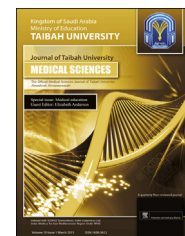




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Educational Article

## Utilization of internet by health colleges students at the University of Dammam



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### المخلص

**أهداف البحث:** تهدف هذه الدراسة إلى التعرف على موقف الطلبة تجاه استخدام الإنترنت ومحركات البحث المختلفة، ومواقع التواصل الاجتماعي، وأغراض الاستخدام، والمعوقات التي تواجه الطلبة أثناء استخدام الإنترنت في خمس كليات صحية بجامعة الدمام، بالمملكة العربية السعودية.

**طرق البحث:** أرسل استطلاع على الإنترنت لجميع طلبة السنة الثانية (٢٣١ طالباً) في خمس كليات صحية. وكانت الاستجابة من ١٣٩ طالباً. تضمنت الاستبانة ١٣ سؤالا وكانت الإجابة باستخدام مقياس ليكرت ذي الخمسة الاحتمالات، وبعض الأسئلة ذات النهايات المفتوحة وأسئلة عن التركيبة السكانية.

**النتائج:** يدرك طلبة الكليات الصحية أن استخدام الإنترنت مهم جدا لتحقيق النجاح الأكاديمي. وكانت المواقع الأكثر زيارة من المشاركين هي جوجل والفيس بوك. وكانت ردود الطلبة لا تختلف بشكل ملحوظ بين الكليات الصحية الخمس بجامعة الدمام.

**الاستنتاجات:** أظهر طلبة الكليات الصحية الخمس بجامعة الدمام موقفا إيجابيا تجاه استخدام الإنترنت لأغراض أكاديمية. كما ظهرت الحاجة إلى تقديم خدمات لاسلكية في الحرم الجامعي، وعمل دورات تدريبية للاستخدام المناسب لمصادر الإنترنت.

**الكلمات المفتاحية:** الحقل الأكاديمي؛ الكليات الصحية؛ الإنترنت؛ مواقع التواصل الاجتماعي

### Abstract

**Objectives:** This study aimed to explore students' attitudes towards using the Internet and various search engines, social media websites, usage purposes, and the barriers faced by students while using Internet in five health colleges at the University of Dammam, Saudi Arabia.

**Methods:** An online survey was administered to all 2nd year students in the five health colleges. The questionnaire included details about demographics, 13 questions with five Likert-scale responses, and some open-ended questions.

**Results:** Of the 231 students, 138 responded (response rate; 59.7%). The health colleges' students perceived that using the Internet was very crucial for their academic success. Google and Facebook were the most visited sites by the participants. The students' responses were not significantly different across the five health colleges at the University of Dammam.

**Conclusion:** Health colleges' students at the University of Dammam showed a positive attitude towards using the Internet for academic purposes. There is a need to provide wireless facilities on campus which will enhance the usage of Internet for educational purposes. Training courses about the appropriate usage of Internet sources are also emphasized.

**Keywords:** Academic field; Facebook; Google; Health colleges; Internet; Social media

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## Introduction

The use of the Internet among university students has greatly expanded. No aspect of student life is unaffected by the use of the Internet (the world's biggest library).<sup>1</sup> The internet is one of the most effective methods of communication. It is a cost effective and fast tool for health and medical education systems, providing many important applications, tools, sources of up-to-date information, and online databases.<sup>2,3</sup> Moreover, the use of the Internet provides an efficient way to access online textbooks, journals, seminars and conferences.<sup>4</sup> This use of the Internet encourages the integration of technology into the 21st-century classroom. Technology helps educators meet their students' expectations and abilities. The use of technology creates new opportunities for students to succeed and impacts their future careers.

Use of the Internet, specifically by college students, has been recognized as an important way of gaining information because it provides a wealth of knowledge on health education systems.<sup>5</sup> A study conducted at Qassim University in Saudi Arabia showed that male students preferred the Internet for obtaining media information.<sup>6</sup> Furthermore, university students use the Internet as much for social communication as they do for their education.<sup>7</sup> It has been documented that most students depend on the Internet and they use primary search engines to meet their information needs.<sup>8</sup> Shanahan (2007) also suggested the need for organizing workshops among students for developing information literacy skills.<sup>9</sup> Many researchers have shown the impact of integrating technology into the curriculum on the quality of teaching and learning.<sup>10-14</sup> In Saudi Arabia the integration of technology into the curriculum is strongly recommended by the National Commission for Academic Accreditation and Assessment (NCAAA) as one of the proposed learning outcome domains.<sup>15</sup> Conlon and several other researchers have indicated that using technology is a potentially powerful tool for extending educational opportunities and improving the efficiency of the process of teaching and learning.<sup>16,17</sup>

Due to the revolutions in technological trends, the majority of students are using smart devices and cell phones in addition to computers, which gives them access to online information and an innovative method of communication in their hands. Many students are using the Internet for different types of social media websites to create and sustain relationships with one another.<sup>17</sup> This phenomenon seems to be growing rapidly among students: they post whatever they want, create personal profiles, upload photographs and send public or personal text messages.<sup>18</sup> Research has indicated positive relationships between the use of social media and students' success. There is a positive correlation between the use of social media websites and student engagement.<sup>19</sup> Ellison, Steinfield, and Lampe (2007) revealed a significant relationship between Facebook use and students engagement.<sup>20</sup> Moreover, an experimental study also indicated a positive correlation between the use of Twitter and students' engagement in the classroom.<sup>5</sup>

The authors of this study have found very little research that has been conducted in Saudi Arabia related to the use of technology for teaching and learning. Many studies found positive attitudes among Saudi students towards the general

use of technology in colleges of education.<sup>21-23</sup> These findings are supported by another study published in Korea.<sup>24</sup> The present study was conducted to evaluate the utilization of technology among health colleges' students at the University of Dammam in Saudi Arabia.

Needless to say, the use of technology is restricted by some challenges or barriers. There are many obstacles to the use of technology. These barriers include technical support, heavy workload, difficulties in the adaptation of using new technology, breakdown of devices, and teachers' limited professional skills in using technology.<sup>25</sup> Other studies have also added that some instructors and students at the university level are comfortable with just emails and are less interested in using the technology in the classroom.<sup>26</sup>

This study was aimed at exploring students' attitudes towards using the Internet, different search engines, and social media websites, as well as their usage purposes and barriers faced by students while using the Internet, in five health colleges at the University of Dammam, Saudi Arabia. To achieve this aim an online questionnaire survey was sent to all of the students in the five colleges to find answers to the following research questions:

1. What are the health colleges' students' attitudes towards the use of the Internet?
2. What are the most popular smart devices used by the participating students to surf the Internet?
3. What are the most popular search engines used by the health colleges' students?
4. What social media websites are used by the health colleges' students?
5. Are there significant differences among colleges in their use of the Internet for increasing scores and helping students in their research projects? How important do they think it is to have wireless Internet connections in their colleges?
6. What are the challenges that students face when using technology?

## Materials and Methods

The study was conducted at the University of Dammam, which is located in the Eastern Province of Saudi Arabia. The university has five health colleges (Nursing, Pharmacy, Medical, Applied Medical Sciences, and Dentistry) along with 17 other colleges. Second-year students were considered in this study because it is in practical terms their first year in the major after finishing their first year at the Preparatory Year College. All the students were Saudis.

An online survey was sent to all second-year students (231 students) in the five health colleges. The sample of the study was composed of 139 second-year students from the health colleges at the University of Dammam. The survey consisted of twenty questions with five Likert-scale responses (1 = Strongly Disagree – 5 = Strongly Agree) and some demographic and open-ended questions. In the results section, the Likert scale was collapsed to form two categories. Responses of 1 and 2 on the scale were treated as *Disagree*, while 4 and 5 were treated as *Agree*. Number 3 on the scale was removed as it represents the neutral position.

The questionnaire was prepared by two experts in the medical profession and was validated by a psychometrician

who checked the internal consistency of the questions. The reliability was 0.73. Another colleague in the College of Medicine validated that the content/questions were suitable for the objectives of the study.

The study was analysed quantitatively. Frequencies of responses were reported and to find if there were any significant differences among the five health colleges in terms of the use of the Internet, a Chi-square test was utilized using the SPSS program.

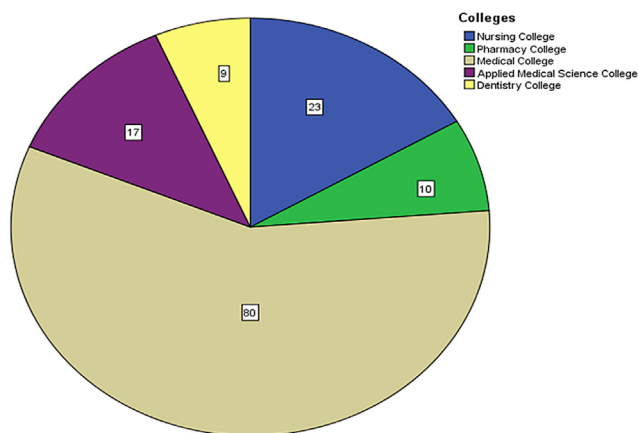
## Results

### Descriptive analysis

The respondents to the study survey were 139 students, for a 52% response rate, which is considered representative of the population. The participants' distribution is presented in Figure 1. The College of Medicine had the largest number of students and the College of Dentistry had the lowest.

The results showed that approximately 89% of all of the students indicated that using the Internet is crucial for excelling in their different courses. Only 8% of the students disagreed that using the Internet is important. 91% of students claimed that it is a necessity for their colleges to provide wireless Internet on campus. 72% of the students indicated that they will not be able to study effectively if they do not use the Internet. They insisted that the Internet makes teaching and learning more interesting. 70% of the participating students support using the Internet in all of their courses. Furthermore, approximately 94% of students believed that the use of the Internet helps them search for any information they need. In addition, 70% of them asserted that the use of the Internet improves their scores. When the students were asked about the barriers they face in using the Internet in their colleges, 58% of the participants responded that using the Internet is not a problem for them. Only 17% of the students have problems using the Internet (See Table 1).

The barriers or challenges that students face when using the Internet while in college are indicated clearly. Students stated that there was no wireless Internet, that technology tools need maintenance, and that they need training on how



**Figure 1:** Distribution of the participants in the five health colleges.

**Table 1: Health Colleges Students' Attitude Towards the Use of Internet.**

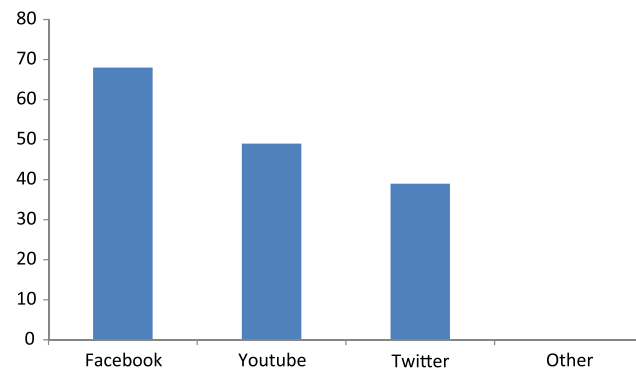
Item	Agree	Disagree
Using the Internet is crucial to excel in the different courses	89%	08%
It is necessary for colleges to provide wireless Internet in their campuses	91%	03%
I will not be able to study effectively if I am not using the Internet	72%	15%
I support using the Internet in all of the courses	70%	11%
I believe that the use of Internet helps me search for any information and do my research papers appropriately	94%	03%
The use of Internet improves my scores	70%	17%
Using the Internet is not a problem for me	58%	17%

to search for academic information. The students asserted that having wireless Internet would greatly help them to search for relevant information, download academic materials, review their courses, and translate documents, making achieving their learning goals easier.

When participants were asked which search engines they were using to obtain required information, all of them indicated that they were using Google. When asked what they use the Internet for, they responded that they mostly use it to contact family and friends and to perform some academic tasks. When asked which social media sites they were using, 68% of the students mentioned Facebook, while YouTube and Twitter were the second most-visited sites (Figure 2).

### Inferential analysis

The students were asked to mention if there are significant differences among the five health colleges in terms of the use of Internet for increasing their performance, helping them in their research projects, and the importance of having wireless Internet connection in each college. 89% of the participants agreed that the use of the Internet was important for all of the courses in their colleges. There were no significant differences among the five colleges, indicating that all students support the importance of using the Internet in all courses,  $\chi^2(4, N = 94) = 2.99, p = .55$ . They reported across the five



**Figure 2:** Use of social media sites in the five health colleges.

colleges that technology increases their scores. Furthermore, almost all students (96%) agreed that there should be a wireless Internet connection in all of the five colleges. There were no significant differences among those colleges,  $\chi^2(4, N = 132) = 2.951, p = .57$ . The data for the study were analysed using SPSS software v.22 to answer the research questions.

## Discussion

This study was conducted for second-year health college students (Nursing, Pharmacy, Medical, Applied Medical Sciences, and Dentistry) at the University of Dammam, Saudi Arabia. The purpose of the survey was to capture a wide range of responses on the purposes of Internet use.

The findings resemble those of many studies previously conducted at different universities.<sup>7,8,17–19</sup> Overall, participants (89%) showed positive attitudes towards using the Internet for educational purposes. Moreover, nearly three-quarters (70%) of students felt they were able to study effectively using the Internet, and felt that it makes teaching and learning more interesting and improves their scores. This conclusion agrees with research conducted by Conlon and Simpson (2003) and Kabilan (2010).<sup>16,27</sup> The information emerging from this study is very important because the Internet provides a wealth of scientific knowledge and innovative approaches.<sup>23,24</sup>

For social media, Facebook was the most used social media site visited by the participants. This finding confirms reports made on the most popular social networking sites as derived from eBizMBA Rank in January 2015. Participants in this study use Facebook to keep in touch with family and friends and to maintain or intensify relationships characterized by some form of social connection. In a study conducted by Ellison et al. (2007), it was shown that the main use of the Internet among college students was for communication.<sup>20</sup> Facebook seems well-suited to facilitate learning and social communication as a forum to promote student discussion, provides information about others, and makes one's connections visible to a wide range of students. This phenomenon has always held the promise of improving education and can make learning more student-centred.<sup>24</sup>

The results clearly showed that approximately 94% of students are using the Internet to obtain information for research. In addition, 70% of students asserted that the use of the Internet enhances their academic skills and academic grades.<sup>28</sup>

The results showed that almost all of the students are using Google as their search engine if they need any information over the Internet. This again agrees with the report

from the eBizMBA Rank, which is a constantly updated average of each website's Alexa Global Traffic Rank, and the U.S. Traffic Rank from both the Compete and Quant cast, which corresponds to global ratings,<sup>29</sup> and it is the same result as the findings of a study conducted at Al Qassim University by Yousef et al. (2013).<sup>6</sup>

The results further revealed some of the challenges faced the students in the health colleges at the University of Dammam. Students stated that there was no wireless Internet, that technology tools need maintenance, and that they need training. It was reported that students' use of the Internet will improve if institutions provide free Internet services and training on the use of the Internet to obtain information.<sup>30</sup> Solutions should be suggested by institutions to overcome these barriers. Instructors need to encourage student-centred teaching approaches through the introduction and activation of virtual learning systems for all health colleges at the University to help students meet and adapt to demands for professional competency.

## Conclusion

The majority of health college students at University of Dammam showed a positive attitude towards the use of the Internet, and their familiarity and experience with using the Internet in the academic field should be encouraged.

## Recommendations

More studies are needed to continue to monitor students' usage and attitudes towards the Internet. The central library at the University of Dammam should arrange training programs to orientate students with basic and advanced searching techniques for different database engines. We recommend that university officials introduce wireless facilities to all university classrooms and laboratories. Moreover, we recommend application of strategic planning processes in which teachers work together to explore more effective uses of technology in the ways that best meet their pedagogical needs. This can be through increased access to course content electronically, sharing resources, more scheduling flexibility, and better access to alternative education choices and alternative media such as digital games, etc.

## Conflict of interest

The authors have no conflict of interest to declare.

## Appendix

## The Questionnaire Used to Collect the Data

### College

#### What are the activities that you use technology for?

- Communicating with family and friends
- Academic tasks
- Other :

#### Which of the following search origin you use most?

- Google
- Yahoo
- Bing
- MSN
- Other :

#### Which of the following Social Media do you use most?

- Facebook
- YouTube
- Twitter
- MySpace
- Other :

#### Why you use technology in your study?

- To write notes
- To know all about the course
- To search for resources
- To download some references
- Other :



Using technology improves my grades

1 2 3 4 5

Strongly Disagree      Strongly Agree

My College does not care about using technology

1 2 3 4 5

Strongly Disagree      Strongly Agree

There is wireless connection in my College available to all students

1 2 3 4 5

Strongly Disagree      Strongly Agree

It is very crucial to have wireless connection available to all student in College

1 2 3 4 5

Strongly Disagree      Strongly Agree

I find it hard to use technology

1 2 3 4 5

Strongly Disagree      Strongly Agree

Using technology affects my grades negatively

1 2 3 4 5

Strongly Disagree      Strongly Agree

**What are the challenges that you face when using technology?**

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