

## Academic Staff Use of Web 2.0 Tools and Factors Affecting Its Implementation at Northern Border University in the Kingdom of Saudi Arabia

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### ABSTRACT

This study aimed to identify the current level of Web 2.0 tools used by the academic staff at Northern Border University (NBU) in the Kingdom of Saudi Arabia, for their academic pursuits. It also aimed to identify the multiple barriers that stand in the way of using Web 2.0 tools, concluding with suggestions to overcome such barriers at university level. The researcher has used the qualitative method (based on interviews), comprising of interviewing 25 male and female faculty members. The findings and revelations of this study are that at present the use of Web 2.0 technology by NBU faculty members is very much limited and therefore low, except for the use of social networking sites. The results of this research study showed certain barriers which include a lack of necessary knowledge about the use of Web 2.0 in education, as well as other potential factors such as a lack of training courses, poor technical support, and lack of access to computer labs at all times. Interestingly, resistance to change is one of the main factors among the academic members. Through this study, it has been suggested that faculty members make some potential improvements through the use of Web 2.0 tools. Spreading the culture to use Web 2.0 tools in education, intensifying training courses for academic staff, and setting a clear strategy plan for the integration of technology in education at university level.

**Keywords:** Web 2.0 Tools, academic staff, Northern Border University.

### Introduction

It is difficult to deny the role of technology in education. The use of technology has an effective role in learning efficiency and has had a positive impact on the construction of knowledge by learners (Kabli, 2013).

Technology, including Web 2.0, is often used in social communication, scientific and social research, and aids in teaching, as well as being used as a collaborative and enriching tool, e-Learning, and tools for project management

(Lee & Chang, 2015). Maloy, Verock-O'Loughlin, Edwards & Woolf (2014) describe Web 2.0 tools as "dynamic interactive tools working to expand how students think about the topics"

Web 2.0 has an intruding impact in all life activities where it has spread, such as blogs, wikis, social networks, etc., and has recently become widespread in all areas of life including economic, political, social and media, education, and other areas of life.



The architecture of Web 2.0

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The importance of the use of Web 2.0 tools in the educational field lies in several areas, such as helping academic staff and students to build knowledge and share their experiences through cooperation between the various users of these tools (Yaoyuneyong, Thornton, Lieu, 2013). It also helps to develop and build knowledge among the academic community, including students and faculty members, through cooperation and sharing in obtaining such knowledge (Bing & Wi, 2015). In addition, it has an important role in supporting students, increasing their motivation to interact and share experiences, as well as expanding their role in becoming proactive in order to gain the necessary knowledge (Ferdig, 2007), (Yuen, Yaoyuneyong & Yuen, 2011).

Ghoul (2012) reported on some Web 2.0 benefits in education, such as contributing to making education cooperative through editing, publication, comment, and providing cooperative feedback, achieving the independence of the user, ease of interaction, and increasing the sharing of information (text, images and video clips) through a set of tools such as wikis, blogs, bookmarking, RSS and social networks.

Many research works such as (Al-Jerasiy, 2015) and (Tucker, 2014) asserted that teachers have to adopt Web 2.0 technology in education because such technology can be used to create a motivational environment for learning, as well as a positive impact on student achievement and knowledge transfer.

Moreover, students can benefit from social networks, such as Facebook and Twitter, in social communication, discussing issues and social events, giving them the opportunity to present their ideas and suggestions freely through the services provided by these tools, such as video-sharing, social photo-sharing, post-sharing, blogging and link-sharing (Dahlstrom, De Boor, Grunwald, Vockley, 2011).

Moreover, most students use Web 2.0 tools not only for access to social media materials, but beyond that, for example, access to books and scientific articles (Johnson et al., 2013). Buzzard, Crittenden, McCary (2011) revealed that students prefer to use technology, including Web 2.0 tools, in the classrooms, often more than teachers. On the other hand, many studies have found that a small percentage of students prefer to use only a simple technical level in their studies (Kvavik, 2005), (Smith,

Salaway, Caruso, Katz, 2009).

So, it became very necessary to study the current level of Web 2.0 tools used by the academic staff at Northern Border University and to identify the barriers that limit this use, and explore some possible solutions to overcome those barriers.

### **Related Studies**

Several studies have been conducted on students and faculties at universities about the benefits of Web 2.0 and the importance of its use in educational environments (Ajjan & Hartshorne, 2008), (An & Williams, 2010), (Bertolo, 2008), (Buzzard et al., 2011), (Crook et al., 2008), (Yuen et al., 2011) and most results confirm the importance of the use of Web 2.0 in educational fields. A majority of these studies found a positive view from both students and faculty members about Web 2.0 use in education. However, most of the studies' results confirmed that Web 2.0 tools have not been used much in educational fields other than social networking sites such as Facebook and Twitter.

Rifai (2015) conducted a study at the Imam Muhammad bin Saud University in Saudi Arabia which revealed an improvement in the statistics achievement, and the attitude towards creating projects with highly statistical significance among students of experimental groups, compared to students of control groups.

A survey conducted at the Islamic University in Malaysia, using a sample of 287 students, found that Web 2.0 tools have too large a role in students' learning and exchange of knowledge. In addition, the study found eight items on ways to encourage and promote knowledge sharing among students at the university through the use of Web 2.0 tools, as follows: creating awareness, providing internet access at anytime and anywhere, ease of use, encouraging teamwork, availability of material, increasing motivation to learn, improving responsiveness, and providing facilities (Usman & Oyefolahan, 2014).

Majhi and Mahrana (2011) confirmed that the use of Web 2.0 technology within the academic community at universities is not satisfactory as it is described as low. In addition, the study revealed that social networking sites are used the most among academic staff and students, out of all the available tools. Moreover, the results found that

faculty members and students would actually prefer to use Web 2.0 tools in education, but do not possess the necessary knowledge and skills to use them effectively.

A study conducted by Tyagi (2012) produced the same results to some extent. This study was conducted at six Indian universities regarding the application of Web 2.0 tools in the Indian higher education sector, and aimed to analyze faculty members' Web 2.0 technology use in the learning environment. A questionnaire was distributed to the study sample of 300 faculty members, and the study found that the majority of faculty members used Web 2.0 tools for three major purposes – web-based teaching and research, interactive learning, and to keep up to date in their particular field.

Some researchers studied the obstacles that limit academic staff in universities from using Web 2.0 tools in the educational process. For instance, Dabour (2013) conducted a study at Taibah University in Saudi Arabia which revealed that the most important reasons for faculty members' non-use of Web 2.0 tools was a lack of knowledge and skills needed to use such tools, which may be attributed to a lack of adequate training. The study also revealed other reasons, such as a lack of time for faculty members, as well as inaccuracies in the information provided for using Web 2.0 tools.

A study at a particular community college revealed further reasons hindering faculty members' use of Web 2.0 in education, such as poor technical support and a lack of in-service training (Daher, 2014).

### Statement of the Problems

The importance of using Web 2.0 tools in the various areas of education can be seen in the previous introduction, as well as and its role in supporting faculty members and students and their development in many aspects, such as educational, intellectual, social, technical, and other personal aspects. Through my work in the field of educational technology at Northern Border University (NBU), I feel that there is a need to recognize the extent of the use of Web 2.0 tools by academic staff for academic purposes, and to identify the obstacles that limit their use of this technology, if any, in order to propose appropriate solutions to overcome such obstacles.

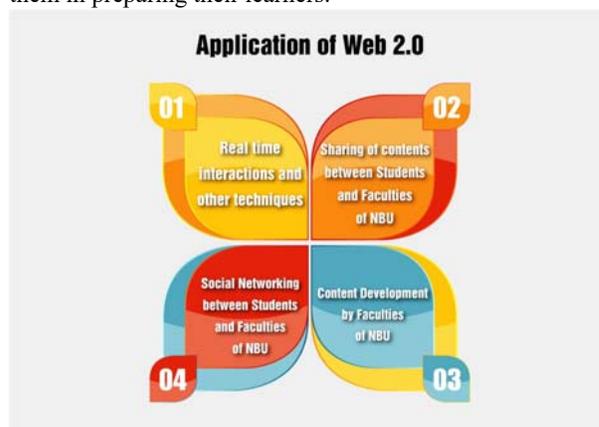
### Questions of the Study

This study seeks to answer the following three questions:

- 1- To what extent Web 2.0 tools used for educational purposes by the academic staffs at Northern Border University?
- 2- What are the challenges that hinder the use of Web 2.0 tools for educational purposes by academic staff at Northern Border University?
- 3- In what ways can the use of Web 2.0 tools be enhanced for educational purposes by academic staff at Northern Border University?

### Importance of the Study

The importance of this study lies in the importance of Web 2.0 tools and the benefits of their use in educational environments. The importance of this study also lies in the role of academic staff at Northern Border University in preparing students educationally, intellectually and socially, which makes it imperative for faculty members to take advantage of this technology in order to assist them in preparing their learners.



### Possible results of Web 2.0 application in Northern Border University (NBU)

Knowing the extent of the uses of Web 2.0 tools by faculty members in the education field at the universities will help the decision-makers to set the strategic plans for the integration of technology in education appropriately. Also, identifying the obstacles which limit the use of Web 2.0 tools helps decision-makers at the universities to develop solutions to overcome such obstacles, as well as the solutions and suggestions made by this study.

## **Research methodology**

### **Research approach**

This study was conducted at Northern Borders University (NBU) in the Kingdom of Saudi Arabia, using a qualitative approach based on an interview schedule.

### **Building tool of the study**

After a review of the theoretical literature and previous studies on the subject of this study, the researcher built and prepared an interview question tool, starting with preliminary questions about the initial data, such as specialization, academic qualification, and years of experience in teaching et al. The main questions follow, with the first section containing eight questions about the extent of use of Web 2.0 tools by academic staffs at NBU, in order to answer the first question of the study. The second section contains 13 questions about the obstacles that limit the use of Web 2.0 tools for educational purposes by academic staff at NBU, in order to answer the second question of the study. The third section contains three questions on the proposals to enhance and develop the use of Web 2.0 tools for educational purposes by academic staffs at NBU, in order to reach an answer to the third question of the study. The interview takes approximately 30 to 45 minutes.

### **Study Reliability and Validity**

After the construction of the tool in its final form, the researcher presented it to a group of experts, and then made adjustments including deleting, adding, and modifying questions based on the observations of the arbitrators. In addition, the researcher conducted a pilot study by interviewing four faculty members in order to ensure clarity of the sample questions, as well as determining the time it took to conduct the interview.

### **The Population of the Study**

The study's population consisted of the academic staff at Northern Border University in Saudi Arabia. Total population 504 represented both male and female academic staff of Academic year 2015/2016.

### **The Study Sample**

Qualitative researches initially aim to achieve an in-depth understanding of the problem under investigation

instead of generalization (Neuman, 2003). Thus, qualitative researchers can choose a relatively small sample size Bryman (2012), Davies (2007).

The present study is considered as an exploratory rather than universal study. Thus, 25 members of the academic staff were deliberately selected from different faculties in order to ensure that the sample included all university faculties, such as educational, medical, and administrative colleges, and also from the two sections of the university (male and female).

### **Data Analysis**

The semi-structured interviews were analysed through four steps: transcription of data, reduction of data, thematic analysis and constant comparative approach.

#### **Step One: Transcription of Data:**

Participants allowed me to record the interviews. In order to transcribe the interviews, I listened to each interview and wrote down what was said by the participants. I read the transcriptions three or four times which helped to make sure I had correctly heard and understood what had been said and thus ensured that my accuracy in writing every word which had been spoken by the participants. During the process of listening to the interviews, I tried to extract the main points and prepared a primary list of the themes (categories).

#### **Step Two: Reduction of Data:**

The semi-structured interviews generated a large bulk of data, which required me to read thoroughly besides transcribing the interviews for several times.

#### **Step Three: Thematic Analysis:**

In this study, thematic analysis was linked with the interview structure, which included a number of open-ended questions that followed a semi-structured approach. Thematic analysis was mainly based on the interview structure and interviews conducted with the academic staff members. The main themes were based on the major questions of the interview schedule, which were linked to the main research questions of the study. Several sub-themes emerged after intensive reading line by line of all interview transcripts. In general, thematic analysis was used in this study to search across the interviews to find the themes and sub-themes.

#### **Step Four: Constant Comparative Approach:**

A constant comparative method helped me in

comparing different views of the academic staff members.

### **Study Findings**

#### **How far and to what extent Web 2.0 tools used for educational purposes by academic staff at Northern Border University?**

After analyzing the interviews it was found that the use of Web 2.0 tools by academic staffs at NBU could be divided into two parts – the first includes using social networking sites such as YouTube, Facebook and Twitter, while the second part includes their use of other Web 2.0 tools, such as blogs, wikis and RSS.

#### **Social Networking Sites:**

The results of the study revealed an existence of differences in the extent that Web 2.0 tools are used by NBU faculty members. It was found that some faculty members' use of social networking sites is high, and their use of these networks in social communication is for more than the areas of education, for example, one of the participants reported that:

*I have good experience in the use of social network sites, but I rarely use these networks in the educational aspects with my students. I use them mostly to communicate with my colleagues.*

Another participant from a different college agreed, to some extent, with this view on the use of social networking sites, explaining that he understands the importance of the use of social networks in the educational field, but used these networks in education relatively little compared to other areas, stating:

*I am fully convinced of the importance of Web 2.0 tools' educational use, especially social networks, and realize the great benefits to academic staff and students at the university as a result of the use of these networks, but unfortunately, honestly, I'm not satisfied with myself because I use them in the media and social areas more than in education.*

Another participant in the study explained that most of his colleagues also use social networking sites, and most of this use is in the non-educational fields. He stated the following:

*Through my observation of my colleagues, many of them have accounts in social networking sites and some of them are very active and have many good shares, but*

*most of these post news and are social rather than educational.*

This is consistent with another faculty member's view, who revealed:

*In fact, I use social networking sites significantly but in non-educational aspects, as well as my colleagues in the college as I know, few of them use social networking sites on the educational goals.*

On the other hand there are some participants in the study, although only a few confirmed that they use social networks in the educational aspect more than they use them in other areas, one of the faculty members from the female faculty reported:

*Personally, I use Web 2.0 tools in teaching with my students significantly, especially social networks such as Twitter, Facebook and YouTube more than my use in social communication. For example, I have a YouTube channel especially for a course which I and my students feed with the information and presentations my students are often already done in the class, to be available to all students inside and outside the university."*

Another participant's response was consistent with this view in that he asserted that his main goal while using the social networking sites was educational, regardless of the ways of using such tools, and stated:

*The main objective of my use of social networking sites is to take advantage of such tools in the educational fields, either through brainstorming and discussing with my students, or with interest from outside of the university, or through communication with the experts in my field that have the same scientific interests.*

#### **Other Web 2.0 tools (blogs, wikis, RSS, LinkedIn, etc.)**

Interviews with faculty members revealed that a very large proportion of them do not use other Web 2.0 tools, such as blogs, wikis and RSS, in education, with some of them using these tools in other areas. One of the participants in the study revealed that he did not know of any Web 2.0 tools other than social networking sites, and revealed:

*I used to think that the Web 2.0 tools were only social networking sites. Honestly, I do not know about the other Web 2.0 tools, and I certainly do not know how I use them either in education or other aspects.*

One member of the academic staff asserted that he

does not use Web 2.0 tools like blogs, wikis and LinkedIn, in Education, and said:

*I do not use these tools (blogs, wikis, etc.) in my teaching with my students, nor in any other educational aspects because I do not know how to use those tools.*

Another participant had the same point of view as her colleague and explained that her use of such tools is often limited to only obtaining information through Wikipedia. She explained:

*I use these tools in a very limited way in education, I have never used blogs or LinkedIn, and only very infrequently I use Wikipedia to get information.*

One of the participants also said that he and his colleagues use Web 2.0 tools (such as blogs, wikis, and summaries adequate for the site) in education but only a very little, or not at all, and stated:

*To be honest with you, in my opinion and through my knowledge of my colleagues, me and most of the faculty members, our use of Web 2.0 tools in education is very limited and maybe non-existent for some of them, with the exception of social networking sites.*

A participant from the female section confirmed the previous view, saying in her own words:

*I think nobody uses other Web 2.0 tools in the educational field in our university.*

In contrast, one of the faculty members involved in the study had a different view from most of his colleagues on the extent of Web 2.0 use (blogs, wikis, and RSS) in education, where he confirmed that he uses these tools with his students, and stated the following:

*Yes, I use Web 2.0 tools in my teaching well to my conviction, and my perception of their importance benefits in many educational aspects, for example, I use blogs and I have a blog for one of my courses, and I have committed all of my students to establish a special blog for each one.*

### **Discussion of Findings**

It is clear that the uses of Web 2.0 at NBU by academic staff can be divided into two sections. The first section is the use of social networking sites, and the second section is the use of other Web 2.0 tools. It was found that most faculty members at this university use social networking sites largely, but often this use is in non-educational areas, such as social communication and

obtaining media materials. There are a small percentage of faculty members using social networking sites for educational purposes, whether with students or in any other forms. On the other hand, the results of the study revealed the low level of faculty members' use of other Web tools in education such as blogs, wikis, and LinkedIn, for example. It was found that a very small percentage of members use such tools, which are usually for non-educational goals. There is, however, a positive view and great conviction among most of the academic staffs of the importance of using Web 2.0 tools in the educational processes.

These findings are consistent with several studies (Maharana, 2011) which confirmed that the use of Web 2.0 technology in academic fields is not satisfactory as it is described as limited. The results also show that social networking sites are the first and foremost in use.

A study conducted by Tyagai (2012) revealed that the vast majority of faculty members used Web 2.0 tools for three main purposes: social communication, educational and research purposes, and for interactive purposes in educational fields.

Several studies (An & Williams, 2010), (Buzzard et al., 2011), (Yuen et al., 2011) have also revealed that there is a positive view from both students and faculty members about Web 2.0 and its importance in education, but they do not often use it in educational fields, except for social networking sites such as Facebook and Twitter.

### **What are the challenges that hinder the use of Web 2.0 tools for educational purposes by academic staffs at Northern Border University?**

The results of the study show a range of challenges that can be divided into two sections. The first is challenges relating to the university, and the second is challenges relating to academic staff:

#### **Challenges Relating to the University:**

The results of the study show many challenges relating to the university, with the first being a lack of training for faculty members. One of the participants reported:

*Yes, there are a range of barriers that limit my use of Web 2.0 tools in education, such as a lack of adequate training on the use of these tools in an effective manner*

in the educational process.

Another participant agreed with this, stating:

*In my opinion the most important reason for limiting the integration of Web 2.0 tools in education is the lack of familiarity with using these tools in the educational aspect, and this may be due to a lack of training provided to us from the university.*

Another participant in the study stressed that the lack of access to computer labs for academic staff and students during working hours is a challenge that hinders the use of Web 2.0 tools at NBU, stating:

*The use of technology in education, including Web 2.0 tools, requires the availability of computer labs at all times for the students and academic staffs, and this is missing in our university. I do not say there are no labs, there are labs in abundance of high technology and specifications, but the problem is the management of such labs, where they are open only for lectures, and close immediately after the end of the lecture.*

#### **Challenges Related to Academic Staff:**

One of the obstacles relating to faculty members at NBU is the inability to deal with Web 2.0 tools with high efficiency in the educational use, which has been attributed to lack of training, according to the findings of the study results in the previous sections. The results also revealed that among the obstacles relating to faculty members is a resistance to change by some academic staff, especially those who have more than 20 years of teaching experience. Most of them refuse to change and would prefer to follow the traditional methods of teaching. In addition to this, another obstacle is lack of confidence in the materials provided by Web 2.0 tools. One of the participants in the study said:

*I do not have sufficient knowledge of using Web 2.0 tools in the educational process, and the reason for this may be a lack of adequate training in this area.*

Another participant shared this view explaining that during his discussions with some of his colleagues, it turned out that most of them do not use Web 2.0 tools in education because of their illiteracy in their educational use, explaining:

*It is noted that in the university there are only a few uses of Web 2.0 tools in educational environments, and*

*the reason for this is that most of the faculty members do not have the skills to use such tools effectively in education.*

Some participants in the study felt that this could be a cultural cause of resistance to change among some university members. One of the participants stated:

*Some of my colleagues prefer using traditional ways of teaching and have refused technology tools in general, Web 2.0 tools in particular. I think the reason for that is resistance to change as a cultural reason which limits the integration of technology in education in our university and in other universities.*

Another faculty member agreed with the view of his colleague, and reported:

*With all respect to my colleagues, they do not use Web 2.0 tools in educational fields, especially the elderly. The reason for this, in my opinion, is their resistance to change, even for the better.*

Some participants gave clear reasons that differed from the previous reasons, with one revealing that the barriers to using Web 2.0 tools in NBU by academic staff is a lack of their accuracy and validity of the information available, and said:

*I do not really trust the information contained in Web 2.0 tools, and this is the most important challenge that limits my use of the Web 2.0 in education. As you know, websites and Web 2.0 tools are fed from the users themselves, for example, you can establish a YouTube channel and put in any information you want without being subject to scientific supervision, as well as Twitter, Facebook, Wikipedia, and other Web 2.0 tools.*

#### **Discussion of Findings**

From the above, it is clear that the factors that limit the use of Web 2.0 tools in education by academic staff at NBU can be classified into two groups - factors related to the university and factors related to the academic staff. Most important obstacles that relate to the university are lack of adequate training for faculty members on how to use Web 2.0 tools in education, as well as a lack of access to labs in the university's academic community. On the other hand, there are several factors relating to academic staff, such as a lack of necessary knowledge and skills to

use Web 2.0 tools in education, a lack of trust in the information provided by Web 2.0 tools, and a resistance to change among some faculty members, as well as a desire to continue to use traditional methods of teaching in education, especially those who have many years of experience in education.

These findings are consistent with several studies. For instance, a study conducted by Dabour (2013) revealed that the most important reasons that limit academic staff from using Web 2.0 at university are a lack of necessary knowledge and skills, as well as various inaccuracies in the information contained in some of the tools. The weakness in, and lack of, technical support and training is also another important factor that hinders faculty members' use of Web 2.0 in education (Daher, 2011).

In what ways can the use of Web 2.0 tools be enhanced for educational purposes by academic staff at Northern Border University?

The results of the study revealed many suggestions that have been made by academic staff at NBU in order to develop their use of Web 2.0 tools in educational areas, where it was felt that the most important of these suggestions is spreading the culture of technology use in education, including the use of Web 2.0 tools. A participant in the study reported:

*The most important way to support the use of Web 2.0 tools in education is to spread the culture of technology in the university community.*

Another participant also stressed the same point, and stated:

*I suggest establishing a committee at university level which aims to spread the culture of use of technology in general, and Web 2.0 especially, in the educational environment.*

Many participants in the study suggested providing several training courses with the aim of developing the skills and capabilities of academic staff in using Web 2.0 tools in educational environments. One of them mentioned the following:

*Yes, I have some suggestions, our university should provide many courses aimed at developing the skills of faculty members to use Web 2.0 tools in educational areas, and make the attendance of these courses compulsory for all academic staffs.*

A large number of participants agreed with this

suggestion, differing on whether such training should be compulsory or optional. One of the participants stressed:

*The university must intensify the training courses and provide instructors of a high level of expertise and skill in training on the integration of technology in education.*

Some faculty members also suggested opening computer labs during all working hours at NBU for faculty members and students to use at any time they wish. One participant in the study stated:

*It is very important that there be sufficient computer labs available to the members of faculty and students at all times. It is not logical to expect academic staff and students use Web 2.0 tools when the labs are only available to them during the time of their lectures, which is usually the case at the university.*

One of the participants suggested financial and moral incentives for academic staff using technology in education, as follows:

*The university should distinguish between the academic staffs who use technology in education and those who do not, by putting financial and moral incentives in place for those who use technology, including Web 2.0 in education, as in teaching or other educational areas.*

Some faculty members also stressed the importance of supporting the budget to integrate technology in teaching and learning environments at the university, with one participant in the study reporting:

*It is very important to allocate a huge budget for the integration of technology in education at the university because the technology in this generation has improved quickly, and cannot be dispensed within all areas of life in general, and in the field of education in particular.*

There are other suggestions such as deliberately forcing the faculty members to use technology, and making this an element of evaluation in their functionality reports, as one of the participants stated:

*I think the university should state that a certain degree of technology use in education is required, so that the faculty member uses technology in their teaching. This could be a cause of the development of use of technology for faculty members, including Web 2.0 tools.*

Some suggestions also confirmed the existence of a clear strategic plan to integrate the use of technology in higher education, where one of the participants stated:

*In my opinion, the most important way that can support the development of the use of Web 2.0 tools at the University by faculty members, is to have a clear university strategy plan for the integration of technology in education.*

Another member of the teaching staff at NBU proposed creating a committee at the university level which aims to work on the studies to diagnose problems that limit the use of technology, and to search for the possible solutions and support mechanisms to enhance use of technology for teaching staff at the university. He stated:

*My proposition is to have a higher committee at the university level concerned with the integration of technology in the university on all educational and administrative levels. So, this committee is working in a scientific way by conducting studies to determine the obstacles that hinder the integration of technology at the university, and identifies the mechanisms available to the university that supports the integration of technology, and works to promote, develop and propose new methods and ways to reach the highest levels of technology use in education in an effective manner at the university.*

### **Discussion of Findings**

It is clear from the above that there are many suggestions that may contribute effectively to the development of use of Web 2.0 tools in education by the academic staff at NBU. The most important of such suggestions is spreading the culture of technology uses in education, including Web 2.0 tools, the intensification of training courses aimed at developing necessary knowledge and skills of academic staffs to use Web 2.0 tools in educational environments effectively, setting a clear strategy plan for the integration of technology in education at the university level, and to provide financial and moral incentives to faculty members using Web 2.0 tools in their teaching projects.

There are many studies consistent with these suggestions, for instance a study conducted by Dabour (2013) recommended raising awareness of faculty members in the importance of using Web 2.0 tools, and to benefit from its services to support the educational process through training courses and attending conferences and lectures about enhanced learning

technology, and how to use technology, including Web 2.0 tools in education, effectively.

Rifai's (2015) study stressed that to develop Web 2.0 use in higher education, universities have to establish training courses, programs, and workshops to train the faculty members on how to take advantage of Web 2.0 technology. A study conducted by Alenezi (2014) confirmed that there is a need for a future plan for any educational institution to integrate technology in educational environments, and also stressed the need for moral and financial support to motivate faculty members to use technology in education.

### **Conclusion**

The findings of this study are that at present the use of Web 2.0 technology by NBU faculty members is very limited, and therefore low, except for the use of social networking sites. Their use of these social networking sites is mainly focused on the university's non-educational fields.

The results of this research study show certain barriers, which include a lack of necessary knowledge about the use of Web 2.0 in education, besides other potential factors such as a lack of training courses, a lack of access to computer labs at all times, poor technical support, and a lack of confidence of users to obtain available information with Web 2.0 tools. Interestingly resistance to change is one of the factors among some academic members.

Faculty members have been provided with many suggestions to make potential improvements through the use of Web 2.0 tools. They have been made aware of such tools and their roles in the education sector, including spreading the culture of using Web 2.0 tools in education; intensifying training courses for academic staff; setting a clear strategy plan for the integration of technology in education at university level, and encouraging faculty members through financial and tangible incentive exchanges for the use of technology in their educational pursuits.

### **Recommendations of the study:**

By analyzing the findings of the study, the researcher recommends the following:

1. Intensive training sessions for faculty members to

develop their skills in the use of Web 2.0 tools in education effectively.

2. Spreading culture of use of technology in the higher academic communities, including students, faculty members and administrators.

3. Necessity of computer lab availability at the

university for students and faculty members at all times.

4. Necessity of providing financial and moral incentives for students and faculty members in exchange for their use of technology, including Web 2.0 tools, in education.

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## مدى استخدام أدوات ويب 2.0 من قبل الهيئة التدريسية في جامعة الحدود الشمالية في السعودية والعوامل المؤثرة في ذلك

فرحان العنزي \*

### ملخص

هدفت الدراسة تحديد مستوى أدوات نظام ويب 2.0 المستخدمة من قبل هيئة التدريس في جامعة الحدود الشمالية في السعودية. كما تسعى إلى تحديد العوائق التي تمنع استخدام هذه الأدوات. وتم تطبيق الأسلوب الإحصائي وإجراء المقابلات حيث تم عقد مقابلات مع 25 عضو هيئة تدريس من الذكور والإناث. وقد أظهرت النتائج أن أفراد الكلية استخدموا هذا النظام بنسبة محدودة حيث انحصرت استخدامهم بمواقع الانترنت. كما تبين أن من العوائق التي تمنع استخدام النظام نقص المعرفة المتعلقة باستخدام النظام، عدم توفر التدريب، قلة الدعم التقني وعدم توفر مختبرات الحاسوب للاستخدام طيلة الوقت. وأوصت الدراسة بضرورة تطوير أعضاء هيئة التدريس من خلال استخدام أدوات ويب 2.0 في التعليم، تكثيف الدورات التدريبية للهيئة التدريسية ووضع خطط واستراتيجيات واضحة لاستخدام التكنولوجيا في المرحلة الجامعية.

الكلمات الدالة: أدوات ويب 2.0، الهيئة التدريسية، جامعة الحدود الشمالية.

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