Adaptation of Media and Technology Usage Scale and Attitude Scale to Arabic

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Abstract

The aim of the study was to adapt the media and technology usage scale and attitude scale to Arabic. The methodology of the current study was a quantitative method, as the questionnaire was used from 1100 university students. Then, exploratory factor analysis was performed on the media and technology usage scale. As a result of factor analysis, nine factors emerged. The nine factors are named as follows on Facebook Check, general social media use, primary phone use, video games, media sharing, online friendships, email usage, Facebook friendships, and smartphone use. The attitude scale has three factors. The three factors are named respectively as following positive pttitude and negative attitude and Preference for Task Switching. The Cronbach alpha coefficient of the media and technology use subscale of the scale adapted to Arabic was found to be 0.757. This coefficient shows that the media and technology usage subscale has a acceptable degree of internal consistency. In addition, the value of Cronbach alpha coefficient of the attitude subscale was found be 0.699. This indicates that the attitude subscale has a acceptable degree of the internal consistency. As a result, the adapted Arabic form of media and technology usage and attitude scale is a scale that can reliably measure the media and technology usage and attitudes of individuals in Arabic-speaking places around the world.

Keywords: Technology, Media, Attitude, Scale.

Medya ve Teknoloji Kullanımı Ölçeği ve Tutum Ölçeğinin Arapçaya Uyarlanması

Öz

Bu çalışmadaki amaç, medya ve teknoloji kullanım ve tutum ölçeğini Arapçaya uyarlamaktır. Çalışmada, nicel bir metodoloji olarak ölçekler kullanılmıştır. Ölçekler vasıtasıyla Libya'daki 1100 üniversite öğrencisinden veri toplanmıştır. Daha sonra, medya ve teknoloji kullanım ölçeğine açımlayıcı faktör analizi yapılmıştır. Faktör analizi sonucunda dokuz faktör ortaya çıkmıştır. Bu dokuz faktör, Facebook kontrolü, genel sosyal medya kullanımı, temel telefon kullanımı, video oyunları, medya paylaşımı, çevrimiçi arkadaşlıklar, e-posta kullanımı, Facebook arkadaşlıkları ve akıllı telefon kullanımıdır. Tutum ölçeğinin üç faktörü vardır. Bu faktörler şunlardır: olumlu tutum, olumsuz tutum ve görev değiştirme tercihi. Arapçaya uyarlanan ölçeğin medya ve teknoloji kullanımı alt boyutunun Cronbach alfa katsayısı 0.757 olarak bulunmuştur. Bu katsayı, medya ve teknoloji kullanım alt boyutunun kabuledilebilir derecede iç tutarlılığa sahip olduğunu göstermektedir. Ayrıca tutum alt ölçeğinin Cronbach alfa katsayısı 0,699 olarak bulunmuştur. Bu değer, tutum alt boyutunun iç tutarlılık derecesinin kabuledilebilir olduğunu göstermektedir. Sonuç olarak medya ve teknoloji kullanım ve tutum ölçeğinin uyarlanmış Arapça formu, dünyada Arapça konuşulan yerlerdeki bireylerin medya ve teknoloji kullanım ve tutumlarını güvenilir bir şekilde ölçebilen bir ölçektir.

Anahtar Kelimeler: Teknoloji, Medya, Tutum, Ölçek.

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1. Introduction

Insufficient number of studies has so far addressed the impact of adapting and using information technology (IT) in the developing countries. Considering the social and cultural factors, for example, level of education, gender and age can affect the information technology adoption in the developing countries. Social networking media is considered as one of the key activities, which are performed on severalwebsites such as MySpace, Facebook, Xanga, Bebo, and Friendster; however, there are some worriesforparents and educators about the growing usageand influence of social networking on pedagogy specifically among students and teachers, who are engaged in higher education(Elkaseh, Wong, and Fung, 2016). The transnational industrial globalization is growing that makes it essential to understand the mentioned factors, which result in continuous IT adoption andusage in several organizations, which are located in the mentioned regions. In particular, we should understand the specific socio-cultural factors, which usage as well as adoption. This type of knowledge plays a significant role in assisting the increasing organizations located in certain regions, which require IT usage. The socio-cultural factors include social norms, gender, education, and age. Such factors have a definitiveeffect on transferring and usinginformation technology in different organizations(Baker, Al-Gahtani, and Hubona, 2007).

This study directed to Arabic countries and the people's attitudes towards media and technology. This study specifically targets the Libyan community, and its attitude towards using latest technologies, including computers, internet, smartphones and social media. Many theoretical backgrounds show different factors, which encourage IT adoptionand use in business and other organizations, but so far, this couldn't take place in the developing countries. Since the required frameworks are absent, it shows that some cultures limit the developmentsin this field (Baker et al., 2007). The Information Technology (IT) researchers, who are keen to explore the relation between the culture and IT, have analyzed the national and organizational cultural impact of different IT problems. On national level, several studies have analyzed the conventional Western management theories, and their relevance to the cultures of the developing countries, and the state cultures on information and communication technology(ICT) and its usage (ICTs) (Leidner and Kayworth, 2006).

In a study conducted in Saudi Arabia (Leidner and Kayworth, 2006) shows that according to respondents, complexity remained the most significant factor that influences the process of e-service adoption. Moreover, the internet quality and its other benefits have a substantial effect on the e-service usage in Saudi Arabia. The next factor is privacy, which is followed by compatibility. This indicates that the respondents of the study, who believed that using internet is easy or the internet is user-friendly, they responded: "I do not face difficulties in accessing the internet from home or work."Besides, they do not face problems in English communication while utilizing the internet services. Generally, such type of peopleislikely to choose the e-services.

Another study was simultaneously conducted by Baker et al. (2007) in three countries, with different norms and cultures. The authors have demonstrated that among other factors, gender role is a substantial social factor that affectsthe people's behaviors and perceptions about information technology. The findings demonstrate that gender influences the IT adoption because it provides basis to examine if gender still affects independent variables in the current IT adoption/usage models.

Another study was conducted in the United Arab Emirates (Al-Jenaibi, 2011) that aimed at creating a foundation to understand social media use in the UAE, which helps analyzing the issue of regional social change. Since there is general lack of previous studies in the UAE, the mentioned study has actually laid the foundation for examining complex social media dynamics in the United Arab Emirates, which opened doors for the research.The study conducted by Al-Jenaibi (2011) was an effort to find out the answer to the following questions: What are the challenges and key problems for the UAE residents to accept the social media? What types of social media do the UAE residents prefer and why? What is the trust level of the UAE residents in social media? What are the main advantages of using social media according to the perception of the people living in the UAE? The current study defines the social media as "the media that facilitates social interaction, applyingscalable and accessible communication processes, for instance, web-based mobile technology that transforms communication into a kind of interactive dialogue."

The mentioned study provided substantial insight into the social media forms, which are popular in the UAE, which is also true for most of the other countries located in North Africa and the Middle East. The research showed that some popular social media sites are specifically popular such as Facebook, video-sharing sites such as YouTube, and blogging platforms like Twitter. Findings show that the people of the UAE use a variety of social media; so, they have awareness about the potential social media sites, and its ethical/practical limitations. The mentioned social media serves an essential information source, which is nowadays a primary news, entertainment, business, campaigning, and opinion sharing source but according to the opinions of the people living in the UAE, social media sites trigger political changes,urge the government to assure transparency, and helpdeveloping business(Al-Jenaibi, 2011).

Another study was conducted in the Middle East and North Africa (MENA) region (Skalli, 2006). It was about the women'sviewpoint oninformation and communication technologies (ICT). According to the author, it is not possible to bring about socio-political changes in MENA without active participation of women. Several studies from other countries also show that women actuallyaffect, determine, and re-determine through their participation in several societies.

The aim of this study is to adapt the media and technology usage and attitude scale to Arabic. It is also to examine the validity and reliability of the scale adapted to Arabic.

2. Assessing Social Media and Technology Usage

After the emergence of social media such as Facebook, researchers have done many efforts to measure thesocial media usage. For assessing Facebook use, the Facebook Intensity Scale was introduced (Rosen, Whaling, Carrier, Cheever, and Rokkum, 2013). It has six attitudinal statements, which are mainly open-ended questions that evaluate the daily time spent on Facebook and the process of making new friends using a ten-point numerical scale. Moreover, the mentioned attitudinal questions were mostly closed-ended, which needed responses on the Likert scale. This scale has already been used in several studies form easuring activities on Facebook (Rosen et al., 2013). Furthermore, Rosen et al. (2013) assessed people's Daily computer usage and technology-based media usage, and their attitudes towards both of them. According to Rosen et al. (2013), who introduced diverse tools, conducted researches on the people's behaviors towards media and discussed several latest technologies. They mentioned 66 media usage items, and 18 items to measure the people's attitudes towards technology and media. They also used factor analyses for generating 11 subscales such as smartphone use, online friendships, social media usage, internet searches, e-mails, text messaging, media sharing, video games, TV viewership and phone calls. The factor analysis consists of attitude-based subscales: attitudes toward task-switching, negative attitudes, positive attitudes, and technological dependence of anxiety. The mentioned sub-scales show good relations and reliabilities pertaining to the subscales measured in the regular media use and the growing addiction to internet. Based on good validity and reliability, the mentioned study shows that the attitudes scale, and the scale of technology andmedia use are usable to assess both technology and media.

3. Material and Method

It was found in the business methods literature (Saunders, Lewis, & Thornhill, 2007) that there are two research paradigms that govern the research domain: They are positivism paradigm and interpretiveism. In the current study, the positivist paradigm would be implemented and utilized, because it is more appropriate for using or applying the scales of technology/media usage and attitudes (Crook and Garratt, 2005; Rosen et al., 2013). More specification of positive is to enhance the scope of the current study in terms of obtaining practical and statistical knowledge about the use of technology and the people's attitudes towards them in Libya.

3.1. Research design

According to the positivist paradigm, the research design of the current study will include the following sub-sections:

3.1.1. Setting

The research setting or context is the Libyan universities, in particular, the higher education institutions. All the universities were intentionally chosen to represent the Libyan higher education institutions. Hence, this setting helped to identify the population and sample for the current study.

3.1.2. Population and Sample

The studied population includes all the students who are currently studying at the Libyan universities; therefore, the study sample would include the students of some Libyan universities.

3.1.3. Sample Selection

A simple sampling procedure (David and Sutton, 2011) was adopted for collecting data using questionnaires from students who are currently studying at the Libyan universities. Thus,the study population is 11000 students and about 1100 students were selected, about 10% of the sample size according to the reliability level (Saunders et al., 2007).

3.1.4. Participants

Participants of research consisted of 1100 university students in 13 different Libyan universities. Overall, 1100 students participated including 48.9% male participants (n=538), while female participants were 51.1% (n=562). 19.6 % of participants were enrolled in the fourth semester (n=216); 15.5% of participants were in the third semester (n=171), and 64.6% of participants were distributed among other semesters from first to tenth semester.

3.1.5. Data collection and Analysis

Details about the current study's questionnaire were explained to the students who are currently studying at the Libyan universities. A verbal agreement (Orfanidou, Woll and Morgan, 2014; Saunders et al., 2007) was made, which can be called as third-party agreement, with the university students. Each questionnaire of the current study had a cover letter that included a brief introduction of the goals of the study, in addition to commitment to confidentiality. Thus, the researcher was responsible for providing instructions to each student on how to answer each question of the study's questionnaire (Saunders et al., 2007). The data collection period was three months.

We used SPSS (Statistical Package for Social Sciences) to statistically analyze the data. Percentages and frequencies were applied for analyzing the socio-demographic data obtained from the questionnaire (Field, 2009). Exploratory factor analysis was used to measure hidden/latent variables, which are not possible to be directly measured. We applied Bartlett's Test and KMO for media to show adequacy of the sample for conducting factor analysis. We calculated correlations to understand the relations amongthe subscales of media use and attitude.

3.1.6. The Original Scale

The quantitative data were about the technology and media use and attitudes. It includes duration of internet usage, daily internet usage, weekly internet usage, social media usage duration, email checking duration, and duration of smartphone usage (Rosen et al., 2013). We have taken the variables of technology and media usage and attitudes from a study by Rosen et al. (2013). Moreover, Rosen et al. (2013) used the media usage subscale that includes Searching Internet, Facebook Check, General Social Media Usage, Basic phone usage, Video Gaming, Media Sharing, Online Friendships, Email Usage, Facebook Friendships, Smartphone Usage (Rosen et al., 2013).

4. Results and Discussion

This section provides details about the data analysis of the scale that assesses technology, media, and attitudes.

4.1. Factor Analysis of Technology and Media Subscale

4.1.1. KMO and Bartlett's Tests for the Technology and Media Subscale

A principal components factor analysis was conducted on the 44 items. An initial analysis was run to obtain eigenvalues for each factor in the data. Due to cross-loading or low factor loading 21 items were deleted. The KMO value is 0.766 for the current data, which is good (Field, 2009); so, we are confident that we have chosen the right sample size for conducting exploratory factor analysis. Furthermore, the Bartlett's sphericity value = 6737.351 (p<0.001), which indicates that the exploratory factor analysis might be useful with the current data set. That is, Bartlett'ssphericity test χ^2 (253) = 6737.351, p< 0.001, that indicates sufficiently large correlations between questions for conducting the principal component analysis (PCA).

4.1.2. Exploratory Factor Analysis of the Technology and Media Subscale

Table 1 shows Rotated Component Matrix using Varimax with Kaiser Normalization method. The eigenvalues for every component/factor characterize the variance. It is obvious that, for instance, the variance percentage expressed through the first factor is 18.969 % of the total variance. Specifically, the initial nine factors/components show substantially large variance (particularly the Factor 1 because its variance is 18.969 % of the total variance).

The rule of thumb that is usually used to extract all factors is that the eigenvalues should be greater than or equal to 1, which leaves the researcher with nine factors, as the eigenvalues of the nine factors are 4.363, 2.318, 1.951, 1.582, 1.444, 1.215, 1.099, 1.045, and 0.962. There are eight factors, which satisfy Eigenvalues criterion, the ninth factor (Smartphone Usage) falls short of Eigenvalues criterion. The Eigenvalue of Smartphone Usagefactor is (.962). It is represented by two strong items that have factor loading of (Q16 = .840 and Q15 = .748) and the correlation between these two items is .328, p <.001. All nine factors in combination explain 69.477% of the variance. Factor one is Facebook Check (Q32, Q33 and Q34), factor two is General Social Media Usage (Q35, Q36 and Q37), factor three is Basic Phone Usage (Q5, Q6 and Q7), factor four is Video Gaming (Q29, Q30 and Q31), factor five is Media Sharing (Q22, Q23 and Q24), factor six isOnline Friendships (Q43 and Q44), factor seven is Email Usage (Q3 and Q4), factor eight isFacebook Friendships (Q41 and Q42) and factor nine is Smartphone Usage (Q15 and Q16). Table 1 shows each factor explained variance and factorloadings after rotation. Results indicate that the scale is valid.

Table 1 shows rotated component matrix using varimax with Kaiser Normalization method. This matrix contains the factor loadings for each item or question for a specific component or factor. The exploratory factor analysis was conducted applying "Principal Component Analysis" with Varimax Kaiser Normalization, in which, factor loadings should be greater than 0.68. It was used for identifying the factors loadings (Han, 2009). In addition, the cross-factor loading value should be above 0.50 (Han, 2009). The results in Table 1 showed that we have nine factors. The first factor had three questions, which are Q33, Q32, Q34, as their factor loadings are .847, .846 and .685 respectively. The second factor is loaded by three questions, which are Q37, Q36 and Q35, and their factor loadings were .803, .784 and .717 respectively. The third factor is loaded by three questions, which are Q6, Q7 and Q5, as their factor loadings were .837, .804 and .780 respectively. The fourth factor has three questions, which are Q29, Q30 and Q31, as their factor loadings were .783, .773 and .697 respectively. There were three questions pertaining to the fifth factor: Q23, Q22 and Q24, and the ranges of their factor loadings were .755, .744 and .729 respectively. The next factor is sixth in the list, which was loaded by two questions, which are Q43 and Q44. Their factor loadings range from .880 and .856, respectively. The seventh factor is loaded by two questions, which are Q3 and Q4, as their factor loadings ranged from .854 and .852 respectively. The eighth factor is loaded by two questions, which are Q42 and Q41. Their factor loading ranged from .865 and .805 respectively. The final factor or the ninth factor is loaded by two questions, which are Q16 and Q15, as their factor loadings ranged from .840 and .748 respectively. The number of items in the original scale is 44. However, the number of items in the adapted scale is 23. Finally, it can be noticed that the twenty one question was dropped from the analysis, because its factor-loadings are very low or even less than the criterion of factor loading, which is 0.40 (Field, 2009; Han, 2009).

Table 1. Varimax-Rotated Factor Loadings of the twenty-three Usage Items and Explained Variance of the nine Factors

	Rotated Component Matrix[a]								
	Component								
	1	2	3	4	5	6	7	8	9
	Facebook Check	General Social Media Usage	Basic phone usage	Video Gaming	Media Sharing	Online Friendships	Email Usage	Facebook Friendships	Smartphone Usage
% of the Variance	18.969	10.076	8.483	6.879	6.278	5.284	4.780	4.544	4.185
Eigenvalues	4.363	2.318	1.951	1.582	1.444	1.215	1.099	1.045	0.962
Items									
Q33	.847								
Q32	.846								
Q34	.685								
Q37		.803							
Q36		.784							
Q35		.717							
Q6			.837						
Q7			.804						
Q5			.780						
Q29				.783					
Q30				.773					
Q31				.697					
Q23					.755				
Q22					.744				
Q24					.729				
Q43						.880			
Q44						.856			
Q3							.854		
Q4							.852		
Q42								.865	
Q41								.805	
Q16									.840
Q15									.748

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.[a]

4.1.3. Reliability Analysis of the Subscale of Technology and Media Usage

Table 2 shows Reliability Analysis for Media and Technology Usage Scale. The scale had a satisfactory reliability, Cronbach's α = .757. Sub-scales reliability ranged from .494 to .819. Although the Smartphone Usage sub-scale Cronbach's α = .494 its Inter-Item Correlations' mean is .328 which qualifies the sub- scale reliability in measurement of the indicated sub-variable. Cronbach alpha values are quite sensitive to the number of items in the scale if the scale has fewer items than ten (Pallant, 2013). It is recommended to report the mean inter-item correlation for the items when low values of Cronbach alpha are obtained. Briggs and Cheek (1986) recommend an optimal range for the inter-item correlation of .2 to .4. Since the Inter-Item Correlations' mean is .328 which falls in the recommended rage the Smartphone Usage sub-scale is reliable to be used in measurement of the intended sub-variable. Based on the above results the above mentioned scale and sub-scales can be used in measurement of the indicated variable and sub-variables.

Table 2. Reliability Statistics of Media and Technology Usage Subscale

Scales and sub-scales	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	Inter-Item Correlations' mean
Media and Technology Usage Scale	.757	.752	23	.116
Facebook Check sub-scale	.819	.820	3	.604
General Social Media Usage sub-scale	.789	.789	3	.554
Basic phone usage sub-scale	.749	.749	3	.498
Video Gaming sub-scale	.716	.716	3	.457
Media Sharing sub-scale	.607	.607	3	.340
Online Friendships sub-scale	.724	.724	2	.568
Email Usage sub-scale	.637	.639	2	.469
Facebook Friendships sub-scale	.619	.619	2	.449
Smartphone Usage sub-scale	.494	.494	2	.328

4.2. Factor Analysis of the Attitude Subscale

4.2.1. Applying Bartlett's Test and KMO to assess the Attitude Subscale

We found that the KMO value. It was 0.759, which is in fact a large value; consequently, we can consider our sample size as adequate for conducting the exploratory factor analysis. Furthermore, the value of Bartlett's test of sphericity χ^2 (36) = 1263.252 (p≤0.001), which indicates that the exploratory factor analysis might be useful with the current data set. The obtained value of the sphericity test shows that the obtained correlations are large enough to conduct a principal component analysis (PCA).

4.2.2. Exploratory Factor Analysis of the Attitude Subscale

The current research utilizes suppressed small coefficients using an absolute value above 0.40, as recommended by Field (2009). This means that only loadings above 0.40 will be displayed; therefore, it is obvious in Table 3 that just three factors have been extracted. This is because of deciding the load factor, any variable must have a factor equal to 0.50 or more. Consequently, we can conclude that the first factor have significantly higher differences compared to other factors (29.442% much higher than 13.913 and 10.629%).

Table 3 shows Rotated Component Matrix using Varimax with Kaiser Normalization method. There are two factors, which satisfy Eigenvalues criterion, the third factor (Preference for Task Switching) falls short of Eigenvalues criterion. The Eigenvalue of Preference for Task Switching factor is (.957). It is represented by two strong items that have factor loading of (QQ13 = .744 and QQ14 = .624) and the correlation between these two items is .306, p <.001. All three factors in combination explain 53.985% of the variance. Factor one is Positive Attitudes (QQ1, QQ2, QQ3 and QQ8), factor two is Negative Attitudes (QQ10, QQ11 and QQ12), and factor three is Preference for Task Switching (QQ13 and QQ14. Table 3 shows each factor explained variance and factor loadings after rotation. Results indicate that the scale is valid.

The results in Table 3 show that there are three factors. The first factor is loaded by four questions, which are QQ1, QQ8, QQ2 and QQ3, as their factor loadings ranged from .752, .679, .655 and .482 respectively. The second factor is loaded by three questions, which are QQ10, QQ11 and QQ12, as their factor loadings ranged from .744, .662 and .660 respectively. The third factor is loaded by two questions, which are QQ13 and QQ14, as their factor loadings ranged from .744 and .624 respectively. The number of items in the original scale is sixteen. However, the number of items in the adapted scale is nine. Finally, it can be noticed that the seven question was dropped from the analysis, because its factor-loadings are very low or even less than the criterion of factor loading, which is 0.40 (Field, 2009; Han, 2009).

Table 3. Varimax-Rotated Factor Loadings of the nine Items Attitude and Explained Variance of the three Factors

	Component		
	1	**2**	**3**
	Positive Attitudes	Negative Attitudes	Preference for Task Switching
% of the Variance	29.442	13.913	10.629
Eigenvalues	2.650	1.252	0.957
Items			
QQ1	.752		
QQ8	.679		
QQ2	.655		
QQ3	.482		
QQ10		.744	
QQ11		.662	
QQ12		.660	
QQ13			.744
QQ14			.624

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.[a]

4.2.3. Reliability Analysis of the Attitude Subscale

Table 4 shows Reliability Analysis for Attitude Subscale. The scale had a satisfactory reliability, Cronbach's α = .699. Sub-scales reliability ranged from .468 to .607. Although all sub-scale Cronbach's α values are below the desired value of .7 their Inter-Item Correlations' mean ranges between .278 and .306 which qualifies the sub- scales reliability in measurement of the indicated sub-variable. Cronbach alpha values are quite sensitive to the number of items in the scale if the scale has fewer items than ten (Pallant, 2013). It is recommended to report the mean inter-item correlation for the items when low values of Cronbach alpha are obtained. Briggs and Cheek (1986) recommend an optimal range for the inter-item correlation of .2 to .4. Since the Inter-Item Correlations' means fall within the recommended rage the sub-scales are reliable to be used in measurement of the intended sub-variable. Based on the above results the above-mentioned scale and sub-scales can be used in measurement of the indicated variable and sub-variables.

Table 4. Reliability Statistics of Attitude Subscale

Scales and sub-scales	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	Inter-Item Correlations' mean
Attitudes Scale	.699	.699	9	.205
Positive Attitudes sub-scale	.607	.607	4	.278
Negative Attitudes sub-scale	.548	.548	3	.288
Preference for Task Switching sub-scale	.468	.468	2	.306

4.3. Correlation Analysis of Technology and Media Usage and Attitude Subscales

Pearson correlation was used to test the relationships between variables of the study (nine variables of Media and Technology Usage and three variables of Attitudes towards Media and Technology Usage). The aim of using Pearson correlation is to answer the following three research questions:

- Is there an association between the nine types of Media and Technology Usages?
- Is there an association between the three types of Attitudes towards Media and Technology Usages?
- Is there an association between Media and Technology Usages and Attitudes towards Media and Technology Usages?

Table 5 shows Pearson Correlations between variables of the study (nine variables of Media and Technology Usage and three variables of Attitudes towards Media and Technology Usage). There was a statistically strong positive correlation between Facebook Check and General Social Media Usage, r = .577, p < .01. There was a statistically moderate positive correlation between Facebook Check and Video Gaming, r = .455, p < .01, and between General Social Media Usage and Video Gaming, r = .454, p < .01. Other observed correlations between variables of Media and Technology Usage are of weak positive associations, r < .300, p < .05. Results indicate associations between most of the nine types of Media and Technology Usages.

There was a statistically moderate positive correlation between Positive Attitudes and Negative Attitudes, r = .311, p < .01, and between Positive Attitudes and Preference for Task Switching, r = .319, p < .01. A positive significant moderate correlation between Negative Attitudes and Preference for Task Switching is observed, r = .376, p < .01. Results indicate associations between the three types of Attitudes towards Media and Technology Usages. Finally, there were no association between Media and Technology Usages and Attitudes towards Media and Technology Usages at the significance level of p = .05.

Table 5. Correlations between variables of the study (nine variables of Media and Technology Usage and three variables of Attitudes towards Media and Technology Usage).

	1	2	3	4	5	6	7	8	9	10	11	12
1-Facebook Check	1	.577**	.085**	.455**	.121**	.036	.020	.056	.102**	-.012-	.001	-.004-
2-General Social Media Usage		1	.078*	.454**	.077*	.023	.037	.025	.099**	.029	.003	.026
3-Basic phone usage			1	.081**	.036	.035	.051	.098**	.273**	.045	.012	.019
4-Video Gaming				1	.128**	.017	-.001-	.074*	.072*	-.003-	-.027-	-.034-
5-Media Sharing					1	.143**	.039	.054	.127**	.048	.026	.038
6-Online Friendships						1	.087**	.291**	.058	.002	.007	-.039-
7-Email Usage							1	.068*	.076*	.045	.006	.000
8-Facebook Friendships								1	.038	.034	.046	.028
9-Smartphone Usage									1	.049	.030	.003
10-Positive Attitudes										1	.311**	.319**
11-Negative Attitudes											1	.376**
12-Preference for Task Switching												1

** p <.01 and * p <.05

4.4. Discussion the Technology and Media Usage Subscale

This study has demonstrated nine factors of the media scale. The first factor (Facebook Check) has factor loadings of three questions, which are Q32, Q33, and Q34. The second factor (General Social Media Usage) is loaded by three questions, which are Q35, Q36 and Q37. The third factor (Basic Phone Usage) is loaded by three questions, which are Q5, Q6 and Q7. The fourth factor (Video Gaming) is loaded by three questions, which are Q29, Q30 and Q31. The fifth factor (Media Sharing) is loaded by three questions, which are Q22, Q23 and Q24. The sixth factor (Online Friendships) is loaded by two questions, which are Q43 and Q44. The seventh factor (Email Usage) is loaded by two questions, which are Q3 and Q4. The eighth factor (Facebook Friendships) is loaded by two questions, which are Q41 and Q42. The ninth factor (Smartphone Usage) is loaded by two questions, which are Q15 and Q16. Finally, the findings have demonstrated that the twenty one question has been dropped from the analysis, because its factor-loadings are very low or less than the criterion of factor loadings, which is 0.40 (Field, 2009; Han, 2009).

The current media and technology scale has nine factors or subscales, which are as follows: Facebook Check, General Social Media Usage, Basic Phone Usage, Video Gaming, Media Sharing, Online Friendships, Email Usage, Facebook Friendships and Smartphone Usage. These subscales are similar to the previous study (Rosen et al., 2013). This study has also shown that the Cronbach's alpha value (0.757) for the media scale is greater than 0.60. This indicates show that the technology and media usage scale have a acceptable internal consistency.

The study shows that Pearson's correlations between the study variables (nine variables in the use of media and technology, and three variables in attitudes towards the use of media and technology). There was a statistically strong statistical correlation between Facebook Check and Social Media Usage. There was a statistically significant positive correlation between Facebook Check and Video Gaming, and between General Social Media Usage and Video Gaming. Other notable correlations between media and technology use variables are weak positive correlations, r <.300, p <.05. The results indicate a correlation between most of the nine types of media and technology uses

The items Q1, Q2, Q8, Q9, Q10, Q11, Q12, Q13, Q14, Q17, Q18, Q19, Q20, Q21, Q25, Q26, Q27, Q28, Q38, Q39 and Q40 it can be noticed that twenty one questions are dropped from the analysis. Because, their factor-loadings are very low or their factor-loadings are less than the criterion of factor loadings, which is 0.40 (Field, 2009; Han, 2009).

4.5. Discussion on the Attitudes Subscale

The findings have shown that there are three factors. The first factor (Positive Attitudes) is loaded is loaded by four questions, which are QQ1, QQ2, QQ3 and QQ8. The second factor (Negative Attitudes) is loaded by three questions, which are QQ10, QQ11, and QQ12. The third factor (Preference for Task Switching) is loaded by two questions, which are Q13 and Q14. The study showed that the rounded ingredients using Varimax with the Kaiser normalization method. Two factors meet the eigenvalue criteria, and the third factor (preference for toggle tasks) does not meet the eigenvalue criteria. The primary value for the task switcher preference is (.957). It is represented by two powerful elements that have a loading factor (QQ13 = .744 and QQ14 = .624) and the relationship between these two components is .306, p <.001. Combined, the three factors explain 53.985% of the variance. When examined reliability findings, it was found that the value of Cronbach's alpha (0.699) is greater than 0.60. The study showed that there is a positive and statistically significant relationship between positive and negative attitudes, r = .311, p <.01, and between positive attitudes and a task switching preference, r = .319, p <.01. A moderate positive relationship is noted between negative attitudes and task switch preference, r = .376, p <.01.

5. Conclusion

In this study, as a result, Rosen et al. the scale developed by (2013) was adapted to Arabic. Arabic technology and media usage subscale consists of 9 factors and 23 questions. Cronbach's alpha value of this subscale is 0.757. Another scale adapted to Arabic is technology and media attitude subscale. This subscale consists of three factors and nine questions. In addition, Cronbach's alpha value of this subscale is 0.699. Reliability of both technology and media usage subscale and attitude subscale adapted to Arabic is acceptable level.

6. Recommendations

The current study recommends the following points:

- It is recommended to use the information obtaining by the current media and technology scale and attitude scale when designing the website or publishing advertisings or designing online advertising campaigns.
- It is recommended that the research centers and agencies can utilize the current media and technology scale and attitude scale can for measuring people's daily usage of technology-based media and other computer-related activities thus, measuring people's daily online activities can provide information and facts about people's behaviors, as the research centers and agencies can design marketing plans on behalf their clients, such as companies.

7. Limitations and Future Research

The media and technology scale and attitude scale were done with participants contained a self-selected sample of convenience from Libya; thus, the current media and technology scale and attitude scale that may not be generalized to other settings thus, future research is need to modify the current scales in other settings.

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MEDIA AND TECHNOLOGY USAGE AND ATTITUDES SCALE

Facebook Check

Q32: Check your Facebook page or other social networks.

Q33: Check your Facebook page from your smartphone.

Q34: Check Facebook at work or school.

General Social Media Usage

Q35: Post status updates.

Q36: Post photos.

Q37: Browse profiles and photos.

Basic phone usage

Q5: Send and receive text messages on a mobile phone.

Q6: Make and receive mobile phone calls.

Q7: Check for text messages on a mobile phone.

Video Gaming

Q29 Play games on a computer, video game console or smartphone BY YOURSELF

Q30: Play games on a computer, video game console or smartphone WITH OTHER PEOPLE IN THE SAME ROOM

Q31: Play games on a computer, video game console or smartphone WITH OTHER PEOPLE ONLINE

Media Sharing

Q22 : Watch video clips on a computer

Q23: Download media files from other people on a computer

Q24: Share your own media files on a computer

Online Friendships

Q43: How many people have you met online that you have never met in person.

Q44: How many people do you regularly interact with online that you have never met in person.

Email Usage

Q3 : Check your work or school e-mail

Q4: Send or receive files via e-mail

Facebook Friendships

Q41: How many friends do you have on Facebook?

Q42: How many of your Facebook friends do you know in person?

Smartphone Usage

Q15: Record video on a mobile phone

Q16: Use apps (for any purpose) on a mobile phone

Positive Attitudes

QQ1: I feel it is important to be able to find any information whenever I want online.

QQ2: feel it is important to be able to access the Internet any time I want.

QQ3: I think it is important to keep up with the latest trends in technology.

QQ8: With technology anything is possible.

Negative Attitudes

QQ10: New technology makes people waste too much time.

QQ11: New technology makes life more complicated.

QQ12: New technology makes people more isolated.

Preference for Task Switching

QQ13: I prefer to work on several projects in a day, rather than completing one project and then switching to another.

QQ14: When doing a number of assignments, I like to switch back and forth between them rather than do one at a time.

ARABIC VERSION OF MEDIA AND TECHNOLOGY USAGE AND ATTITUDES SCALE

النسخة العربية من استخدام وسائل الإعلام والتكنولوجيا ومقاييسها

تفقد الفيسبوك

Q32: تحقق من صفحة في الفيس بوك أو الشبكات الاجتماعية الأخرى.

Q33: تحقق من في الفيس بوك من هاتفك الذكي.

Q34: تحقق في الفيس بوك في العمل أو المدرسة.

استخدام شبكة التواصل الاجتماعي

Q35: نشر تحديثات الحالة.

Q36: نشر الصور ،

Q37: تصفح الملفات الشخصية والصور ،

استخدام الهاتف الأساسي

Q5: إرسال واستقبال الرسائل النصية على الهاتف المحمول.

Q6: إجراء واستقبال المكالمات الهاتفية المحمول.

Q7: التحقق من وجود رسائل نصية على الهاتف المحمول.

ألعاب الفيديو

Q29 العب الألعاب على الكمبيوتر أو وحدة التحكم في ألعاب الفيديو أو الهاتف الذكي مع نفسه

Q30: العب ألعابًا على جهاز كمبيوتر أو وحدة تحكم لألعاب الفيديو أو هاتف ذكي مع أشخاص آخرين في نفس الغرفة

Q31: العب ألعابًا على جهاز كمبيوتر أو وحدة تحكم لألعاب الفيديو أو هاتف ذكي مع الآخرين

تقاسم وسائل الاعلام

Q22: مشاهدة مقاطع الفيديو على جهاز كمبيوتر

Q23: قم بتنزيل ملفات الوسائط من أشخاص آخرين على جهاز كمبيوتر

Q24: مشاركة ملفات الوسائط الخاصة بك على جهاز كمبيوتر

صداقات عبر الإنترنت

Q43: عدد الأشخاص الذين قابلتهم عبر الإنترنت لم تقابلهم شخصيًا أبدًا.

Q44: كم عدد الأشخاص الذين تتفاعل معهم بانتظام عبر الإنترنت والذين لم تقابلهم شخصيًا أبدًا.

استخدام البريد الإلكتروني

Q3: التحقق من عملك أو البريد الإلكتروني المدرسة.

Q4: إرسال أو استقبال الملفات عبر البريد الإلكتروني ,

صداقات الفيسبوك

Q41: كم عدد الأصدقاء لديك على الفيس بوك

Q42: كم من أصدقائك الفيسبوك تعرف شخصيا

استخدام الهاتف الذكي

Q15: تسجيل الفيديو على الهاتف المحمول

Q16: استخدام التطبيقات (لأي غرض) على الهاتف المحمول

مواقف ايجابية

QQ1: أشعر أنه من المهم أن أتمكن من العثور على أي معلومات وقتما أرغب في الاتصال بالإنترنت.

QQ2: أشعر أنه من المهم أن تكون قادرًا على الوصول إلى الإنترنت في أي وقت أريد.

QQ3: أعتقد أنه من المهم مواكبة أحدث الاتجاهات في التكنولوجيا.

QQ8: مع التكنولوجيا كل شيء ممكن.

المواقف السلبية

QQ10: التكنولوجيا الجديدة تجعل الناس تضيع الكثير من الوقت.

QQ11: التكنولوجيا الجديدة تجعل الحياة أكثر تعقيدًا.

QQ12: التكنولوجيا الجديدة تجعل الناس أكثر عزلة.

التفضيل لتبديل المهام

QQ13: أفضل العمل على مشاريع متعددة في يوم واحد ، بدلاً من إكمال مشروع واحد والتحول إلى مشروع آخر.

QQ14: عند القيام بعدد من المهام ، أحب التبديل بينكما بدلاً من القيام به في وقت واحد.