

Research Article

Students' Tendencies for Internet Use in Tafila Technical University

Farhan M. Al Obisat

Department of Computer Science and Information Technology, Tafila Technical University,
Tafila 66110, Jordan

Abstract: This research investigates the Internet and e-services context in Jordan by performing a case study on the students of all colleges in Tafila Technical University. Internet services, also called electronic services or e-services, are among the main purposes of the web that utilize information and communication technologies. These services cater to different areas and sectors, especially to university students who are known to access the Internet regularly. The degree of Internet use is affected by three factors, namely, information, user and means by which the information is linked to the end user. The first factor refers to the scientific, commercial, economic, social and other data that can be accessed from the Internet. Tafila Technical University (TTU) students use the Internet to fulfill their personal needs, such as email (81% of the participants own an email account, but only 73% actively use these accounts).

Keywords: E-services, internet, student, technology, university

INTRODUCTION

Electronic services, or simply e-services, must be defined before investigating the details of such concept. Many researchers have proposed their own definitions of e-services and have introduced several other concepts related to the use of Information and Communication Technologies (ICTs) in several areas. For example, e-services have been defined as “those services that can be delivered electronically” (Javalgi *et al.*, 2004) and the “provision of services over electronic networks” (Rust and Kannan, 2003). Despite proposing contrasting definitions of e-services, researchers all agree that ICTs facilitate the online or electronic delivery of services to consumers. Therefore, these technologies are widely applied to transform traditional services into highly accessible online e-services, such as e-government, e-learning, m-learning, e-commerce, general information, social networking, email, general communication and online gaming.

Rowley (2006), e-services were defined as “...deeds, efforts or performances whose delivery is mediated by information technology. Such e-service includes the service element of e-tailing, customer support and service delivery.” The e-service definition of Rowley (2006) comprises three key parts, namely, service provider (e.g., public agencies), service receiver (e.g., users) and method of delivery (e.g., Internet).

Although the world is optimistic about the future of e-services, the delivery of these services in some developing countries, such as Jordan, is hampered by several challenges. The primary problem lies in the

usage and availability including speed, reliability and access of the Internet in these areas. These limitations have driven customers in developing countries to depend on personal transactions or traditional brick-and-mortar services.

This study aimed to measure the prevalence and use of electronic services between Tafila Technical University (TTU) students in various disciplines and years of study so as to identify the difficulties faced by students in the use of electronic services within the campus of Tafila Technical University and development of solutions to these obstacles of various kinds.

LITERATURE REVIEW

Bola and Ogunlade (2012) found that only 27% of the students in the University of Lagos, Nigeria, could access the Internet to send and receive email, access their online courses, take online exams and search for information.

Ogedebe (2012) examined how Internet access and e-service use could affect the academic performance of university students.

Sahin *et al.* (2010) examined how students use the Internet as a reliable source of information for their homework and literature review; they suggested that students should use trusted websites inside and outside of their universities when gathering information.

Anyira (2011) suggested that ICT laboratories, university libraries, staff offices and lecture rooms

should have high-speed access to the Internet. Academic staff members and students should also be trained on ICT and Internet use.

Tiemo *et al.* (2010) argued that libraries should offer many e-services, regulate the Internet use of students and provide each student with a username and passphrase that they could use if they wish to connect to the Internet.

Khan *et al.* (2011) found that students from the Islamia University of Bahawalpur, Pakistan, use the Internet to benefit their learning. Specifically, these students mostly browse online libraries, dictionaries, Google, learning management systems, online courses and encyclopedias when connected to the Internet; however, apart from lacking computer laboratories, the university does not offer a fast Internet connection.

Tariq *et al.* (2012) found that most students, regardless of age, own accounts in various social networking sites and suggested that the usage of these websites, considering their negative influence on education, should be strictly controlled.

Siraj *et al.* (2015) found that Internet use, e-services and online resources impose significant effects on the academic outcomes of students.

Al-Rahmi and Othman (2013) highlighted the positive effects of Internet, social network and social media use on the collaborative learning between students and teachers, which in turn could influence the academic performance of students.

ETHICAL, CULTURAL AND SOCIAL IMPLICATIONS OF E-SERVICES

The general perspective toward the ethical, cultural and social implications of online technologies could affect the efficiency of e-services and web-based technologies. Many Internet users have become increasingly concerned about their rights to privacy as more companies and government departments use the Internet to collect, store and publish data about these users. Moreover, some of these companies and government departments actively monitor the daily computer usage patterns of their employees (Asgarkhani, 2002a). Given the recent technological advances, many companies, government departments and individuals can easily amass information about a person without his/her knowledge. Other individuals contend that accessing such information may be unsafe, especially when such information is obtained by politically corrupt government agencies (Asgarkhani, 2002b).

Along with online technology solutions, the social interactions and developments in ICT have permitted several government departments to establish themselves online and freely disseminate information. These phenomena may prove challenging for individuals who highly value their social interactions.

The gap between computer literacy and use among individuals continues to grow despite the economic benefits of ICT. Education and information access have also assumed important roles in achieving economic prosperity.

Individuals from various countries do not have the same level of access to the Internet. Such display of social inequality is referred to as the “digital divide.”

The recent technological developments have allowed government departments to collect, store and publish data about certain citizens and organizations. However, despite allowing for some degree of flexibility, other individuals and businesses are supposed to access such data only within an acceptable level. Therefore, government departments must focus on how they control information, facilitate accessibility, ensure the integrity and accuracy of their data, ensure the timely delivery of data to remote or mobile sites and maintain the security of their public and community information (Asgarkhani, 2002b).

E- SERVICES IN JORDAN

Information technology plays a major role in promoting the growth of e-services, e-learning, e-technology and the economy. After developing its ICTs over the past two decades, Jordan has recently acknowledged the importance of ICT to its economy and to the sustainability of an e-government. Accordingly, Jordan has recently provided various e-services to many sectors (Alzboun *et al.*, 2013).

Several government organizations in Jordan have examined the direction of Internet, ICT and communication technology use in the country, especially in the university context (i.e., Tafila Technical University or TTU). This action calls for various local organizations to increase Internet accessibility, promote online activities and skills in communities, launch collaborative online services and expand the knowledge and experiences of citizens in supporting the country.

The Jordanian e-government is mostly unexploited despite the purported benefits of ICT to its sustainability. Appropriate methodologies that consider various human, technological and organizational factors, issues and problems in Jordan must be proposed. ICT is generally referred to as an “enabler” and may be regarded as a challenge. Therefore, the public or private organizations that ignore the potential value and use of ICT may lose an essential competitive advantage.

BENEFITS OF E-SERVICES

The benefits of e-services mostly revolve around the provision of high-quality services at a low cost and within a short time. However, e-services must reach various efficiency targets in terms of cost, production time, quality and service level impact (Asgarkhani, 2005).

The following benefits of e-services and e-technologies were proposed in (Al Obisat *et al.*, 2013):

- Allowing access to a large customer base
- Lowering the entry barrier to new markets
- Reducing the cost of acquiring new customers
- Providing customers with an alternative communication channel (e.g., Viber, Tango and Whats App)
- Increasing the number of services provided to customers
- Increasing the quality of services provided to customers
- Allowing services to be availed anytime and anywhere
- Boosting the perceived company image
- Helping companies gain a competitive advantage
- Providing companies with the opportunity to increase their customer knowledge

METHODOLOGY

The data were collected from the students of TTU in Jordan. A 14-item questionnaire that covered several e-services, including social networks and commercial, practical, educational and recreational services, was used as the data collection instrument.

SPSS was used to analyze the data and the findings were used to formulate the conclusions.

RESULTS AND DISCUSSION

Given the importance of Internet and information use among university students, how and for what such tool and information are used by these students must be closely examined. The degree of Internet use is affected by three factors, namely, information, user and means by which the information is linked to the end user. The first factor refers to the scientific, commercial, economic, social and other data that can be accessed from the Internet.

A majority of the participants use the Internet to fulfill their personal needs, such as email (81% of the participants own an email account, but only 73% actively use these accounts). This proportion indicates that some students are afraid of using such technology. Some students also reveal that they are distancing themselves from the Internet as much as possible. Figure 1 show the Internet and email behavior of the sample.

As shown in Fig. 2, 94, 62, 76 and 70%, respectively of the participants use the Internet to collect information, play games, listen to music and chat, respectively.

The above figure indicates that the university students need some time to free themselves from academic pressures. Given that most of them live far from home, these students use their social networks to communicate with their friends and families.

In terms of the means of Internet connection, 50% of the participants use the university-provided wireless network, whereas 82% use personal wireless devices

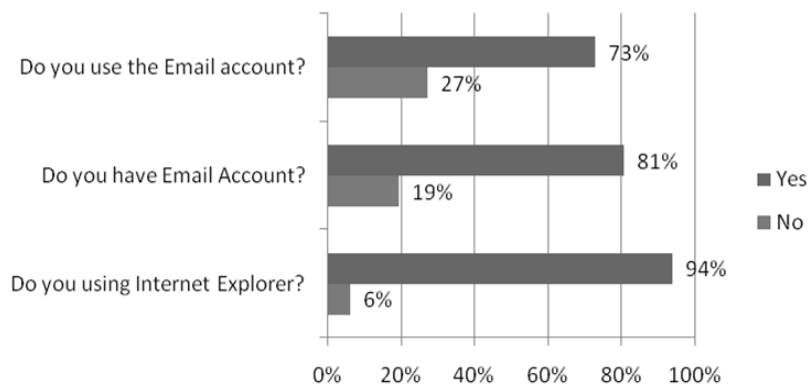


Fig. 1: Internet and email use

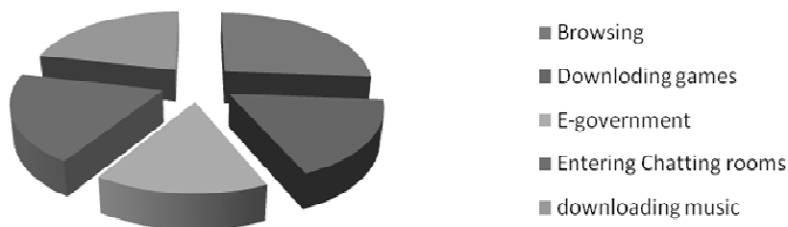


Fig. 2: Internet services



Fig. 3: Internet use for e-commerce and e-banking



Fig. 4: Use of mobile devices and the TTU-provided network for browsing the internet

Table 1: “Yes” and “no” count for all questions

#	Question	No (%)	Yes (%)
Q1	Do you use Internet Explorer?	6	94
Q2	Do you have an email account?	19	81
Q3	Do you use your email account?	27	73
Q4	Do you browse the Internet for e-commerce purposes?	55	45
Q5	Do you browse the Internet for educational purposes?	17	83
Q6	Do you browse the Internet to purchase tickets?	74	26
Q7	Do you browse the Internet for banking purposes?	70	30
Q8	Do you browse the Internet for gaming purposes?	38	62
Q9	Do you browse the Internet for employment-seeking purposes?	50	50
Q10	Do you browse the Internet for e-government purposes?	45	55
Q11	Do you browse the Internet for chatting purposes?	30	70
Q12	Do you browse the Internet for music purposes?	24	76
Q13	Do you use your mobile device to access the Internet?	18	82
Q14	Do you benefit from using the wireless network of your university?	50	50

and wideband residential access. Figure 3, 50% of the sample merely looks for services over the Internet, whereas the other half actually uses these services. Given that most students in the sample are relatively young, only 30% of them use the Internet for banking, whereas 45% use the Internet for e-commerce.

The widespread use of personal smart devices, such as wireless telephones, is also expected among the sample. Along with the availability of reliable, convenient and affordable wireless networks, the majority of the sample uses their personal devices to browse the Internet. Specifically, 82% of the sample uses their personal devices to browse the Internet.

Around 84% of the sample uses the Internet to look for educational materials, whereas 48% uses the Internet to look for jobs.

Figure 4 shows how the students who use the university-provided wireless network spend their time online. Surprisingly, only a few students actually utilize this network, which is provided by the university for free within its premises. Such low use can be attributed to the use of content-filtering software by the university as well as to the time when the students need to browse the Internet. Specifically, most students use their phones to browse the Internet within a very brief period, but they use their computers in their homes or

dormitories, which are outside the university premises, to complete their schoolwork.

Table 1 shows that the majority of the students answered “yes” to all of our questions, except for Q4, Q6, Q7, Q9 and Q14. Only 24% of the students are not inclined to use e-services. Moreover, most of these students tend to use mobile data instead of the university-provided wireless network to browse the Internet.

Most students have accounts on social networking sites as well as e-mail and this was a Addressed in many of the research in previous studies Accordingly, we recommend taking advantage of the presence of students in cyberspace in the teaching process through social networking and email sites as well to activate the Learning Management System (LMS) at Tafilah Technical University (TTU).

CONCLUSION

Internet use is widespread among the students of TTU. As expected, most of these students browse the Internet for personal and educational purposes rather than for economic and commercial purposes.

Future studies must examine the behavioral factors that motivate university students to browse the Internet

and use the e-services that are provided by their universities, such as that in the case of TTU.

Moreover, future studies must cover a wider group of students from various universities in Jordan to further understand the penetration of Internet use into the lives of students.

ACKNOWLEDGMENT

We thank Tafila Technical University and their students for their support and participation in the survey.

Dr. Farhan M. Al Obisat received his PhD in Computer Information Systems from the Arab Academy in 2009. He is currently working as an assistant professor at Tafila Technical University in Jordan. His research interests include e-technology, e-learning and software engineering.

REFERENCES

- Al Obisat, F.M., H.S. Alrawashdeh, H. Altarawneh and M. Altarawneh, 2013. Factors affecting the adoption of e-learning: Jordanian universities case study. *Comput. Eng. Intell. Syst.*, 4(3).
- Al-Rahmi, W.M. and M.S. Othman, 2013. The impact of social media use on academic performance among university students: A pilot study. *J. Inform. Syst. Res. Innov.*, 4: 1-10.
- Alzboun, F., H. Alatarwneh, M. Altarawneh and F.M. Al Obisat, 2013. An assessment for Jordan's E-government initiative projects: A conceptual framework. *Comput. Eng. Intell. Syst.*, 4(3).
- Anyira, I.E., 2011. Internet Services in Nigerian Private Universities: A Case Study. *Library Philosophy and Practice (e-journal)*, Paper No. 534.
- Asgarkhani, M., 2002b. e-Governance in Asia pacific. *Proceeding of the International Conference on Governance in Asia, Hong Kong*.
- Asgarkhani, M., 2002a. Strategic management of information systems and technology in an e-World. *Proceeding of the 21st IT Conference. Sri Lanka*, pp: 103-110.
- Asgarkhani, M., 2005. The effectiveness of e-service in local government: A case study. *Electron. J. e-gov.*, 3(4):175-166.
- Bola, O.O. and O.O. Ogunlade, 2012. Accessibility and utilization of internet service by graduate students in university of Lagos, Nigeria. *Int. J. Hum. Soc. Sci.*, 2(17): 254-258.
- Javalgi, R.G., C.L. Martin and P.R. Todd, 2004. The export of e-services in the age of technology transformation: Challenges and implications for international service providers. *J. Serv. Mark.*, 18(7): 560-573.
- Khan, S.A., A.A. Khan and R. Bhatti, 2011. Internet access, use and gratification among university students: A case study of the Islamic University of Bahawalpur, Pakistan. *Chinese Librarianship: Int. Electron. J.*, 32: 1-14.
- Ogedebe, P.M., 2012. Internet usage and students' academic performance in Nigeria tertiary institutions: A case study of university of Maiduguri. *Acad. Res. Int.*, 2(3): 334-343.
- Rowley, J., 2006. An analysis of the e-service literature: Towards a research agenda. *Internet Res.*, 16(3): 339-359.
- Rust, R.T. and P.K. Kannan, 2003. E-service: A new paradigm for business in the electronic environment. *Commun. ACM*, 46(6): 36-42.
- Sahin, Y.G., S. Balta and T. Ercan, 2010. The use of internet resources by university students during their course projects elicitation: A case study. *TOJET: Turkish Online J. Educ. Technol.*, 9(2): 234-244.
- Siraj, H.H., A. Salam, N.A. bt Hasan T.H. Jin, R.B. Roslan and M.N.B. Othman, 2015. Internet usage and academic performance: A study in a Malaysian public university. *Int. Med. J.*, 22(2): 83-86.
- Tariq, W., M. Mehboob, M. Asfandyar Khan and FaseeUllah, 2012. The impact of social media and social networks on education and students of Pakistan. *IJCSI Int. J. Comput. Sci. Issues*, 9(4): 407-411.
- Tiemo, P.A., E. Bribena and O. Nwosu, 2010. Internet usage and regulations in Niger delta university libraries. *Chinese Librarian. Int. Electron. J.*, 31: 1-16.