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# Current Situation of Students' Portal and Their needs: A Case Study in Saudi Arabia Universities: Students Perspective

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#### **ABSTRACT**

The Ministry of Education in Saudi Arabia has always been working closely with Saudi Universities to improve the quality information and communication technologies (ICTs) in order to provide good services to the students. Although having good ICT infrastructure in the Saudi Arabian universities, still the quality of the student portal needs to improve. Therefore, the goal of this paper is to identify the current situation of student's portal and their needs in Saudi Arabia universities in order to improve their portal and encourage them to use the portal. An online survey questionnaire was collected from 91 students from various universities in Saudi Arabia. The result reveals that there is need to improve the student's portal and there are some issues faced them to use their portal such as: lack in portal content, lack in training and guidelines which effect on students to use the portal. Thus, by providing good portal which involves student's needs that will help the students in their study and also that will make the university to improve and develop the portal based on their student needs.

Key words: web site, university portal, Saudi Arabia, ICT

#### 1. INTRODUCTION

Nowadays, users' portals have been used everywhere, and the portal design becomes important to the users. With the advanced technology the important of aspect in user portal design is their demand that describe what the portal systems have to provide [1].

The Ministry of Education in Saudi Arabia has always been working closely with Saudi Universities to improve the quality information and communication technologies (ICTs) in order to provide good services to the students. Moreover, with the rapid development of information and communication technologies (ICTs), having a website is

inevitable for the organizations. The organizations have the opportunity of introducing themselves and their services that they offer. Also, Information and communication technologies, particularly those related to the internet, have changed the services that delivered in higher education. with the development of web portals, new features exposed to students which support interactivity and personalization. Amongst the significant of development in the digital era are portals. Higher education institutions are seriously involved in portals that turned to be an essential tool for delivering services and increased the interaction between students and academic staff [2].

University websites are destined to provide information to a wide variety of users. Users of these types of websites are mainly concerned with the ease of finding information in a timely manner [3, 4]. Prior research has confirmed that the success of a university website depends completely upon the users' use and satisfaction [5, 6]. The aim of this study is to investigate the current situation of student portal and to identify the student needs in Saudi Arabia universities. this paper organized into the following sections: literature review, study method, result and discussion, and conclusions.

#### 2. LITERATURE REVIEW

A well designed university portal will help the user to get access to different backend resources'; it acts as a gateway between the users and the backend resources [7, 8]. As explained earlier a university portal will help and provide its final individual customers with a specialised view which matches their need of both the software as well as the hardware resources that is very specific to the user's domain. One of the major challenge is to build a university portal which is updated regularly with the latest information and also is ready to adapt to the increasing services [9].

The study [10] indicated that there is continual improvement in the technologies that develop process of learning; however, the redesigning of portal content can help to improve technologies that provide in the portal. Mane and Panage [11] examine the level of usage library portal among students by improving the portal content. The results showed that the most important elements in the assessment the portal usage is the ease of use. Also, the designers should improve the portal and make sure that the portal easy to use.

Percia and Pamulaklakin [12] studied the learners' contentment with the portal's functionality, efficacy, look, ease of usage, and safety. These utilities deliver instant feedback to the learners with regards to their transactions with the University. The study highlighted that if the portal is enhanced, it might be utilised as a tool to raise the retention of learners in their courses of study

Gul and Saqib [13] Evaluate the level of usage of King Abdul Aziz website by using Heuristics. This methodology gave us the useful insight into the website and exposed various usage problems in that particular website. Throughout this assessment, Heuristic evaluation was conducted by experts as well as by the survey done. By the results it is clear that the website doesn't conform to many standards of design, content, user support and navigation.

A study carried out by Bringula [8], revealed the impact of faculty-linked issues, as well as the impact of web portal design-linked issues, on the usability of web portals. Subsequent to an examination conducted on ease of use, information content, availability, speed, and aesthetics factors, it was uncovered that commitment is a significant encouraging factor when it comes to the usage of internet tools by the elderly. This investigation also uncovered that web portal usability is influenced by both technical and non-technical issues.

Shaltoni, Khraim [14] investigate the factors affecting students' satisfaction with university portals in developing countries. The results reveal that user satisfaction is important indicator that determines the influence of service availability on student satisfaction.

Almahamid, Tweiqat [15] examine the level of usage of university portal by identifying the factors that effect on lectures to use their portal, the result revealed that there some issues facing them to use university portal such as: navigation, a quick response time, minimum download time, and portal accessibility issues. This study recommended university decision makers and web designers have to take into consideration these issues to increase the level of usage of the portal

# 3. METHOD

In order to achieve the study goal by investigating the current situation of students' portal and to identify their needs. This study uses quantitative method. An online survey conducted on students who have had experience in using the student portal. The data collection applied in different universities in Saudi Arabia to collected data about student portal issues. It was via online questionnaires by using Google doc and distributed to participants. The online survey sample was 91 participants conducted on the using students' portal from point of view students in different Saudi universities.

#### 4. RESULT AND DISCUSSION

The data collected via online questionnaires by using Google doc and distributed to participants to identify the issues that they faced when they use university portal. The following section is participants' response based on their opinion about the portal.

#### 1. Gender

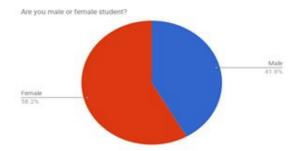


Figure 1: Gender

Figure 1 presents the gender of participants. Female participant percentage was (n=53, 58.2%) higher than male participants (n=38, 41).

# 2. Using University portal

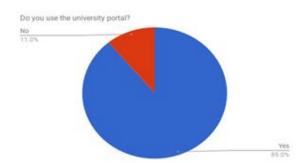
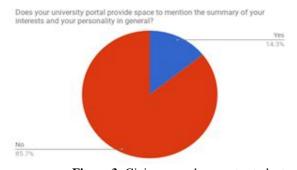


Figure 2: using university portal

Figure 2 shows the percentage of using university portal. Most of students (n=81, 89%) are using university portal.

# 3. Giving Enough Space to Student Include His Interest or Personality



**Figure 3:** Giving enough space to student Figure 3, shows that most of universities don't provide space to mention about student personality or interest. 85.7 % from the participants don't have enough space.

# 4. Details about Materials or Subjects

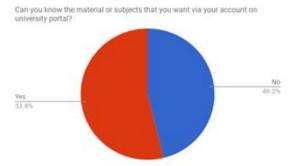


Figure 4: Details about materials or subjects

The percentage 46.2 % of participants in Figure 4 indicates that there is details about each subject. Also, the percentage 46.2 % of participants in Fig 4 indicates that some universities in Saudi Arabia don't have details about student materials or subjects, so this percentage consider high. It will cause some difficulties to student who doesn't have this service during their registration courses process via student portal.

# 5. Communicate with Lecturers



Figure 5: Communicate with lecturers

Figure 5 presents the percentages of participants (n=75, 82.4%) mentioned that there is no contact between student and teacher through student portal.

#### 6. Information about Other Students

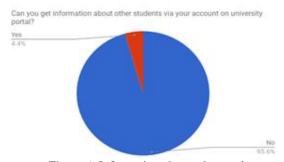


Figure 6: Information about other students

Figure 6 shows the highest percentage of participants (n=87, 95.6%) indicates that student portal doesn't provide knowledge sharing or information about the students such as publications, interest, and major...ect.

#### 7. University New Policies

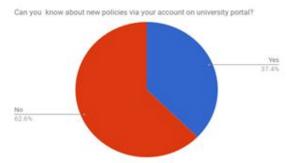


Figure 7: university new policies

Figure 7 presents the high percentage of participants ( n=57, 62.6%) indicates that there is no service in university portal make them to know about university policies.

# 8. University Activities

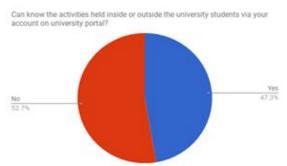


Figure 8: University activities

Most of universities in Saudi Arabia in Fig 8 don't provide news about their activities inside or outside the university that appear from participants percentage (n=48, 52.7%) that mentioned they can't know about university activities.

#### 9. Sharing Ideas With University Leaders

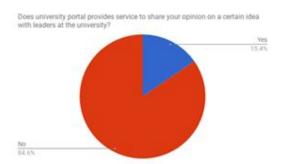


Figure 9: Sharing ideas with university leaders
Figure 9 shows that the highest percentage of
participants (n=77, 84.6%) who mentioned they can't
share their idea or contact with university leader via the

portal.

# 10. Providing Software

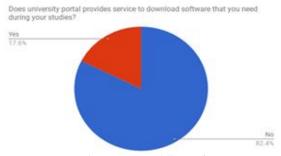


Figure 10: Providing software

Figure 10 shows that the most of participants (n=75, 82.4%) at universities in Saudi Arabia can't download the software that they need during their study because the service not provided in their portal.

# 11. Evaluation Assignments

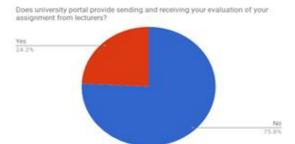


Figure 11: Evaluation assignments

Most of participants (n=69, 75.8%) mentioned that there is no notification or service that make them know about their assignments evaluation via student portal as shown in Figure 11.

#### 12. Grade Detail for Each Course



Figure 12: Grade detail for each course

The percentage (n=53, 58.2%) of participants indicates there is no details about their examinations or courses grades as shown in Figure 12.

#### 13. Notification Method

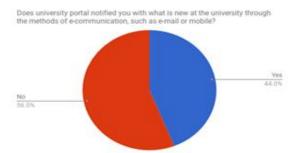


Figure 13: Notification method

Figure 13 presents that ( n=51, 56%) of participants mentioned there is no way to notify them about any new news at university via the portal.

#### 14. International Collaboration

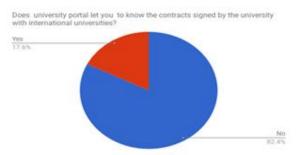


Figure 14: International collaboration

Figure 14 shows that the most of university in Saudi Arabia doesn't provide details about their collaboration with international university via the portal.

#### 15. Discussion with Other Student about The Study

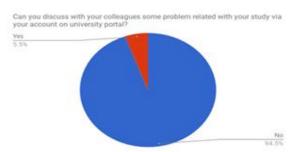


Figure 15: Discussion with other student about the study Figure 15 shows that (n=86, 94.5%) of participants can't discuss (online discussion) with other students about some problem related to their study.

#### 16. Receiving Lecturer Notes and Sharing Feedback

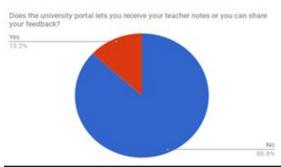


Figure 16: Receiving lecturer notes and sharing feedback Figure 16 shows that the most student can't receive their teachers notes or sending their feedback to their teachers via university portal.

#### 17. E-learning Materials

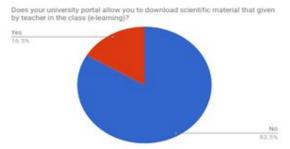


Figure 17: E-learning materials

The high percentage of participants (n= 76, 83.5 %) as Table shown in Figure 17 mentioned that their portal doesn't provide e-learning service to students to download their class's material.

# 18. Motivation to Use University Portal

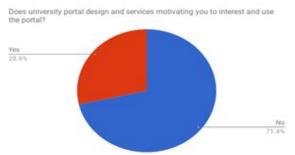


Figure 18: Motivation to use university portal About (n=65, 71.4%) of participants in Saudi universities as shown in Figure 18, don't have satisfaction about the design and services which provide in their portal.

From above findings, the study highlighted some of the problems faced by students in Saudi universities such as: lack of the portal content, lack in training and guidelines, lack interaction between students and their lecturers, and lack of awareness about using the portal. These issues effect on students to use their portal. Therefore, according to above results this level of using portal in Saudi universities doesn't

match the advantage of portal.

In the below table 1 presents the students' needs about their portal content.

Table 1: Student Feedback about Their Needs

Question	Student needs	Number
		of
		student
Is there any	Need to space in the portal	2
feature that	(profile) include interest,	
you need to	favorate,	
be include in	Easy contact with lecturers	20
student	about any related details to	
portal?	student courses.	
	Listing activities inside and	2
	outside university	
	Deep details about grade,	17
	attendance and absent	
	Design of university portal	3
	Online discussion between	5
	students	
	Download computer software	3
	Registration details (enrolling	3
	subjects, dropout)	
	Awareness of using portal	2
	E-learning	5
	Share decision with university	5
	leaders	
	International collaboration	2

Thus, this study attempts to improve student's portal based on their needs to motivate them to use their portal and increase their satisfaction. The university needs to develop their portal based on their users' demand such as: student or academic staff. To enhance their awareness about using portal in the academic field that will improve their level of interaction on the portal increase their satisfaction.

# 5. CONCLUSION

The expected function of the portal is changed over a period of time with the developing information technology. It has become more of a responsive portal and also has turned out to be very dynamic based on the demands and the requirements of the different academic community such as student. This study investigated the student portal issues that faced student. Also, this study tried to identify students' needs that related to their portal. In order to improve the students portal based on their demands and needs which will assist them in their study. The findings from this study highlighted some of the problems faced by students in Saudi universities such as: lack of the portal content, lack in training and guidelines, lack interaction between students and their lecturers, and lack of awareness about using the portal. Thus, the recommendation for future work is to improve the student portal based on their needs. That improvement will help the student in their study and will enhance their awareness about using portal in the academic field. Also, university should develop their portal in order to enhance the level of users' interaction (student and academic staff) on the portal and increase their satisfaction.

#### **REFERENCES**

- Varma, A., Observing User Interface Design Patterns for Websites from a User-experience Point-of-View. International Journal of Advanced Trends in Computer Science and Engineering, 2020. 9: p. 1981-1985.
- 2. Al-Busaidi, K.A., The payoff of corporate portal usage in an academic institution. Campus-Wide Information Systems, 2012. 29(5): p. 368-379.
- Mustafa, S.H. and L.F. Al-Zoua'bi. Usability of the Academic websites of Jordan's Universities an evaluation study. in Proceedings of the 9th International Arab Conference for Information Technology. 2008.
- 4. Saeed, S. and A. Amjad, Understanding usability issues of Pakistani university websites. Life Science Journal, 2013. 10(6s): p. 479-482.
- Alotaibi, M.B. Assessing the usability of university websites in Saudi Arabia: A heuristic evaluation approach. in Information Technology: New Generations (ITNG), 2013 Tenth International Conference on. 2013. IEEE.
- Hasan, L. Evaluating the usability of nine Jordanian university websites. in Communications and Information Technology (ICCIT), 2012 International Conference on. 2012. IEEE.
- 7. De Luca, V., et al., A Web API Framework for Developing Grid Portals. Procedia Computer Science, 2011. 4: p. 392-401.
- 8. Bringula, R.P., Influence of faculty-and web portal design-related factors on web portal usability: A

- hierarchical regression analysis. Computers & Education, 2013. 68: p. 187-198.
- 9. Thomas-Alvarez, N. and L. Mahdjoubi, Testing the effectiveness of a web-based portal system for the building control sector. Automation in construction, 2013. 29: p. 196-204.
- Abuhassna, H., et al., Examining Students' satisfaction and learning autonomy through web-based courses. International Journal of Advanced Trends in Computer Science and Engineering, 2020. 1(9): p. 356-370.
- Mane, M.B. and B. Panage, Use of Jayakar Library Portal: A Survey of Savitribai Phule Pune University. International Research: Journal of Library and Information Science, 2015. 5(2).
- 12. Percia, V. and R.L. Pamulaklakin, LEARNERS'SATISFACTION LEVEL WITH ONLINE STUDENT PORTAL AS A SUPPORT SYSTEM IN AN OPEN AND DISTANCE eLEARNING ENVIRONMENT (ODeL). Turkish Online Journal of Distance Education, 2015.
- 13. Gul, H. and M. Saqib, Usability Evaluation of an Educational Website in Saudi Arabia. VAWKUM Transactions on Computer Sciences, 2015. 8(2): p. 1-9.
- Shaltoni, A.M., et al., Exploring students' satisfaction with universities' portals in developing countries: A cultural perspective. The International Journal of Information and Learning Technology, 2015. 32(2): p. 82-93.
- 15. Almahamid, S.M., A.F. Tweiqat, and M.S. Almanaseer, University website quality characteristics and success: lecturers' perspective. International Journal of Business Information Systems, 2016. 22(1): p. 41-61.