

Effect of Social Media to Social Participation to 1st year College of Information Technology and Computer Science (CITCS) Students

Authors: Gayao, Katrina

Martin, Carlo

Osmena, Raymond

Variables

Categorical: Gender, Relationship Status, Feel that Social Media Affected Them

Quantitative: Social Media Usage, Social Participation, Number of Social Media Platform Used

General Tally

n	GENDER	RELATIONSHIP STATUS	NU. OF SOCIAL MEDIA USED	SOCIAL PARTICIPATION SCORE	FEEL LIKE SOCIAL MEDIA HAVE GREATLY	SOCIAL MEDIA USAGE SCORE														TOTAL						
						number of days use in a week							number of hours use in a day													
res 1	M	R	5	54	Agree	facebook	twitter	instagram	tumblr	snapschat	reddit	youtube	pinterest	discord	linkedin	facebook	twitter	instagram	tumblr	snapschat	reddit	youtube	pinterest	discord	linkedin	31
res 2	F	R	5	39	SA	once a week	daily	2-4 days		2-4 days	5-6 days	5-6 days				1-3 hrs	9 & above	9 & above		1-3 hrs	9 & above				26	
res 3	M	S	5	51	Agree	daily	2-4 days	once a week		once a week	5-6 days	5-6 days				1-3 hrs	1-3 hrs	1-3 hrs		1-3 hrs	9 & above				20	
res 4	O	R	7	51	SA	daily	daily	daily		5-6 days	daily	1-3 hrs			once a week	4-8 hrs	4-8 hrs	4-8 hrs		1-3 hrs	9 & above		1-3 hrs		39	
res 5	F	S	5	49	SA	daily	daily	daily		daily	1-3 hrs	1-3 hrs				1-3 hrs	1-3 hrs	1-3 hrs		1-3 hrs	1-3 hrs				30	
res 6	M	R	9	78	Agree	daily	daily	daily	once a week	once a week	daily	daily	once a week	daily		4-8 hrs	1-3 hrs	4-8 hrs	1-3 hrs	1-3 hrs	4-8 hrs	1-3 hrs	4-8 hrs		46	
res 7	M	R	4	60	Agree	daily	daily	daily		2-4 days	5-6 days	5-6 days				4-8 hrs	1-3 hrs	1-3 hrs		1-3 hrs	4-8 hrs				23	
res 8	M	S	8	44	Agree	5-6 days	2-4 days	daily	once a week	once a week	once a week	5-6 days		once a week	1-3 hrs	1-3 hrs	1-3 hrs	1-3 hrs	1-3 hrs	1-3 hrs	4-8 hrs		1-3 hrs		29	
res 9	F	S	5	54	SA	daily	daily	daily		2-4 days	daily	1-3 hrs				4-8 hrs	4-8 hrs	4-8 hrs		1-3 hrs	4-8 hrs				31	
res 10	M	S	5	48	Agree	daily	daily	daily			daily	daily				4-8 hrs	4-8 hrs	4-8 hrs		4-8 hrs	9 & above				36	
res 11	M	R	3	45	SA	daily					daily	daily				1-3 hrs				1-3 hrs	4-8 hrs				19	
res 12	F	S	3	51	Agree	daily			once a week		daily	daily				1-3 hrs			1-3 hrs	1-3 hrs	4-8 hrs				14	
res 13	F	S	3	60	Agree	daily					daily	daily		once a week		9 & above	9 & above	4-8 hrs	1-3 hrs	9 & above	9 & above			1-3 hrs	24	
res 14	M	S	8	64	SA	daily	5-6 days	2-4 days	2-4 days	once a week	daily	daily			once a week	9 & above	9 & above	4-8 hrs	1-3 hrs	9 & above	9 & above		1-3 hrs	40		
res 15	M	R	6	72	Agree	daily	2-4 days	daily		once a week	daily	daily			once a week	9 & above	1-3 hrs	9 & above		9 & above	9 & above			1-3 hrs	32	
res 16	F	S	4	62	Agree	2-4 days	2-4 days	daily	2-4 days	2-4 days	2-4 days	2-4 days				1-3 hrs	4-8 hrs	4-8 hrs		1-3 hrs	1-3 hrs				17	
res 17	M	R	4	53	Dis	daily	daily	daily	2-4 days	2-4 days	2-4 days	2-4 days				4-8 hrs	1-3 hrs	1-3 hrs		1-3 hrs	1-3 hrs				19	
res 18	M	R	7	75	Agree	daily	daily	daily	once a week	daily	daily	daily	once a week	2-4 days		1-3 hrs	1-3 hrs	1-3 hrs	1-3 hrs	1-3 hrs	1-3 hrs	1-3 hrs	1-3 hrs		34	
res 19	M	R	5	58	Agree	daily		daily		daily	daily	daily	daily			4-8 hrs	1-3 hrs	1-3 hrs	1-3 hrs	1-3 hrs	1-3 hrs				31	
res 20	M	S	4	52	Dis	daily	daily	daily		daily	5-6 days	5-6 days				4-8 hrs	4-8 hrs	4-8 hrs		4-8 hrs	4-8 hrs				28	
res 21	M	S	9	73	Agree	daily	once a week	2-4 days	once a week	once a week	once a week	5-6 days	once a week	once a week	once a week	4-8 hrs	1-3 hrs	4-8 hrs	1-3 hrs	1-3 hrs	4-8 hrs	1-3 hrs	1-3 hrs		28	
res 22	M	S	6	61	SA	5-6 days	once a week	2-4 days	once a week	once a week	once a week	5-6 days	once a week	once a week		1-3 hrs	1-3 hrs	1-3 hrs	1-3 hrs	1-3 hrs	9 & above				23	
res 23	F	S	6	61	SA	daily	daily	daily		2-4 days	daily	daily	daily			4-8 hrs	4-8 hrs	4-8 hrs		1-3 hrs	4-8 hrs	1-3 hrs			38	
res 24	M	R	5	68	Agree	5-6 days	once a week	5-6 days		2-4 days	daily	daily	daily			1-3 hrs	1-3 hrs	1-3 hrs		1-3 hrs	1-3 hrs				21	
res 25	M	S	9	79	SA	daily	daily	daily	once a week	once a week	5-6 days	daily	once a week	daily		4-8 hrs	4-8 hrs	4-8 hrs	1-3 hrs	1-3 hrs	4-8 hrs	1-3 hrs	4-8 hrs		45	
res 26	M	R	6	56	Agree	daily	daily	daily	once a week	once a week	5-6 days	daily	once a week	daily		1-3 hrs	1-3 hrs	1-3 hrs		1-3 hrs	9 & above				30	
res 27	F	S	9	68	SA	daily	2-4 days	daily	2-4 days	2-4 days	2-4 days	2-4 days	5-6 days	once a week		9 & above	1-3 hrs	9 & above	1-3 hrs	1-3 hrs	1-3 hrs	9 & above	4-8 hrs	1-3 hrs	48	
res 28	M	S	8	60	Agree	daily	daily	daily	2-4 days	once a week	2-4 days	daily		once a week	once a week	9 & above	1-3 hrs	1-3 hrs	1-3 hrs	1-3 hrs	9 & above			1-3 hrs	36	
res 29	F	R	3	44	Agree	daily					daily	2-4 days				9 & above	9 & above	9 & above		9 & above	9 & above				19	
res 30	F	R	4	77	Agree	daily	daily	daily			daily					9 & above	9 & above	9 & above		9 & above	9 & above				32	
res 31	O(B)	S	4	37	SD	daily	daily	daily			daily	daily				4-8 hrs	4-8 hrs	4-8 hrs		4-8 hrs	4-8 hrs				28	
res 32	M	S	3	51	SA	daily	daily	daily			daily	daily				9 & above	9 & above	9 & above		9 & above	9 & above				24	
res 33	M	S	4	49	Agree	daily	daily	daily			5-6 days					1-3 hrs	1-3 hrs	1-3 hrs		1-3 hrs	1-3 hrs				22	
res 34	F	S	3	65	SA	daily	daily	daily								4-8 hrs	1-3 hrs	1-3 hrs		1-3 hrs	1-3 hrs				19	
res 35	O	S	0	52	Dis																				0	
res 36	M	S	3	46	Agree	2-4 days		2-4 days			once a week	daily				1-3 hrs		1-3 hrs			1-3 hrs				9	
res 37	M	R	3	86	Agree	daily		daily			daily	daily				1-3 hrs	1-3 hrs	1-3 hrs		1-3 hrs	1-3 hrs				18	
res 38	M	R	2	42	Dis	2-4 days		2-4 days			5-6 days					4-8 hrs					4-8 hrs				11	
res 39	M	S	2	54	Agree	daily					5-6 days					1-3 hrs				1-3 hrs	1-3 hrs				10	
res 40	F	R	2	54	Agree	daily					daily	daily				1-3 hrs				1-3 hrs	1-3 hrs				12	
res 41	M	R	2	49	Agree	daily					2-4 days					4-8 hrs				1-3 hrs	1-3 hrs				11	
res 42	M	R	2	69	Dis	daily					daily	daily				1-3 hrs				1-3 hrs	1-3 hrs				12	
res 43	M	R	2	30	Agree	daily					daily	daily				4-8 hrs				4-8 hrs	4-8 hrs				14	
res 44	M	S	2	56	Agree	daily					once a week	daily				4-8 hrs					4-8 hrs				11	
res 45	M	R	2	52	Agree	daily					daily	daily				1-3 hrs				1-3 hrs	4-8 hrs				13	
res 46	M	S	2	46	Agree	5-6 days					5-6 days					9 & above				9 & above	9 & above				13	
res 47	O(G)	S	2	47	Agree	daily					daily	daily				4-8 hrs				4-8 hrs	4-8 hrs				14	
res 48	M	S	2	48	Agree	once a week					daily	daily				1-3 hrs				1-3 hrs	4-8 hrs				10	
res 49	M	R	2	49	Agree	daily					daily	daily				4-8 hrs				4-8 hrs	4-8 hrs				14	
res 50	M	S	2	51	SA	daily					daily	daily				1-3 hrs				1-3 hrs	1-3 hrs				12	
res 51	M	S	2	64	Agree	daily	daily				daily	daily				1-3 hrs	1-3 hrs			1-3 hrs	1-3 hrs				12	
res 52	M	S	3	61	SA	daily					daily	daily				1-3 hrs				1-3 hrs	1-3 hrs				12	
res 53	M	R	3	45	Agree	daily		daily			daily	daily				1-3 hrs		1-3 hrs		1-3 hrs	1-3 hrs				16	
res 54	M	S	3	79	SA	daily	daily	daily			daily	daily				1-3 hrs	1-3 hrs	1-3 hrs		1-3 hrs	1-3 hrs				18	
res 55	M	R	3	74	SA	daily	daily	daily			daily	daily				4-8 hrs		4-8 hrs		4-8 hrs	4-8 hrs				21	
res 56	F	R	3	70	SA	daily	daily	daily			daily	daily				4-8 hrs		4-8 hrs		4-8 hrs	4-8 hrs				19	
res 57	F	R	4	26	SA	daily	daily	daily			daily	daily				9 & above	9 & above	9 & above		9 & above	9 & above				32	
res 58	F	R	4	44	Dis	2-4 days					5-6 days	daily				1-3 hrs				1-3 hrs	1-3 hrs				15	
res 59	M	R	3	39	Agree	daily					daily	daily				1-3 hrs				4-8 hrs	4-8 hrs		1-3 hrs		18	
res 60	M	S	2	41	Agree	daily					2-4 days	daily				1-3 hrs				1-3 hrs	1-3 hrs				10	
res 61	F	S	2	31	Agree	daily	once a week	daily		once a week	daily					1-3 hrs	4-8 hrs			4-8 hrs	4-8 hrs				5	
res 62	M	S	7	71	Agree	daily	once a week	daily	once a week	daily	2-4 days	daily	daily	daily	daily	1-3 hrs	1-3 hrs	9 & above	9 & above	9 & above	9 & above	9 & above	9 & above	4-8 hrs	56	
res 63	M	R	2	71	Dis	once a week					2-4 days	daily				1-3 hrs				1-3 hrs	1-3 hrs				6	
res 64	O	S	2	30	SA	daily					daily	daily				9 & above	9 & above			9 & above	9 & above				16	
res 65	F	S	5	41	Agree	daily	daily	daily			daily	daily				1-3 hrs	1-3 hrs	1-3 hrs		1-3 hrs	1-3 hrs				28	
res 66	M	S	4	47	Agree	daily	daily	daily			daily	daily				1-3 hrs	1-3 hrs	1-3 hrs								

Summaries

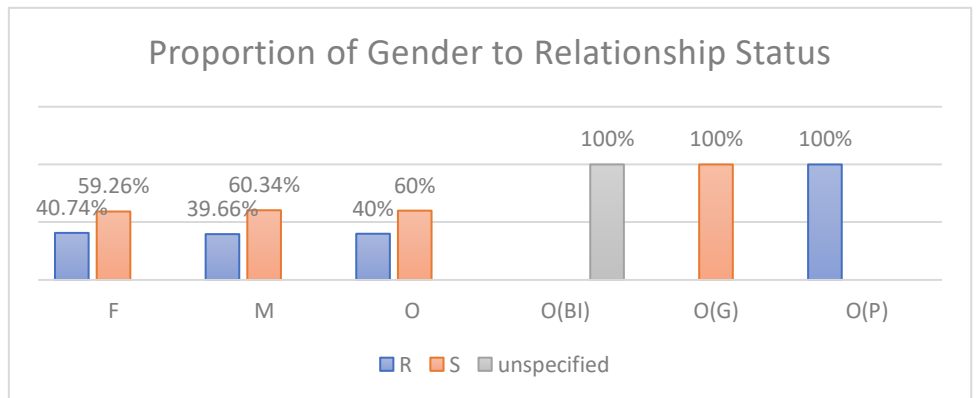
SUMMARIES										
number of respondents	93									
Categorical Data				Quantitative Data						
GENDER		SOCIAL MEDIA INFLUENCE		Mean	SD		min	max		
Males	58	Agree	57	SOCIAL MEDIA USAGE SCORE	21.38709677		11.44840245	0	56	
Females	27	Disagree	14	NUMBER OF SOCIAL PLATFORM USED	4.11827957		2.245040245	0	9	
Others (unspecified)	5	Strongly Agree	21	SOCIAL PARTICIPATION SCORE	49.47311828		15.29889979	15	86	
Bisexual	1	Strongly Disagree	1							
Pansexual	1									
Gay	1									
RELATIONSHIP STATUS										
Single	55									
In a Relationship	37									

Rank reasons for each platform

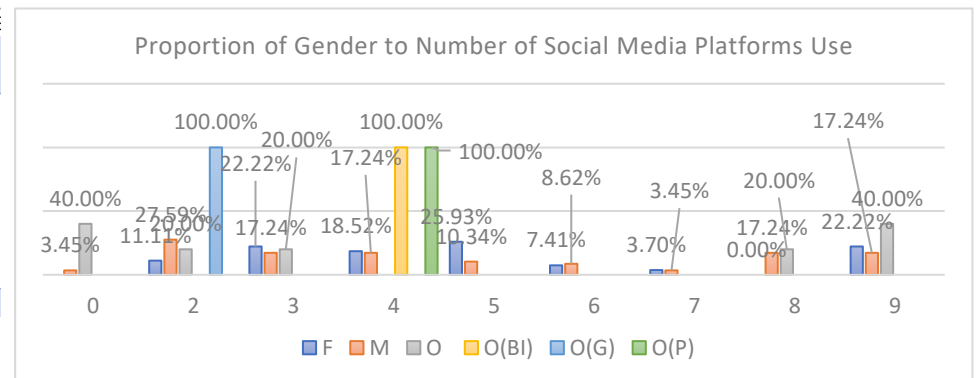
	facebook	twitter	instagram	tumblr	snapchat	reddit	youtube	linkedin	Discord	Pinterest
1	Keep in touch with friends	Entertainment	Entertainment	Obtain new information	Entertainment	Entertainment	Entertainment	Facilitate school work	Entertainment	Obtain new information
2	Obtain new information	Obtain new information	Keep in touch with friends	Entertainment	Keep in touch with friends	Obtain new information	Obtain new information	Gain Audience for work	Keep in touch with friends	Facilitate school work
3	Entertainment	Keep in touch with friends	Obtain new information	Facilitate school work	Find new friends	Facilitate school work	Facilitate school work	Obtain new information	Chat	keep in touch with family
4	Chat	Gain Audience	keep in touch with family	Keep in touch with friends	Chat	keep in touch with family	keep in touch with family	Entertainment	Update family and friends	Update family and friends
5	Facilitate school work	Find new friends	Find new friends	Update family and friends	Update family and friends	Keep in touch with friends	Find new friends	Gain Popularity	Obtain new information	Keep in touch with friends
6	keep in touch with family	Gain Popularity	Update family and friends	keep in touch with family	Gain Audience	Find new friends	Chat		Find new friends	Entertainment
7	Update family and friends	keep in touch with family	Chat	Chat	Gain Popularity	Update family and friends	Update family and friends		Gain Popularity	Chat
8	Find new friends	Chat	Gain Audience	Find new friends	Obtain new information	Chat	Gain Audience		Facilitate school work	Gain Popularity
9	Gain Popularity	Facilitate school work	Gain Popularity	Gain Popularity	Facilitate school work	Gain Popularity	Keep in touch with friends		Gain Audience	Find new friends
10	Gain Audience	Update family and friends	Facilitate school work	Gain Audience	keep in touch with family	Gain Audience	Gain Popularity		keep in touch with family	Gain Audience

Cross Tabulation with Proportions

GENDER AND RELATIONSHIP STATUS				
Count of n	R	S	(blank)	Grand Total
F	11	16		27
M	23	35		58
O	2	3		5
O(BI)			1	1
O(G)		1		1
O(P)	1			1
(blank)				
Grand Total	37	55	1	93



GENDER AND NUMBER OF SOCIAL MEDIA PLATFORMS USED											
Count of n	0	2	3	4	5	6	7	8	9	(blank)	Grand Total
F		3	6	5	7	2	1	3			27
M	2	16	10	10	6	5	2	3	4		58
O	2	1	1					1			5
O(BI)				1							1
O(G)		1									1
O(P)				1							1
(blank)											
Grand Total	4	21	17	17	13	7	4	3	7		93



Proportion of Gender to Perceived Great Effectiveness of Social Media

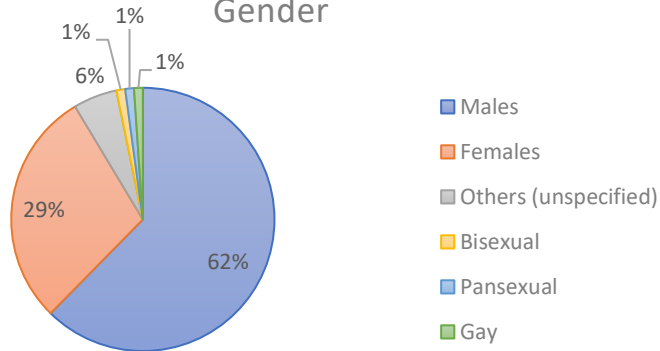
Group	Agree	Dis	SA	SD
F	59.26%	7.41%	33.33%	
M	67.24%	15.52%	17.24%	
O		60%	40%	
O(BI)				100%
O(G)	100%			
O(P)	100%			

PERCEIVED GREAT AFFECT FROM SOCIAL MEDIA AND SOCIAL MEDIA USAGE																																							
Count of n	0	5	6	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	28	29	30	31	32	34	35	36	38	39	40	45	46	48	56	(blank)	Grand Total	
Agree	1	1	3	3	2	3	2	4		2	2	3	3	4	2	1	1	3	1	1	2	1	1	2	2	1	1	2			1		1		1			57	
Dis	3	1	1		1	1	2		1				1								1	1							1									14	
SA						2				1		2	3		1		1	1		1			1	1	1				1	1	1	2		1				21	
SD																					1																	1	
(blank)																																							
Grand Total	4	1	1	4	3	3	6	4	4	1	3	2	5	7	4	3	1	2	4	1	2	4	2	2	3	3	1	1	2	2	1	2	2	1	1	1		93	

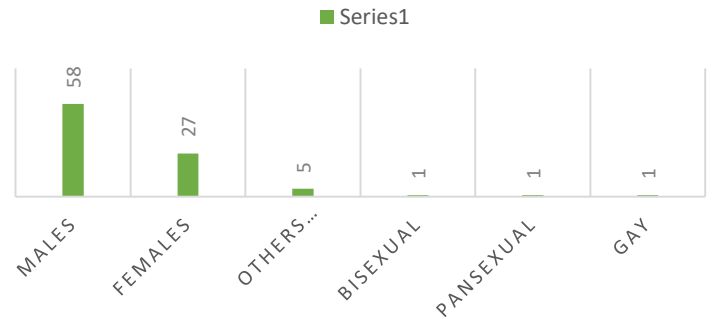
Graphs

Categorical

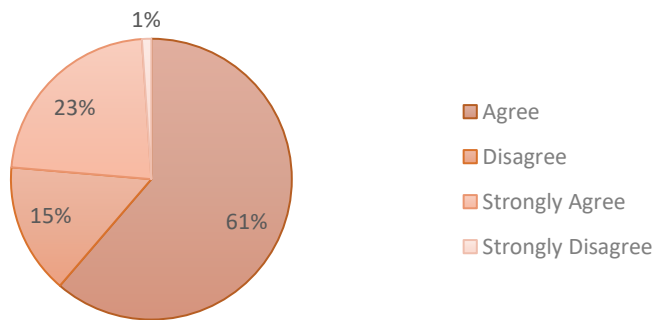
Gender



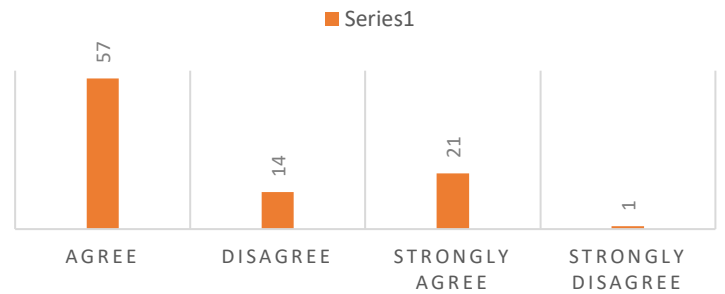
GENDER



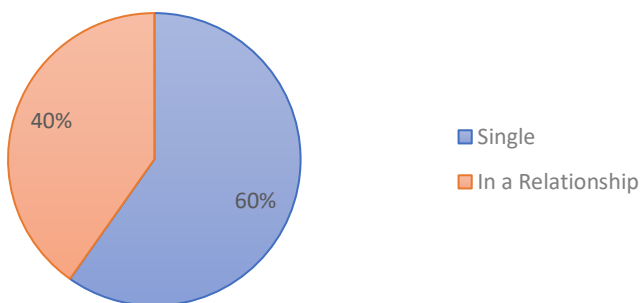
Feel that Social Media Affeted them



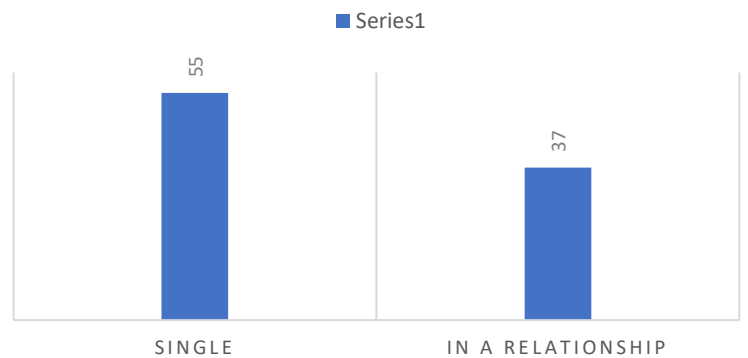
FEEL THAT SOCIAL MEDIA AFFETED THEM



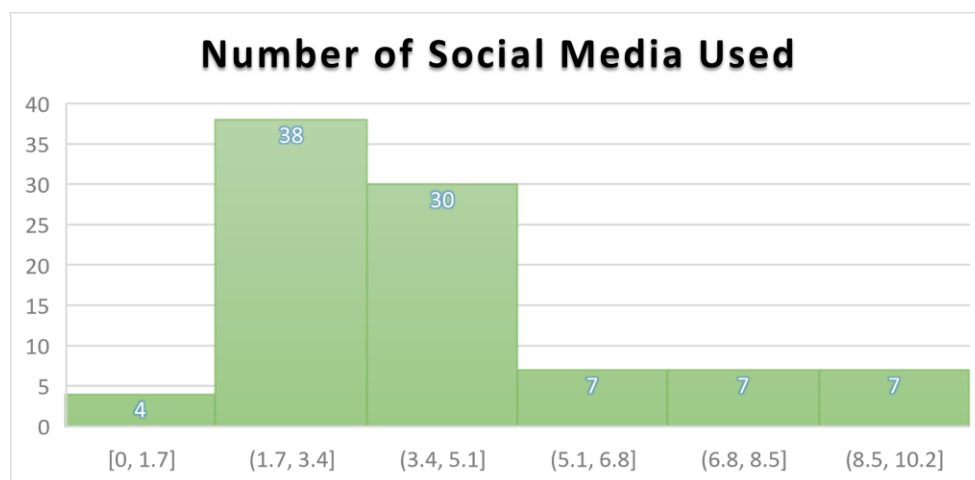
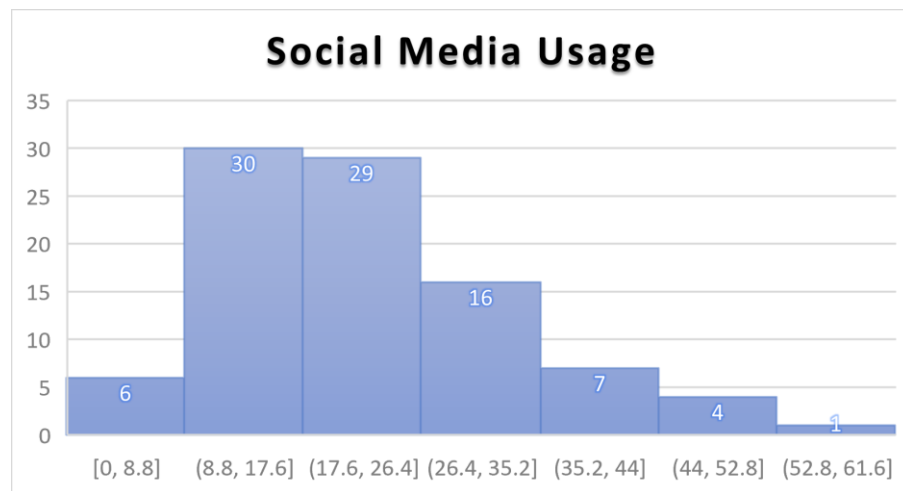
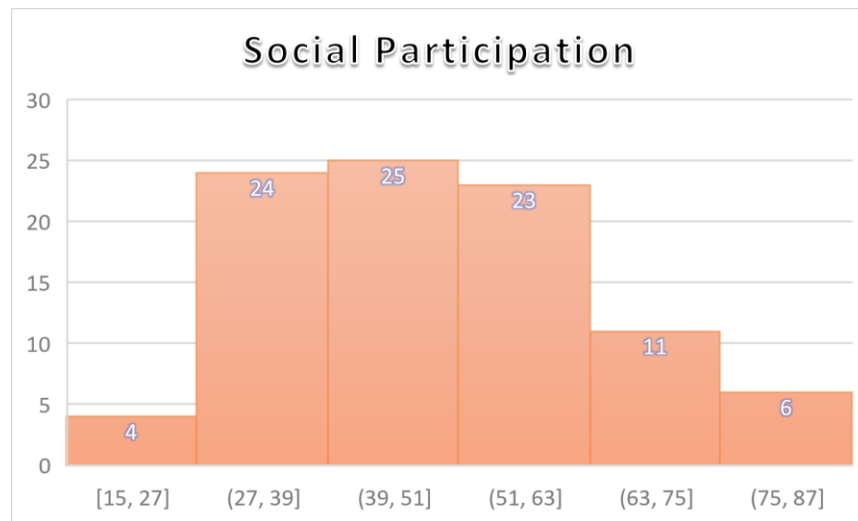
Relationship Status



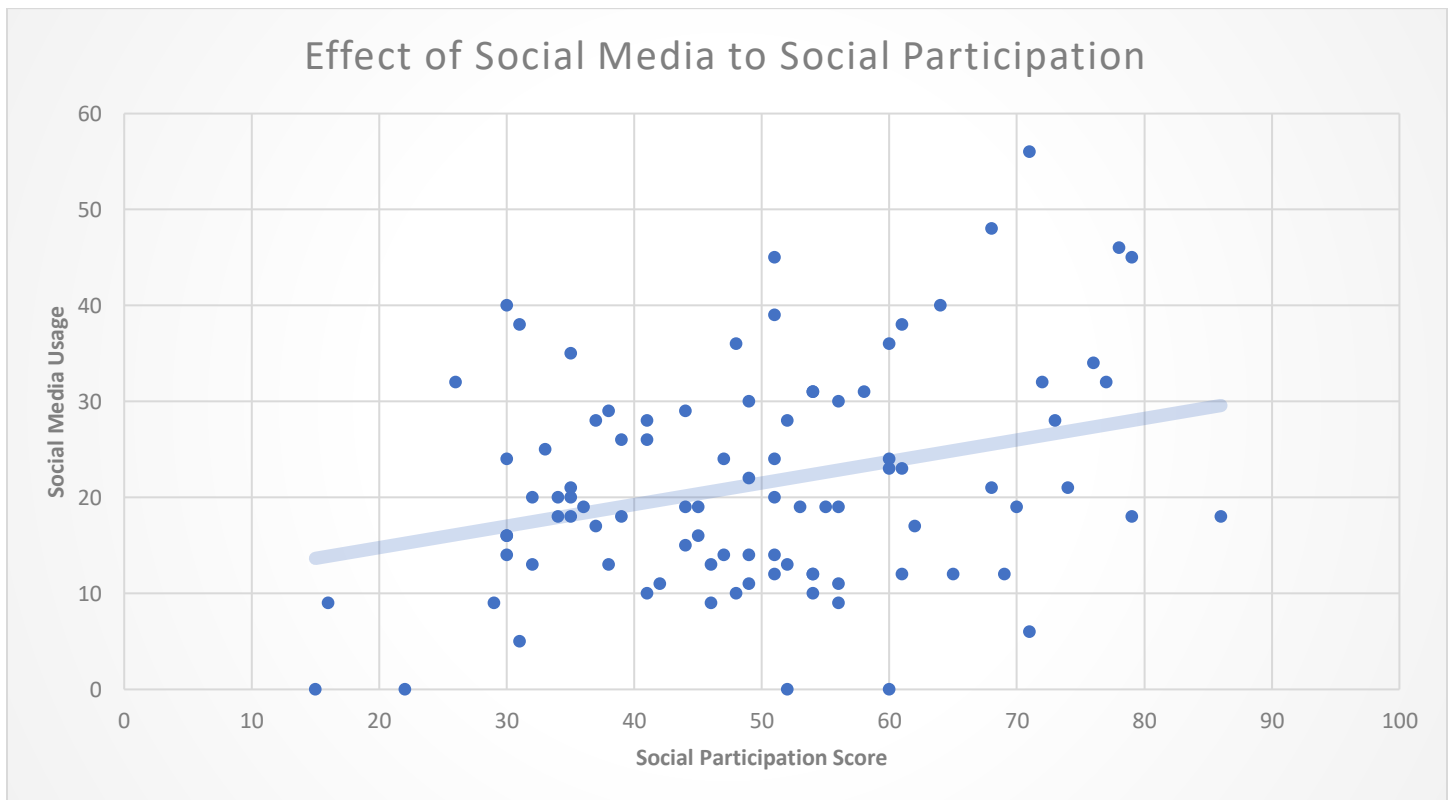
RELATIONSHIP STATUS



Quantitative



Correlations



The graphs seem to show that there is an association between the respondent's social participation and their use of social media. It implies that the more active the respondent is in social media the more they participate socially meaning they are also active socially.

Calculations

PEARSONS R

Social Participation and Social Media Usage
= 0.299744564

The Pearson's r between social media usage score and social participation score indicates that the two has a very low positive correlation as it is within the range .10 to .30

PEARSONS R²

Social Participation and Social Media Usage
= 0.089846803
=9%

The r-squared implies that 9% of the variation of Social Participation Scores is explained by the use of Social Media.

Hypothesis Testing

Ho Female social participation = to male social participation

Ha Female social participation \neq to male social participation

z-test calculations 0.01909723

the z-test is lower than .05 so we fail to reject the null hypothesis

The female and male social participation is about the same.

Ho Female social media usage = to male social media usage

Ha Female social media usage \neq to male social media usage

z-test calculations 0.061209799

the z-test is slightly higher than 0.05 so we reject the null hypothesis

The female and male social media platform use is almost the same but is still different

Ho Single social participation = to In a relationship social participation

Ha Single social participation \neq to In a relationship social participation

z-test calculations 0.299969166

The z-test is higher than 0.05 so we reject the null hypothesis

The social participation of single respondents is not the same with the social participation of those in a relationship

Ho Single social media usage = to in a relationship social media usage

Ha Single social media usage \neq to in a relationship social media usage

z-test calculations 3.77458E-09

The z-test is significantly lower than 0.05 so we fail to reject the null hypothesis

The social media usage of single respondents is the same with the social media usage of those in a relationship

Findings

This study has surveyed 93 first year College of Information Technology and Computer Science (CITCS) students to compute for the correlation or effect of social media to the student's social participation. We have gathered that majority of the students agree that social media has greatly influenced them and those who did not agree are mostly those who answered that they strongly agreed.

The average social media usage score is 21.39 with the lowest being 0 and maximum being 56. The average of social participation score is 49.47 with 15 as the lowest and 80 as the highest. On average the students use about 4 social media platforms with the minimum number being 0 and 9 being the maximum. The respondent's common reason for using these social media platforms was for entertainment, to obtain new information and to keep in touch with friends.

From the crosstabulation, we found that 56.26% of females and 60.34% of males in the study are single and that majority of these males and females have agreed that social media affected them greatly. It can also be observed that the most males use two social media platforms while females use about 3 to 6. The hypothesis test indicated that the social participation of those in a relationship and those who are single have a difference but have used social media equally. The same could be said when gender is subjected to a hypothesis test wherein the females and males have the same social participation score despite having some difference in their social media usage. This indicates that social participation may not be as affected by social media in terms of social relationships and gender.

From the crosstabulation also, it can be inferred that those who agreed that social media affected them greatly have average social participation score but lower social media usage and those who disagreed follow the same trend. In addition, according to the histograms, social participation score seems to be exhibiting a slight normal distribution however along with social media usage and number of social media used, it follows left leaning curve. This could mean that most of the student's social participation have impacted them despite a low use of social media.

Overall the study has found that the use of social media can affect social participation as there is an upward trend in its scatterplot. The trend indicates that the more the respondent uses social media the more they frequently participate socially. This association, however, has a low positive correlation with Pearson's r being 0.3 which means that 9% of the variation in social participation can be explained by the use of social media.

Conclusion

In conclusion, the study has found that there is a low correlation between the use of social media and social participation. According to the data, the more a person uses social media, the more likely they are to participate socially. However, with the low positive correlation of only 0.3, the association is negligible meaning that social media does not directly affect social participation of these CITCS students as only 9% of the change in social participation can be explained by the use of social media.

Aside from the scatterplot and Pearson's r calculations, the lack of correlation between social media and social participation can be observed from other statistical analysis tools that analyzes the sample categories of this study such as the cross tabulation that was used to compare the proportions of the respondent's score in social media, social participation and number of social media used according to their gender, and relationship status. It is in these tabulations we notice that there is a difference between the social participation of males and females, as well as the social media use of respondents in a relationship and those who are single. In order to test this difference we use the hypothesis test and found that despite the changes in social participation in gender the use of social media remains the same, and that despite the changes in the use of social media in the respondent's relationship status, social participation of the two variables remains the same. This contributes to the fact that social media does not impact social participation. However, it can be inferred in the cross tabulations that those who agreed that social media affected them greatly have average social participation score but lower social media usage and those who disagreed follow the same trend. With asymmetrical histograms, this indicates that social media does have an impact and most students are affected even though they use social media less.

This lack of correlation may be because the students use social media mostly as a source of entertainment or a place to find new information which can distract the respondents from participating socially and is supposed to result in an acceptable negative correlation. Although this did not happen, and it is probable that it is because it is balanced by the fact that this social media sites encourage people to socialize as the primary function of these sites is for socializing.

Reflection

This study was gathered from different sources. The survey questionnaire of this study were bits and pieces of other researches that includes measuring social participation and social media. This resulted with a unique study that involves a lot of data and variables which made it difficult to create a comprehensive study even though the variables do relate to each other. Handling this much data also made it difficult to distribute the workload evenly as it takes more time and energy to convince other members to do a relatively large amount of work and explain what to do with the data they are given.

We recommend a quantitative analysis project, or a quantitative research should be unique but deals with less variables. An example would be to make the research about the effect of social media to social participation is to keep the survey simple and focus on social media usage and social participation of a student which doesn't involve the reasons why people use social media and if they perceive social media to have affected them or not.

The result of this study wasn't as expected because we thought that due to the existence of social media people would not go out and participate in social gatherings and invents anymore but it turns out it's the opposite of that and there isn't much correlation between the two after all. This puts into perspective how important checking the correlation of a seemingly high correlated pair of independent and dependent variables because it may not be highly correlated pair and people are wasting time and effort for a fruitless and false study. Much like how people correlated video games with violent behavior which caused some authorities to neglect other sources of violent behavior like drugs and mental instability.

This survey of this project was also difficult to understand we think because it is different from the usual surveys the only involves questions to which we shall keep in mind for future use. Doing quantitative analysis was fun though because you didn't have to research other researches much and cite them, although it does get confusing when you're not good with interpreting data especially the results of the data analysis tools in addition to the difficulty of using these analysis tools.