Moreover, in line with Karpinski and Duberstein (2009), it has been mentioned that FB users dedicated a significant lesser amount of time in their studies compared to the non-users and as a result, they possess lower GPAs. Apart from that, Facebook is seen as a major reason that caused distractions among students of the current generation. Therefore, based on the evidences above, this research seeks to investigate the impacts of the social network usage on the academic performance in Iraq.

This study propose conceptual framework (see Figure 2), where, there are three factor Surrounded in the social media for collaborative learning in higher education, namely; Interactive with peers, Interactive with teachers and Engagement (Al-rahmi & Othman, 2013). Moreover, previous literature also affirmed that the complexity considered as a core element may effect on the collaboration learning when using modern technologies such as social media platforms (Al-rahmi, Othman & Musa, 2014; Jia, Zhao & Lin, 2010). As well as, collaborative learning improve the students' academic performance and this agreed with Al-rahmi, Othman and Musa (2014) and Leask (2004) and Wolf (2012).



**Figure 2** Conceptual Framework

## RESEARCH METHOD

### Data Collection

In the current empirical research, the researchers followed a quantitative approach by conducting a self-administrative questionnaire survey as their essential way of statistics collection. In fact, the questionnaire of the present study was advanced based on the previous literatures by other researchers and it was then spread to a random sample in Media College where the participation in answering it is fully voluntary. The reason of this study to decide the most popular Social Media tools used among Dhi-Qar university students and also to focus on the social media potentials within the educational setting by using collaborative learning in enhancing the scholars' educational achievements.

In fact, in quantitative method stated by Sekaran and Bougie (2013), it is significant to select the questionnaire language that is approximate to the knowledge level of the intended respondents. As the majority of the students in the university used Arabic language in their daily communication, the questionnaire items were specifically translated to Arabic language to ease the process of answering

the questions and it consisted of two languages to avoid misconception or misunderstanding of the terms and needs of the survey questions. Nevertheless, the researchers also were available in replying any possible questions brought up by the respondents in answering the questions. Generally, most of the respondents took less than about 15 minutes in total to finish answering the questions. At the end of the survey, 64 sets of questionnaire have been returned and collected by the researcher to be analyzed. The constructs of interest in this study were “Academic performance for student in Media Collage” (APSMC), “Collaboration learning” (CL), “Engagement” (ENG), “Complexity” (Comp), “Interactive with Lecturer (teacher)” (IWT) and “Interactive with student (Peers)” (IWS). The theoretical constructs were then practiced using the items that are validated and observed from the previous researchers i.e. Carter and Bélanger (2005) and Othman and Musa (2014) and Al-Rahmi and Othman (2013). Further, all of the items were measured in accordance to the 5-point Likert-type scale which begins with the statement “strongly agree” to “strongly disagree”.

### **Data analysis**

With reference to data analysis, this study used partial least-squares structural equation modelling (PLS-SEM) in analysing the questionnaires that were returned from the respondents. PLS-SEM complete statistical method actually permits the generation of the simultaneous evaluation and changes in the conceptual model which actually involves the significance that present between the latent variables (Anderson & Gerbing, 1991). PLS has been used in an extensively way when it involves concept testing and validation. In line with Fornell and Larcker (1981), PLS examines the psychometric homes and provides suitable proves of whether there is significance that exists. This technique is more suitable for the present study to investigate the factors that might influence to use social networking in the university. SmartPLS, version 3.0 was utilized in performing the data analysis of PLS-SEM. In the earliest step in the analysis, the content, convergent as well as the discriminant validate of the constructs are tested specifically by utilizing the measurement model. Meanwhile, the next step was to conduct a test in order to test the hypothesis as well as the structural model of this research.

### **Profile of respondents**

In this study, 39 % (n = 25) of respondents were male and 61 % (n = 39) were female. Their levels of education were classified into different groupings. It has been found that among all, 42% of them were Bachelor’s degree and 20% of them were Master degree holders. For other education groups, diploma and PhD holders were 19% and 17% respectively. With regard to computer experience,

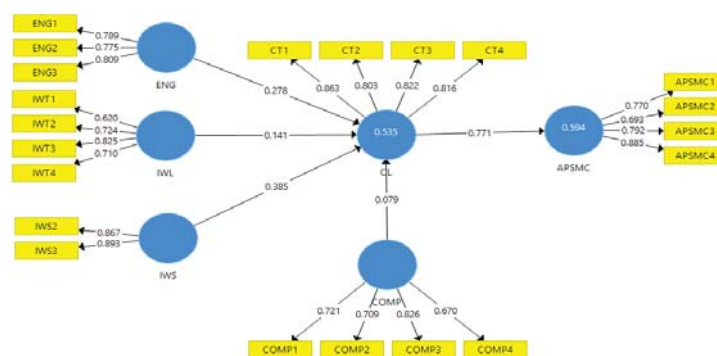
(41%) of respondents have more than 6 years of experience. For other groups, 1-3 years and 4-6 years were 23% and 36% respectively. Table 2 below shows the details of the above explanations.

**Table 2: Sample profile**

		Frequency	Percentage
Computer Experience	1-3 years	15	23.4
	4-6 years	23	35.9
	More than 6 years	26	40.6
Gender	Male	25	39.1
	Female	39	60.9
Education Level	First Year	12	18.8
	Second Year	27	42.2
	Third Year	14	21.9
	Fourth Year	11	17.2

**Assessment of measurement model (Outer model)**

The measurement model particularly in charged in measuring and assessing the constructs’ reliability and validity. For assessment this study using composite reliability, discriminate validity and convergent validity criteria (Chin, 2010; Hair et al. 2013). To evaluate the reliability of the reflective measurement model for PLS-SEM, indicator reliability and construct reliability must be assessed, as shown in Figure 3. To evaluate reliability of the indicator, it is crucial to check the loading on the related latent. A loading more than 0.7 is taken into consideration a suitable value in indicating the indicator reliability (Hair et al., 2011; Hulland, 1999; Gotz, Liehr-Gobbers, & Krafft, 2010). All these results we can get it by PLS Algorithm in SmartPLS.



**Figure 3.** Measurement model

Apart from that, it is important to note that the loadings of indicators of values 0.4 to 0.7 need to be discriminate best if by the act of deleting them may cause a rise in the values of CR and AVE above the threshold value (Hair et al., 2013). The CR and AVE test have actually been conducted in measuring the convergent validity. As stated by Fornell and Larcker (1981), the CR value for the constructs must actually be higher than 0.70 and meanwhile, for the AVE value, it must be higher than 0.50 when it comes to ensuring the convergent validity. The CR and AVE values for the constructs covered within the study model are all above desirable levels and these results are presented in Table 3.

Table 3. The results of assessment of the measurement model

<b>Constructs</b>	<b>Items</b>	<b>Loading</b>	<b>CR</b>	<b>AVE</b>
<b>Academic performance for student in social networking</b>	<b>APSMC1</b>	0.770	0.867	0.621
	<b>APSMC 2</b>	0.693		
	<b>APSMC 3</b>	0.792		
	<b>APSMC 4</b>	0.885		
<b>Collaboration Learning</b>	<b>CL1</b>	0.863	0.896	0.683
	<b>CL2</b>	0.803		
	<b>CL3</b>	0.822		
	<b>CL4</b>	0.816		
<b>Complexity</b>	<b>COMP 1</b>	0.721	0.823	0.538
	<b>COMP2</b>	0.709		
	<b>COMP 3</b>	0.826		
	<b>COMP 4</b>	0.670		
<b>Engagement</b>	<b>ENG1</b>	0.789	0.834	0.626
	<b>ENG 2</b>	0.775		
	<b>ENG 3</b>	0.809		
<b>Interactive with students</b>	<b>IWS2</b>	0.867	0.873	0.774
	<b>IWS3</b>	0.893		
<b>Interactive with Teacher</b>	<b>IWT1</b>	0.620	0.813	0.523
	<b>IWT 2</b>	0.724		
	<b>IWT3</b>	0.825		
	<b>IWT4</b>	0.710		

As for discriminant validate, it is clearly established whenever it happens that the AVE square root in reference to the construct mentioned is larger than the correlation existed between the construct and the other constructs within the same model (Chin, 1998). Table 4 reports the results of the discriminant validate based on the Fornell and Larcker.

Table 4. Discriminant validity of the variable constructs

Latent Variables	1	2	3	4	5	6
APSMC	<b>0.788</b>					
CL	0.771	<b>0.826</b>				
COMP	0.561	0.637	<b>0.734</b>			
ENG	0.548	0.539	0.572	<b>0.791</b>		
IWS	0.619	0.642	0.77	0.354	<b>0.880</b>	
IWT	0.508	0.62	0.725	0.562	0.688	<b>0.723</b>

On the other hand, with the correlation of the component scores of each of the team with all other factors, the cross-loadings were then obtained. In this particular study, the items vary from a lower bound (0.620) to an upper bound (0.05) as stated by Chin (1998). Besides, all items possess specifically high values in reference to their respective construct as seen in Table 5.

Table 5. The cross loadings factors

	APSMC	CT	COMP	ENG	IWS	IWT
APSMC1	<b>0.770</b>	0.575	0.236	0.453	251	0.33
APSMC2	<b>0.693</b>	0.333	0.309	0.343	0.346	0.377
APSMC 3	<b>0.792</b>	0.732	0.606	0.406	0.634	0.47
APSMC4	<b>0.735</b>	0.651	0.535	0.507	0.635	0.413
COMP1	0.343	0.355	<b>0.721</b>	0.594	0.379	0.513
COMP2	0.312	0.431	<b>0.709</b>	0.513	0.423	0.573
COMP3	0.434	0.592	<b>0.826</b>	0.317	0.393	0.603
COMP4	0.434	0.437	<b>0.670</b>	0.335	0.437	0.423
CT1	0.677	<b>0.753</b>	0.507	0.437	0.493	0.542
CT2	0.539	<b>0.703</b>	0.429	0.325	0.514	0.472
CT3	0.629	<b>0.722</b>	0.557	0.506	0.531	0.544

<b>CT4</b>	0.647	<b>0.716</b>	0.592	0.443	0.527	0.437
<b>ENG1</b>	0.553	0.463	0.453	<b>0.739</b>	0.322	0.466
<b>ENG2</b>	0.290	0.34	0.42	<b>0.775</b>	0.196	0.333
<b>ENG3</b>	0.419	0.45	0.473	<b>0.709</b>	0.300	0.472
<b>IWS2</b>	0.514	0.535	0.515	0.305	<b>0.867</b>	0.603
<b>IWS3</b>	0.434	0.592	0.326	0.317	<b>0.893</b>	0.603
<b>IWT1</b>	0.351	0.325	0.446	0.407	0.294	<b>0.620</b>
<b>IWT2</b>	0.337	0.392	0.545	0.337	0.405	<b>0.724</b>
<b>IWT3</b>	0.475	0.565	0.56	0.493	0.603	<b>0.725</b>
<b>IWT4</b>	0.292	0.464	0.545	0.34	0.611	<b>0.710</b>

The structural model estimates and evaluates the formulated hypotheses. Based on the results, only two out of five of the exogenous latent variables were supported, namely: Engagement and Collaboration learning, where t-value was 2.428 and 18.724 respectively.

Table 6. Hypotheses testing results

Hypothesis	Relationship	Beta	SE	t value	p value	Decision
H1	COMP -> CL	0.079	0.118	0.558**	0.577	Not Supported
H2	ENG -> CL	0.278	0.281	1.428**	0.016	Supported
H3	IWS -> CL	0.385	0.332	1.657**	0.008	Not Supported
H4	IWT -> CL	0.141	0.162	1.059**	0.290	Not Supported
H5	CL -> APSMC	0.771	0.785	18.724**	0.000	Supported

At the same time, Figure 4, illustrates the diagram of the outcome for the relationship between the endogenous and exogenous variables.

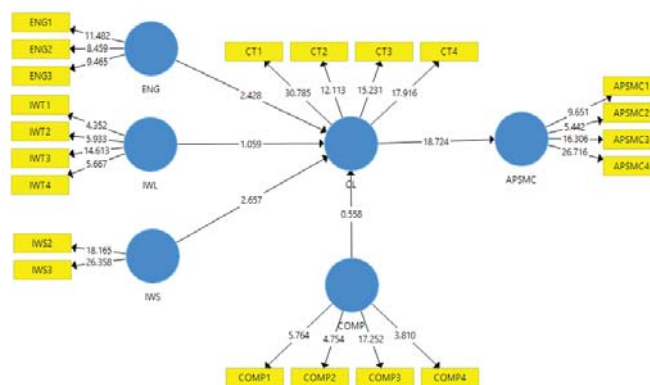


Figure 4. Structure model

As for  $R^2$ , as in Table 7, the  $R^2$  value for endogenous latent construct (APSMC and CL) revealed a level of prediction that seems to be accepted in an empirical research by which  $R^2$  of key target construct of the present study (APSMC and CL) has a high value of 0.594 and 0.535 respectively. The existing study also assists the previous finding via the use of  $Q^2$  predictive relevancy measure. Table 7. Results of  $R^2$ ,  $Q^2$ , and  $f^2$ .

Table 7. Volumes  $R^2$ ,  $Q^2$  and  $f^2$

Construct	$R^2$	$Q^2$	$f^2$
APSMC	0.594	0.486	-
CL	0.535	0.179	1.462
ENG	-	-	0.097
IWS	-	-	0.110
IWT	-	-	0.017
COMP	-	-	0.004

\*\*  $p \leq 0.05$

The obtained  $Q^2$  value, after running the blindfolding procedure in SmartPLS 3.0, where the omission distance of  $D = 7$ , was (0.486) for APSMC and (0.179) for CL. The value of  $Q^2$  is well above zero, indicating the predictive relevance of the path model. Lastly, this empirical study measured the  $f^2$  value for supported variables (CL, ENG, IWS, IWT and COMP). As shown in the Table 7, the effect size for IWT and COMP is Weak. Meanwhile, ENG is Moderate. The rest of the factors are strong.

### Discussion and Conclusion

Social networking is an online medium of interaction which let people build relations, share ideas and communicate information. These new technologies penetrated the workspace, facilitating organizational communication and knowledge work which was impossible in the past. Therefore, observing from these past few years and current situation, the utilization of social network among scholars in universities as well as the students in educational institutions has actually progressed as something essential in every area of knowledge-based activities. It has also been seen as a medium of getting connections either outside the learning area or in the learning areas i.e class, campus and etc. For this reason, several scholars believe that, the use of modern technologies is considered one of the most important elements that can influence educational performance of students positively or



adversely. Thus, this paper sought to assess the effect of the social networking platform's features on student's performance.

In order to achieve the target of this empirical study, the researcher has conducted the self-administered questionnaire with undergraduate students in the media collage. The study actually verified that a strong positive relationship was presence between the engagement and collaborative learning and collaborative leaning with student academic performance. This study will assist the educational institutions to take the advantage of this technology and after the addressing the obstacles universities can take advantage of these social networking platforms to enhance the learning process.

In fact, still the need for more empirical work on the adoption and implementation, as well as evaluating of the new technologies (such as e-learning and mobile learning) in higher education based on the staff's point of view lecturers. Therefore, we advise researchers to conduct more research on such technologies telecommunications in developing countries and unstable, such as Iraq.

## REFERENCES

- [1] Abram, S. (2007). *Web 2.0, Library 2.0, and Librarian 2.0: Preparing for the 2.0 World*. Paper presented at the Library and Information Services in Astronomy V.
- [2] Ajjan, H., & Hartshorne, R. (2008). Investigating faculty decisions to adopt Web 2.0 technologies: Theory and empirical tests. *The internet and higher education, 11*(2), 71-80.
- [3] Alotaibi, M., & Bull, S. (2012). *Using Facebook to Support Student Collaboration and Discussion of their Open Learner Models*. Paper presented at the Workshop on Web 2.0 Tools, Methodology, and Services for Enhancing Intelligent Tutoring Systems, Intelligent Tutoring Systems 2012.
- [4] Al-Rahimi, W. M., Othman, M. S., & Musa, M. A. (2013). Using TAM Model To Measure The Use Of Social Media For Collaborative Learning. *International Journal of Engineering Trends and Technology (IJETT), 5*(2).
- [5] Al-Rahmi, W. M., Othman, M. S., & Musa, M. A. (2014). The Improvement of Students' Academic Performance by Using Social Media through Collaborative Learning in Malaysian Higher Education. *Asian Social Science, 10*(8), p210.
- [6] Al-Rahmi, W., & Othman, M. (2013). The impact of social media use on academic performance among university students: A pilot study. *Journal of information systems research and innovation, 4*(12), 1-10.

- [7] Andersen, P. (2007). *What is Web 2.0?: ideas, technologies and implications for education* (Vol. 1): JISC Bristol, UK.
- [8] Anderson, J. C., & Gerbing, D. W. (1991). Predicting the performance of measures in a confirmatory factor analysis with a pretest assessment of their substantive validities. *Journal of Applied Psychology*, 76(5), 732.
- [9] Banks, D. A. (2006). Reflections on the use of ARS with small groups. *Audience response systems in higher education*, 373-386.
- [10] Bernard, H. R., & Bernard, H. R. (2013). *Social research methods: Qualitative and quantitative approaches*: Sage.
- [11] Bryer, T. A., & Zavattaro, S. M. (2011). Social media and public administration. *Administrative Theory & Praxis*, 33(3), 325-340.
- [12] Bumgarner, B. A. (2007). You have been poked: Exploring the uses and gratifications of Facebook among emerging adults. *First Monday*, 12(11).
- [13] Chaurasia, M., Asma, A., & Ahmed, A. (2011). *Opportunities and Challenges of Web 2.0 in Arab Education*. Paper presented at the Global Learn.
- [14] Chen, B., & Bryer, T. (2012). Investigating instructional strategies for using social media in formal and informal learning. *The International Review of Research in Open and Distance Learning*, 13(1), 87-104.
- [15] Chin, W. W. (2010). How to write up and report PLS analyses *Handbook of partial least squares* (pp. 655-690): Springer.
- [16] Cobb, J. (2008). E-learning 2.0 for associations. *Learning. Mission to Learn*. Retrieved February.
- [17] Conole, G., & Alevizou, P. (2010). A literature review of the use of Web 2.0 tools in Higher Education. *A report commissioned by the Higher Education Academy*.
- [18] DeAndrea, D. C., Ellison, N. B., LaRose, R., Steinfield, C., & Fiore, A. (2012). Serious social media: On the use of social media for improving students' adjustment to college. *The Internet and Higher Education*, 15(1), 15-23.
- [19] Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 1143-1168.
- [20] Eltantawy, N., & Wiest, J. B. (2011). The Arab Spring| Social Media in the Egyptian Revolution: Reconsidering Resource Mobilization Theory. *International Journal of Communication*, 5, 18.

- [21] Englander, Terregrossa and Wang (2010). Educational Review, journal of education. 62(1): 85 -96.
- [22] Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 39-50.
- [23] Franklin, T., & Van Harmelen, M. (2007). Web 2.0 for content for learning and teaching in higher education. *JISC* [www.jisc.ac.uk/media/documents/programmes/digitalrepositories/web2-contentlearningand-teaching.pdf](http://www.jisc.ac.uk/media/documents/programmes/digitalrepositories/web2-contentlearningand-teaching.pdf).
- [24] Götz, O., Liehr-Gobbers, K., & Krafft, M. (2010). Evaluation of structural equation models using the partial least squares (PLS) approach *Handbook of partial least squares* (pp. 691-711): Springer.
- [25] Grosseck, G. (2009). To use or not to use web 2.0 in higher education? *Procedia-Social and Behavioral Sciences*, 1(1), 478-482.
- [26] Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152.
- [27] Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Editorial-partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning*, 46(1-2), 1-12.
- [28] Hartman, J. L., Dziuban, C., & Brophy-Ellison, J. (2007). Faculty 2.0. *Educause Review*, 42(5), 62.
- [29] Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic management journal*, 20(2), 195-204.
- [30] Jia, Y., Zhao, Y., & Lin, Y. (2010). *Effects of system characteristics on users' self-disclosure in social networking sites*. Paper presented at the 2010 Seventh International Conference on Information Technology: New Generations (ITNG).
- [31] Johnston, P., Craig, R., Stewart-Weeks, M., & McCalla, J. (2008). Realizing the potential of the connected republic Web 2.0: opportunities in the public sector. *Cisco Internet Business Solutions Group (IBSG)*, available at: [www.cisco.com/web/about/ac79/docs/tl/Government20\\_pjv2\\_031209FINAL.pdf](http://www.cisco.com/web/about/ac79/docs/tl/Government20_pjv2_031209FINAL.pdf).
- [32] Junco, R., Heiberger, G., & Loken, E. (2011). The effect of Twitter on college student engagement and grades. *Journal of Computer Assisted Learning*, 27(2), 119-132.
- [33] Kamuh, D. (2014). The Impact of Social Media on Student Academic Performance of International Business Administration Program in Sam Ratulangi University Manado. *Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 2(3).

- [34] Karpinski, A. C., Kirschner, P. A., Ozer, I., Mellott, J. A., & Ochwo, P. (2013). An exploration of social networking site use, multitasking, and academic performance among United States and European university students. *Computers in Human Behavior*, 29(3), 1182-1192.
- [35] Karpinski, A., & Duberstein, A. (2009). *A description of Facebook use and academic performance among undergraduate and graduate students*. Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, CA.
- [36] Khan, U. (2009). Facebook students underachieve in exams. *Daily Telegraph*.
- [37] Kim, G. S., Park, S. B., & Oh, J. (2008). An examination of factors influencing consumer adoption of short message service (SMS). *Psychology & Marketing*, 25(8), 769-786.
- [38] Kwon, O., & Wen, Y. (2010). An empirical study of the factors affecting social network service use. *Computers in Human Behavior*, 26(2), 254-263.
- [39] Lakshman, M., Sinha, L., Biswas, M., Charles, M., & Arora, N. (2000). Quantitative vs qualitative research methods. *The Indian Journal of Pediatrics*, 67(5), 369-377.
- [40] Lal, P. (2014). Leveraging Web 2.0 for Online Learning. *Student-Teacher Interaction in Online Learning Environments*, 235.
- [41] Leask, B. (2004). Internationalisation outcomes for all students using information and communication technologies (ICTs). *Journal of Studies in International Education*, 8(4), 336-351.
- [42] Lee, M. J., McLoughlin, C., & Global, I. (2011). *Web 2.0-based e-learning: applying social informatics for tertiary teaching*: Information Science Reference.
- [43] Lei, C.-U., Krilavicius, T., Zhang, N., Wan, K., & Man, K. L. (2012). *Using web 2.0 tools to enhance learning in higher education: A case study in technological education*. Paper presented at the Proceedings of the International MultiConference of Engineers and Computer Scientists.
- [44] McLoughlin, C., & Lee, M. J. (2008). The Three P's of Pedagogy for the Networked Society: Personalization, Participation, and Productivity. *International Journal of Teaching and Learning in Higher Education*, 20(1), 10-27.
- [45] Mehmood, S., & Taswir, T. (2013). The Effects of Social Networking Sites on the Academic Performance of Students in College of Applied Sciences, Nizwa, Oman. *International Journal of Arts and Commerce*, 2(1).

- [46] Moskaliuk, J., Kimmerle, J., & Cress, U. (2009). Wiki-supported learning and knowledge building: effects of incongruity between knowledge and information. *Journal of Computer Assisted Learning*, 25(6), 549-561.
- [47] Neuman, W. L. (2006). *Social research methods: Qualitative and quantitative approaches*. Boston. Pearson Education Inc.
- [48] Nicholas, D., Gunter, B., & Rowlands, I. (2009). *The Google generation?'*: Oxford, Chandos.
- [49] Ode, A. I., & Egena, a. (2014). The Impact of Social Network Usage on University Students Academic Performance: A Case Study of Benue State University Makurdi, Nigeria. *International Journal on Computer Science and Engineering*, 6(7).
- [50] Othman, M. S., & Musa, M. A. (2014). The improvement of students' academic performance by using social media through collaborative learning in Malaysian higher education. *Asian Social Science*, 10(8), 210.
- [51] Paul, J. A., Baker, H. M., & Cochran, J. D. (2012). Effect of online social networking on student academic performance. *Computers in Human Behavior*, 28(6), 2117-2127.
- [52] Popoiu, M. C., Grosseck, G., & Holotescu, C. (2012). What do we know about the use of social media in medical education? *Procedia-Social and Behavioral Sciences*, 46, 2262-2266.
- [53] Rifkin, W., Longnecker, N., Leach, J., Davis, L., & Orthia, L. (2012). *Motivate students by having them publish in new media: An invitation to science lecturers to share and test*. Paper presented at the Proceedings of The Australian Conference on Science and Mathematics Education (formerly UniServe Science Conference).
- [54] Rifkin, W., Longnecker, N., Leach, J., Davis, L., & Orthia, L. (2012). *Motivate students by having them publish in new media: An invitation to science lecturers to share and test*. Paper presented at the Proceedings of The Australian Conference on Science and Mathematics Education (formerly UniServe Science Conference).
- [55] Rifkin, W., Longnecker, N., Leach, J., Davis, L., & Orthia, L. (2012). *Motivate students by having them publish in new media: An invitation to science lecturers to share and test*. Paper presented at the Proceedings of The Australian Conference on Science and Mathematics Education (formerly UniServe Science Conference).
- [56] Roblyer, M., McDaniel, M., Webb, M., Herman, J., & Witty, J. V. (2010). Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. *The internet and higher education*, 13(3), 134-140.

- [57] Sekaran, U., & Bougie, R. (2003). *Research Methods for Business: A skill building approach. John Wiley and Sons Inc., New York.*
- [58] Shafique, F., Anwar, M., & Bushra, M. (2010). Exploitation of social media among university students: A case study. *Webology*, 7(2), 7-9.
- [59] Sharpe, R., Benfield, G., Lessner, E., & DeCicco, E. (2005). Scoping Study for the Pedagogy strand of the JISC e-Learning Programme. *Final Report*, 9(06), 2005.
- [60] Silius, K., Miilumaki, T., Huhtamaki, J., Tebest, T., Merilainen, J., & Pohjolainen, S. (2010). Students' motivations for social media enhanced studying and learning. *Knowledge Management & E-Learning: An International Journal (KM&EL)*, 2(1), 51-67.
- [61] So, & Brush (2008). Students perceptions of collaborative learning, social presence and satisfaction in a blended learning environment: relationships and critical factors. *Computers & Education*, 51(1), 318–336.
- [62] Suter, V., Alexander, B., & Kaplan, P. (2005). Social Software and the Future of Conferences Right Now. *Educause Review*, 40(1).
- [63] Tay, E., & Allen, M. (2011). Designing social media into university learning: technology of collaboration or collaboration for technology? *Educational Media International*, 48(3), 151-163.
- [64] Thompson, C., Gray, K., & Kim, H. (2014). How social are social media technologies (SMTs)? A linguistic analysis of university students' experiences of using SMTs for learning. *The Internet and Higher Education*, 21, 31-40.
- [65] Tuckman, H. P. (1975). Teacher effectiveness and student performance. *Journal of Economic Education*, 34-39.
- [66] Turner, A. N., Comston, T., Davis, J., Nasrin, Z., & Vaughn, J. (2011). O5-S1. 04 Social media and chlamydia testing by university students: a pilot study. *Sexually Transmitted Infections*, 87(Suppl 1), A89-A90.
- [67] Shah N. K., R. Lance Holbert, Dhavan. (2001). " Connecting" and" disconnecting" with civic life: Patterns of Internet use and the production of social capital. *Political communication*, 18(2), 141-162.
- [68] Venkatesh, V., Croteau, A.-M., & Rabah, J. (2014). *Perceptions of effectiveness of instructional uses of technology in higher education in an era of Web 2.0.* Paper presented at the System Sciences (HICSS).

- [69] Virkus, S. (2008). Use of Web 2.0 technologies in LIS education: experiences at Tallinn University, Estonia. *Program: electronic library and information systems*, 42(3), 262-274.
- [70] Virkus, S., & Bamigbola, A. A. (2011). Students' conceptions and experiences of Web 2.0 tools. *New Library World*, 112(11/12), 479-489.
- [71] Waycott, J., Bennett, S., Kennedy, G., Dalgarno, B., & Gray, K. (2010). Digital divides? Student and staff perceptions of information and communication technologies. *Computers & Education*, 54(4), 1202-1211.
- [72] Welch, B. K., & Bonnan-White, J. (2012). Twittering to increase student engagement in the university classroom. *Knowledge Management & E-Learning: An International Journal (KM&EL)*, 4(3), 325-345.
- [73] Wheeler, S., Yeomans, P., & Wheeler, D. (2008). The good, the bad and the wiki: Evaluating student-generated content for collaborative learning. *British Journal of Educational Technology*, 39(6), 987-995.
- [74] Wolf, M. M., Wolf, M., Brady, L., Peszynski, H., Higgins, L., & Wolf, S. (2012). Using Social Media for Collaborations About Industry News in Higher Education. *American Association of Wine Economists: Princeton, NJ*, 1.
- [75] Wolfsfeld, G., Segev, E., & Sheafer, T. (2013). Social media and the Arab spring politics comes first. *The International Journal of Press/Politics*, 18(2), 115-137.