

Attitudes Towards the Use of the Internet*

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The main purpose of this study was to investigate the relationship between the attitude towards the use of the Internet and its cognitive, emotional and behavioral components. To achieve the objective of the study, the researcher used the scale of the attitude towards the Internet of a random sample of students ($n = 216$) at Teachers College at King Saud University. The most important result of the study is the attitude that students have towards the positive use of the Internet. The uses of the Internet involve educational and cultural purposes, leisure and entertainment as well as purchasing purposes. Besides, there is the existence of significant differences at the level (0.01) between high and low Internet users in the general attitude towards the Internet in favor of the high users of the Internet.

Keywords: attitude, the Internet, Teachers College

Introduction

People adopt different positive and negative attitudes towards things and topics that they are involved in, including the Internet as a communicative means with its visual and aural facets. The importance of studying attitudes lies in the fact that these attitudes are significant indications of people's behaviors in situations that involve these things or topics. According to this assumption, we can discuss the nature of people's attitudes to the Internet, the fields in which they use the Internet in addition to the rate and place of using the Internet in various aspects of their lives.

The rapid and consecutive changes have made young people feel culturally and socially strange about what comes from the means of communication and the moral values they have and the thing that results in different effects on their beliefs, values and behaviors (Trampiets, 1998).

There are a number of psychological, social and health problems due to the increasing use of the Internet which all result either from the coincidental interaction of people who use the Internet or from receiving this information from another source, not to mention the psychological and physical consequences resulting from spending long hours online which might lead to the new psychological disorder of the Internet addiction as expressed by Chak and Leung (2004). As a result, there have been a number of problems, such as introversion, weak, emotional and social skills and negligence of family duties. In addition, there are a number of researchers who referred to the long-time-spent-online as an essential factor which stands in the way of family contact. This might make the individual feel lonely, depressed, isolated, coy and disappointed while spending long hours online (Wallace, 1999; Chak & Leung, 2004). The use of the Internet has also led to the individual's reduced social circle, increased feeling of psychological alienation and increased rates of depression among Internet

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users (Kraut, Patterson, Lundmark, Kiesler, Mukhopadhyay, & Scherlis, 1998). These findings are similar to the negative psychological effects resulting from the use of the Internet represented in social isolation, and reduced school performance due to spending long hours online on a daily basis (Anderson, 2001).

Research Problem

The Internet, as a modern technology, has a lot of applications in various educational, economical, political and health fields which directly affect the nature of people's lives. However, it is not necessary that the influence of the Internet is always positive, as it might take an opposite direction. Hence, we should conduct a scientific study to answer a number of questions, such as "What is the nature of the attitude to the Internet?" and "How is this attitude utilized?".

Due to the remarkable development that the Saudi society has recently witnessed in technology, especially in computers and the Internet, and due to the absence of any study of technology used in Saudi Arabia concerning the attitude to the use of the Internet, we are in dire need of such a study. The study aims to answer the following questions:

- (1) What is the nature of the university students' attitudes towards the use of the Internet along with the fields of its use?
- (2) Are there statistically significant differences in the university students' attitudes towards the use of the Internet resulting from the rate and place of the use of the Internet?

Importance of the Research

The study enriched the literature of psychological research related to the attitude to the use of the Internet in relation to the Saudi society, because the previous psychological studies conducted on the attitudes towards the use of the Internet are relatively few and new compared to other fields of psychology.

The findings of the current study can be utilized in revealing the nature of the university students' attitudes to the use of the Internet according to a number of variables, such as the rate and the place of the Internet use. The above-mentioned point might help us explore the possibility of setting up instructional and precautionary programs for university students which guarantee their benefits from the applications of the Internet positively.

The Aim of Research

The aims of this research are as follows:

- (1) Revealing the nature of the attitudes of the Internet use on the part of the students at Teachers College and the fields in which the Internet is used;
- (2) Identifying the differences in the attitudes to the use of the Internet according to a number of variables, such as the rate of the Internet use, as well as the place of the Internet use on the part of the students at Teachers College.

Terminology of Research

The terminologies of research are as follows:

- (1) Attitude towards the use of the Internet. The researcher defined it as a number of perspectives and beliefs, positive or negative, and favorable or unfavorable feelings which pinpoint the usefulness or avoidance of the Internet. This is identified procedurally and wholly by measuring the attitudes to the Internet and the branch degrees of the quality components of the scale used in the present study;
- (2) The rate of the Internet use. This means the number of hours the user spends on the Internet;

(3) The place of the Internet use. This means the regular place where the Internet is used, is a cafe, home or somewhere else;

(4) Fields of the Internet use. This means the reason behind using the Internet; educational, recreational, cultural or purchasing purposes or any other purposes identified by the user.

Previous Studies

Researchers look at the Internet through its use in educational fields. Doggan, Hess, Mogan, Kim, and Wilson (1999) referred to university students' attitudes to the educational use of the Internet by using the survey Internet of education scale which was designed especially for this purpose and included 18 items and a sample of 395 university students. However, the sample was reduced to 188 (113 female students and 67 male students and eight did not indicate their genders) with an eye to controlling the social desirability impact. Some of the most remarkable results were the existence of positive attitudes to the educational use of the Internet. Besides, the preferential attitudes were associated with following good educational Websites, exchanging available information on the Internet with friends, high frequency of the Internet use and various reasons of using the Internet for educational purposes. There were no differences between male and female students in their attitudes to using the Internet.

The Internet has had many impacts on society compared to the traditional mass media. There was a longitudinal study which was carried out in Iceland by Klobas and Clyde (2000) between 1993 and 1998 to find out the attitudes of adults in Iceland to the use of the Internet. The study used a short questionnaire sent via email and distributed to Internet training courses for three years, according to the Theory of Planned Behavior. The findings of the study revealed a positive attitude to the use of the Internet whose uses became more widespread in the years 1994 to 1996.

In Malaysia, Hong, Ridzuan, and Kuek (2003) conducted a study with 88 university students who studied at five colleges at Sarawak University of Malaysia. They used a scale with three sub-dimensions which are skills, students' knowledge of the Internet, the educational environment conducive to using the Internet at the university and students' attitudes to the Internet in education. The study showed a positive attitude to using the Internet in education, but there were no differences in the attitudes to the Internet between both sexes or between those with high or low GPA's. However, it showed that the students of College of Engineering and College of Technological Sciences had positive attitudes compared to the students of College of Human Development. Besides, the study showed that the educational environment in the university has encouraged students to use the Internet. The study ascribes this to the role of the university and staff members in enhancing education through the Internet.

In a study on the negative impacts of the fields of the Internet use, Adebayo, Udegbe, and Sunmola (2006) detected the impact of using the Internet on the inclination towards sexual behavior for Nigerian youths on the basis of the comparison between males and females. The above study was carried out with 231 adult users, and it came to the conclusion that there was an increasing impact of the Internet on guiding sexual behavior. Besides, the study concluded that male students had an inclination towards sexual behaviors through using the Internet in this field compared to female students. The study offered mechanisms of healthy treatment to fight sexual behavior for the youth fraught with the risks of using the Internet.

In a comparative study based on kind and culture conducted by Li and Kirkup (2007) to compare male and female Chinese students with male and female British students in a sample of 220 male and female students

from China and 245 male and female students from Britain, with the use of the self-report survey scale of the attitude to the Internet, the findings of this study revealed the absence of differences in the rate of the Internet use between the sexes in both countries, although the British students used the Internet for educational purposes for a longer time than the Chinese students. But the Chinese students had self-confidence in their technical skills. The study also revealed a positive attitude to using the Internet in both cultures and differences between male and female students in both cultures while male students used the Internet to send emails, chat in chatting rooms, have fun and play games compared to female students. These qualitative differences decrease in the Chinese students compared to the British students.

A team of Carnegie Mellon University conducted a study on the Internet Paradox as a social technical factor which has a role in reducing social inclusion and the level of psychological health. The study took one full year (from 1995 to 1996). The study trained 73 families in using the Internet at home. After a while, the impact of social inclusion on members of that family and the level of their psychological health were measured. The findings of the study showed that the family suffered from an increasing level of social relationships as a result of an increase in the use of the Internet along with feelings of psychological loneliness and depression on the part of the members of the family (Kraut et al., 1998).

In a questionnaire-based study that dealt with the impact of using the Internet for university students on their social relationships and the levels of their academic achievement, Anderson (2001) carried out a study that included 1,300 male and female students at the eighth level in a number of universities. The study concluded that the rate of using the Internet for long hours a day has a negative impact on their academic achievement and makes them feel socially isolated. In the same context, a study made by Eric (2001) indicated that the continuous use of the Internet leads to an increased feeling of psychological loneliness.

There was also Johnson's study (Johnson, 2005) which examined the attitudes of the students registered on a psychology course using a learning system management on the Internet and their relationships with students' alienation and its impact on their academic achievement. The study included a sample of 53 male and female students. Besides, the study used the scale of students' alienation which comprised eight items (one of them is "I feel uncomfortable at school") designed by Johnson (2005) who used the rate of visiting the webpage on the learning system management (WebCT) of the psychology course and achievement tests. The findings revealed a negative connection between students' alienation and the number of times of the classes of psychology on the Internet. On the other hand, there was a positive connection between academic achievement and the visit rate of the webpage of the course on the Internet.

Research Method

Subjects and Sample of the Study

The subjects of the study consist of regular students who study at Teachers College in King Saud University in their first semester of the academic year 2009 to 2010. The questionnaire sample was selected randomly from the college students and comprised 140 students. The scores of this sample were limited to insure the validity of the tools of the current study.

The final sample was again chosen randomly from the college students representing different available theoretical majors, such as Quranic studies, Islamic studies, Arabic, English and scientific majors, such as computer, biology, mathematics and physics. The final sample included 216 students with ages ranging from 20 to 31.

Tools of the Study

Scale of the attitudes towards the Internet use: The theoretical literature on the attitudes to using the Internet represented in previous scales was reviewed especially Doggan's scale (Doggan et al., 1999) (ATEUI) and Hong's study (Hong et al., 2003) in which an open question was given to 40 students about the nature of their ideas and feelings about their use of the Internet.

The phrases that have been arrived at in the previous steps which are 43 ones have been refereed, and they fall into three major components: the individual's impressions of the Internet (knowledge), feelings about the Internet (emotional) and the rates of the Internet use, i.e., the use rate (behavior, behavior intention). The alternative responses have been formed, according to Likert scale, on a three-point scale (high, medium and low). It was then given to three referees to judge how far the phrases represented the sub-dimensions, and how clear the items and responses were. The referees then made some changes to some phrases, excluded some and merged some with others. So, the scale consisted of 27 phrases distributed to the three components of the scale.

Reliability

Hemispheric partitioning: the coefficient of the relatedness of the responses of the participants of the questionnaire sample (100 students) was calculated for all odd and even items, and it was (0.79) after being modified by Spearman Brown's equation. Constancy was also calculated by Alpha coefficient and was found to be 0.75 which is good constancy.

Validity

Referees' validity: Since the referees have greatly agreed that the items of the scale belong to the sub dimensions of this scale (their agreement amounts to 80%). Therefore, this is regarded as an additional index of the validity of the content of the tool.

Internal consistency: Since the consistency of the items of the tool is a preliminary index of validity on the basis that every valid scale is consistent and vice versa, we tried to ensure the consistency of the items of the tool through calculating the relation of every item with the degree of the dimension, because these sub dimensions measure the attitude to the Internet. We also calculated the relation of the sub-dimensions with the whole degree of the scale, and it was clear that all relations were significant at 0.01 which supports the consistency of these dimensions. Table 1 clarifies the results of that procedure.

Table 1

Matrix of Coefficients Between Sub-dimensions Comprising Components to Measure the Attitude to the Internet

No	Component of measuring attitude towards the Internet	1	2	3
1	Ideas about the Internet	-	-	-
2	Feelings towards the Internet	0.385**	-	-
3	Use of the Internet	0.296**	0.583**	-
4	General attitude towards the Internet	0.714**	0.834**	0.843**

Note. **Significant at 0.01.

Table 1 shows the significant correlation at level 0.01 among the components of measuring attitudes towards the Internet.

Validity of the Side Comparison

It is clear from Table 2 that there are statistically significant differences at 0.01 between means of groups of maximum quartiles and means of groups of minimum quartiles in the whole degree of measuring the attitudes towards the Internet; the thing that refers to the differential validity of the scale.

Table 2

Differences Between Means of Side Groups (Maximum Quartiles and Minimum Quartiles) in the Whole Degree of the General Attitude Towards the Internet

Variable	Group of minimum quartile <i>n</i> = 53		Group of maximum quartile <i>n</i> = 54		Value and significance of <i>T</i>
	M	A	M	A	
General attitude to the Internet	58.55	3.91	81.53	4.40	28.44**

Note. ** Significant at 0.01.

Results and Discussion

The results revealed by the various statistical analyses of the test of the questions of the study. These are as follows:

First: What is the nature of the attitudes toward the use of the Internet among university students and what are the fields of its use?

The frequency of all dependent items of responses is shown in Table 3.

We have to examine the results of the sub items of each of the three components of the attitude to the Internet included in Table 3 to identify the nature of the attitudes of the study sample to the Internet. These results are represented in the following components:

Concerning the individual's impressions towards the Internet, a large number of the subjects of the study samples (85.6%) agreed that the Internet is a rapid means of getting information, a good source of information (68.1%) and a good means of continuous self-learning (69.4%). Therefore, it can be extended that the use of the Internet as a useful educational means (73.1%), so 66.2% of the subjects of the study referred to the fact that the Internet increases job opportunities, and a large number of subjects (68.1%) indicated that the Internet is a good means of getting information about course descriptions. This complies with 53.7% of the subjects who say that the Internet provides a greater extent of interaction with the teacher of the course.

Regarding the feelings towards the Internet, a large number of the subjects of the study samples (62.2%) agreed that they preferred to use the Internet to improve their communicative and debate abilities and skills. That is why we find that they feel happy and comfortable when they use the Internet (60.2%). However, 50.5% of the study samples felt a little intimidated when they use the Internet. Still 49.1% of the study samples felt self-confident when they use the Internet. This might explain why they feel relatively comfortable (45.4%) when they turn in their term paper to the teacher via email. This also means that they have positive feelings towards the Internet, which complies logically with their informational positive attitudes towards the use of the Internet.

As for the use of the Internet, a high percentage of the study sample (76.9%) indicated that they support the use of the Internet as the latest invention in the information era, and that they lose their feelings of time when they are online (56.5%). This supports the claim that a high percentage of them agrees to subscribe the Internet service at home (73.6%) when they read newspapers online (55.1%).

From the previous frequent percentages, we find that the behavior of the study samples towards the

Internet is consistent with their ideas and feelings which are generally positive. On the whole, the results indicated a generally positive attitude on the part of the subjects of the study to the use of the Internet on all levels: cognitive, emotional and behavioral.

Table 3

Frequency Rate and Percentages of Common Practice of Sub Items of the Scale of the Attitude to the Internet

No.	Items	High		Medium		Low	
		K	%	K	%	K	%

First component: Ideas about the Internet							
1	I think the Internet is harmful for the youth morals.	83	83.4	89	41.2	44	20.4
2	The Internet is a fast means of getting information.	185	85.6	7	3.2	22	10.2
3	Training to use the Internet increases job opportunities.	134	66.2	36	16.7	37	17.1
4	I think the Internet is a western trend that does not suit our society.	88	40.7	45	20.8	85	37.0
5	The Internet is a useful means of continuous self-learning.	150	69.4	49	22.7	15	9.6
6	I think the Internet has more disadvantages than advantages.	82	38.0	71	32.9	62	28.7
7	I think the Internet is not helpful when I do my assignments.	76	31.0	44	20.4	104	48.1
8	I use the Internet because I believe it is a good source of information.	147	68.1	43	19.9	109	50.5
9	The Internet provides me with greater interaction with my teacher.	116	53.7	51	23.6	49	22.7
10	The Internet is a good means of getting information about course descriptions.	131	60.6	48	22.2	37	17.1
11	The extension of using the Internet is a good educational means.	158	73.1	30	13.9	25	11.6

Second component: Feelings towards the Internet							
12	I hate to use the Internet because I am familiar with traditional methods.	80	37.0	51	23.6	84	38.9
13	I like to use the Internet to form new relationships with other people.	83	38.4	65	30.1	66	30.6
14	I am afraid of using the Internet because it is a waste of time and effort.	91	42.1	49	22.7	75	34.7
15	I feel comfortable when I turn in my term paper to my teacher via email.	98	45.4	53	24.5	64	29.6
16	I feel intimidated when I use the Internet.	64	29.6	43	19.9	106	50.5
17	I feel self-confident when I use the Internet.	106	49.1	65	30.1	45	20.8
18	I feel happy and comfortable when I use the Internet.	130	60.2	34	15.7	52	24.1
19	I like to use the Internet to develop my communication and debate abilities.	134	62.2	43	19.9	39	18.1

Third component: The use of the Internet							
20	I support the use of the Internet as a new scientific invention in the information era.	166	76.9	25	11.6	24	11.1
21	I seize every opportunity to use the Internet.	63	29.2	65	30.1	87	40.3
22	I lose the feeling of time when I am online.	122	56.5	39	18.1	55	25.5
23	I prefer to have my test online.	94	43.5	39	18.1	83	38.4
24	I would like to subscribe to the Internet at home.	159	73.6	31	14.4	22	10.2
25	I use the Internet on purpose to facilitate my life.	95	44.0	42	19.4	76	35.2
26	I avoid using the Internet as much as possible.	75	34.7	52	24.1	89	41.2
27	I use the Internet to read newspapers online.	119	55.1	44	20.4	53	24.5

Table 4

Frequency Rates and Percentages of Fields of Internet Use

No	Fields	Frequency	Percentage (%)
1	Educational	79	36.6
2	Recreational	76	35.2
3	Cultural	37	17.1
4	Purchasing	6	2.8
5	Others (unspecified)	18	8.3

Concerning the fields of the Internet use, Table 4 includes frequency rates and percentages of the fields of the Internet use on the part of the subjects of the study samples.

When we examine Table 4 to find out about the fields of the Internet use, we notice that 36.6% of the subjects of the study samples use the Internet for educational purposes, 35.2% for recreation, 17.1% for cultural

purposes and 8.3% for unspecified purposes. However, those who use it for purchasing purposes form only 2.8%. The researcher ascribes the use of the Internet for educational purposes on the part of the subjects of the study to the educational system of Teachers College which forces the students to always go back to the webpage of the college in order to register and complete the procedures related to their schedules.

Second: Are there differences in the university students' attitudes to using the Internet that can be ascribed to variables, such as the rate of using the Internet and the place of using the Internet?

Table 5

Differences Between the Attitude Towards the Internet With Its Subcomponents According to the Place of Internet Use

Variables	Place of Internet use				Value <i>T</i>
	Home (<i>N</i> = 125)		Cafe (<i>N</i> = 91)		
Components of attitude to the Internet	M	A	M	A	
Individual's ideas about the Internet	25.88	4.01	27.93	3.51	-3.82**
Individual's feelings towards the Internet	23.60	3.73	20.12	3.37	7.05**
Internet use	21.42	4.396	19.94	4.00	2.53**
General attitude to the Internet	70.92	9.51	67.96	7.98	2.40**

Note. ** Significant at 0.01.

The results shown in Table 5 refer to significant differences in the general attitude towards the Internet and the individual's ideas about the Internet use, where it was obvious that the participants favor the use at home more than cafe. Also, it (cognitive components) was obvious that the participants prefer public places.

This is due to the fact that the Internet cafes provide many services, such as connection speed, meeting friends as well as offering drinks and meals. These services enhance the preferential and informational attitudes to using the Internet at Internet cafes in Riyadh, although this does not conform to the users' real behaviors and feelings.

Table 6

Differences Between the Attitudes Towards the Internet With Its Subcomponents According to the Rate of Internet Use

Variable	Rate of Internet use				Value <i>T</i>
	High (<i>N</i> = 165)		Low (<i>N</i> = 51)		
Components of attitudes to the Internet	M	A	M	A	
Individual's ideas about the Internet	27.01	4.00	25.88	3.58	1.77
Individual's feelings towards the Internet	22.52	4.07	20.88	3.36	2.61**
Internet use	21.69	3.93	17.90	4.12	5.95**
General attitudes to the Internet	8.18	64.66	8.69	71.22	4.77**

Note. ** Significant at 0.01.

The results shown in Table 6 indicate significant differences at level 0.01 between high and low rates of the Internet use in the general attitudes to the Internet in favor of high rates. However, at the level of subcomponents, there are significant differences at level 0.01 between high and low rates of Internet use in favor of high rates of the Internet use in relation to the feelings towards the Internet and the behavioral aspect. On the other hand, the results showed no significant differences in the informational ideas about the Internet between high and low rate users of the Internet. This indicated that this behavior is mentally unplanned and is

determined by psychological, social and educational circumstances. In addition, such a behavior is often displayed in free times and in doing school work. So, it might refer to the fact that the behavior of using the Internet has not become a habit yet, and this can be due to the high cost of the use of the Internet or the lack of computer labs at the library of the college. There are other factors, such as the users' weakness in English and their low awareness of academic and professional opportunities of development which the Internet provides. In general, the above-mentioned results form a logical perspective that the higher the rate of using the Internet, the greater the opportunities of the Internet users develop more preferable attitudes to the use of the Internet than their peers who use the Internet less than them.

Future Recommendations

Informational and Professional Development Through the Use of the Internet

The use of communication technology is suggestive of the progress of civilized societies. So, some researchers predict that the problems of the information society are represented in the future gaps resulting from the inability of the individual to respond easily to the rapid changes in all fields.

Establishing Internet Ethics

There must be some criteria and ethical rules for the use of the Internet to govern and organize the way the Internet is used. Such rules and ethics should also increase self-control to avoid the misuse of the Internet.

The Proposed Research

The effect of social desirability on disclosing the real motives of using the Internet as well as conservatism and liberalism in the use of the Internet can be detected: Female students' attitudes towards the use of the Internet.

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