21ST CENTURY PROBLEMS – EXPLORING RELATIONSHIP BETWEEN FACEBOOK USAGE AND ACADEMIC PROCRASTINATION

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Abstract: We are living in a digital age wherein the need and dependency for techno-savviness is becoming paramount, in every walk of life. People getting connected with others in multitudes of virtual platforms, have become a norm, these days. In such a society, usage of Social Networking Sites (SNS) with Facebook in particular, has taken major chunks of our day to day lives. In certain ways, this usage may result in shaping up of one's opinion, perspectives, motivation, and relationships with fellow human beings. College students, who are in their prime years of academic duties are exposed to these (at times) distracting attractions that have the potential to derail their academic progress. This study tries to explore the usage of Facebook by undergraduate engineering students and its relation to academic procrastination levels of these students. The results of the study are discussed and future directions are given.

Keywords: Facebook Use, Academic Procrastination, College Students, Social Networking Sites, Self.

INTRODUCTION

Facebook, a virtual social connectivity platform for communication is a brainchild of Mark Zuckerbergcreated in the year 2004. Within a very short span of time, it has become one of the widely used social media platform for young and old, alike. The site is tightly integrated into the daily media practices of its users: By the third quarter of 2016, Facebook have reported to have attracted a gargantuan 1.79 billion active users per month (Statista Quarterly Report, 2016). This shows the Virtual connectedness has become the norm of today's society and Facebook enables it greatly. The influence that Facebook has on people of the society is a topic that is getting prominent among social scientists in the recent years. While, the Facebook has its benefits, in terms of connecting people and making communication easier for the users, it also has few dark corners that when left unchecked could create serious issues at individual user and societal level. College students who are in their late teens could fall victim to this dark side of the Facebook. Hence, studying the level of emotional bonding that an individual has with his/her Facebook usage could shed more light on their other personality attributes. In particular, their tendency to delay the given academic task despite well aware of negative consequences of such delay. This is known as Academic procrastination. This in turn, could be of significant help for both behavioral scientists and institutions of the society.

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REVIEW OF LITERATURE

There is a reasonable quantity of specialized and widespread curiosity in the influence of social media on college student growth and accomplishment (Abramson, 2011; Kamenetz, 2011). Among the available social media website, Facebook has been the number one choice for college students across the world and past research on this suggests that there is about 80% to 90% of college students use Facebook in one form or the other (Hargittai, 2008; Jones & Fox, 2009; Matney & Borland, 2009). Though the proportion of students who are constantly in touch with social media and Facebook is high, it is imperative to recognize that there are tenacious variances along the paths of gender, racial, and socioeconomic categories in adopting and using technology. This is frequently mentioned as the digital divide (Cooper & Weaver, 2003; DiMaggio et. al., 2004; Hargittai, 2008; Junco et. al., 2010). Even though there are very few study on the consequences of using Facebook by college going adults and students, few research works in the past have examined the connection between Usage of Facebook and psycho-social consequences. For example, Ellison et. al., (2007) showed in their study that there exists a positive relationship between Facebook usage and social capital formation and maintenance. Social capital is defined as "the resources accumulated through the relationships among people" (Ellison et. al., 2007). In a later study, Ellison et. al., (2011) expanded their work on Facebook usage. This study showcased social information seeking tendencies of users of Facebook to be related to their social capital. This information was used to gauge and maintain social ties with other Facebook users who they may have not met in real life. Mazer et. al., (2007) study showed those instructors or teachers who were more open to self-disclosure in social media platform like Facebook attracted student's attention. This in turn, increased student's level of motivation for learning from such teachers. On the other hand, Moran et. al., (2011) found out in their study that most faculties use their social media surfing through Facebook for their personal use more so than for expanding and facilitating the students' class room learning. The wildfire like spreading of technology in every aspect of lives of youth in today's world makes it important to study the effect that such connective technologies have on college going youths and their academic progress (Jones & Fox, 2009; Matney & Borland, 2009; Smith & Caruso, 2010; Abramson, 2011; Kamenetz, 2011). Studies have showed Facebook usage and its relation to several facets of the college student involvement including, life satisfaction, social trust, civic engagement, and political participation (Valenzuela et. al., 2009), multitasking (Junco, 2012; Junco & Cotten, 2012), engagement (Junco, 2012), political activity (Vitak et. al., 2011), relationship building and maintenance (Ellison et. al., 2011; Ellison et. al., 2007; Valenzuela et. al., 2009) and development of identity and peer relationships (Pempek et. al., 2009). While studies have been steered on other aspects of the student experience, little research exists examining how Facebook relates to student's learning and Academic Procrastination (Aydin, 2012; Junco,

2012; Kirschner & Karpinski, 2010; Kolek & Saunders, 2008; Manca & Ranieri, 2013; Pasek et. al., 2009; Tess, 2013).

The term "Academic Procrastination" has gained notoriety over the last decade or so. Here, the student who is well aware of the effects of non-performance or benefits of performance still purposefully delays in performing or being involved in activities that are part of his/her role as student. These tasks or activities include, but not limited to assignment completion, project work, or preparing for exams. More often than not, the reason given by these students for such lackadaisical approach is directed at the lack of motivation from the student to complete the study related tasks in a given time by his/her tutor (Ackerman & Gross, 2005). Unbeknownst to these students, the results of such delays could and will have severe impediments on both psychological and academic growth. Academic procrastination in a long term, will lead to failure to attain the desired academic achievement in a specified time period. This, in turn, increases the chance of mental distress among those who practice this tendency (Ellis & Knaus, 1977; Ferrari et. al., 1995). Besides the perils relating to academic progress, there is the danger of these students developing inefficient coping mechanisms that is sure to create behavioral dissonance with the environment that they are exposed to and affecting the overall productivity of such individuals (Milgram et. al., 1998). While, majority research work projects procrastination as a negative phenomenon for achieving academic goals, there are few recent research works that shows procrastination in a positive light. A study by Chu and Choi (2005) shows that there could be few benefits involving academic procrastination in some students. According to them, those students who are averse of time specified goals could benefit from an active academic procrastination for relieving of time bound pressures. There is a study that postulates that active academic procrastination among undergraduates early in their academic semester makes them more stress and illness resistant than those who do not procrastinate, but as the semester progresses the roles gets reversed (Tice & Baumeister, 1997).

In the last decade or so, modern researchers have come to term procrastination as a form of temporal regulation failure of self which indicates the presence of high impulsivity from the individual (Gustavson et. al., 2014). This also indicates the individual's priority on attaining present self's happiness over the requirements of future self (Sirois & Pychyl, 2013). This failure or inability to control or regulate one's self over a period of time may lead to the development of procrastinating tendencies. Subsequently, this could also bring in experiences of highly negative emotions with the likes of guilt and shame of not completing what was supposed to be done in the destined time (Fee & Tangney, 2000; Flett et. al., 2012; Sirois & Tosti, 2012).

Since Facebook usage is popular among college students of all age and its potential in derailing student's academic focus is huge, it is vital to understand the relation between Facebook use and Academic procrastination.

Objectives of the Study

(i) To measure the Facebook usage and Academic Procrastination levels among select engineering students

(i) To test the relationship between Facebook usage and Academic procrastination levels

Hypothesis of the Study

H_1: There is a significant relationship between Facebook usage and Academic procrastination levels

H_{1a}: There is a significant relationship between Attitude towards Facebook usage and Academic procrastination levels

H_{1b}: There is a significant relationship between Frequency of Facebook usage and Academic procrastination levels

H_{1c}: There is a significant relationship between Number of Facebook friends and Academic procrastination levels

METHODOLOGY

A descriptive research design was adapted for the study with the application of quantitative research method in conjunction with a self-report based Likert style structured survey questionnaire.

Participants of the Study

A private university with more than 10000 engineering students of varied backgrounds and different academic levels were chosen as the target population of the study. A convenience sampling method was used to collect the intended sample data. Prospective respondents of the study were identified (undergraduate engineering students of mixed academic years) and requested to participate in the study and provide their honest responses on their own will. No monetary or financial benefit was accorded to them for the filling up of survey form. A total of 246 survey responses was collected out of which, 240 (post pruning of the unfinished, indecipherable responses) were considered for the final data analysis.

Measurement Instrument

For the present study, two widely used empirically proven instruments were adapted to measure Academic Procrastination (AP) and Facebook Intensity Scale (FIS). Tuckman's (1991) Procrastination Scale (TPS) is a widely used and highly reliable tool with greater validation for measuring academic procrastination over the past few years among behavioural and social scientists. TPS contains 16 statements along with four choices of responses resembling Likert style ("1 – That's for me sure" to

"4 – That's not me for sure") to choose from. For analysing the results of this measure, each choice for the statement is multiplied by its positional number (for example, choice 1 multiplied by 1, 2 multiplied by 2 and so on). Sum of these multiplications specifies the degree to which whether the respondent is an academic procrastinator or not (a sum score of 16 shows a high level of academic procrastination exhibited by the respondent whereas a sum score of 64 specifies vice versa).

Ellison et. al., (2007) developed Facebook Intensity Scale (FIS) to measure the Facebook use among normal adult population. Since its incorporation, it has gone through various revisions, modifications, and enhancements by other researchers. Still, the original version is widely used and capable of producing highly reliable and valid data on Facebook usage for critical empirical analysis. FIS uses 6 items with Likert styled choices through level of agreement (1 Strongly Disagree to 5 Strongly Agree). These 6 items tests on the respondent's attitude towards Facebook usages. There are two additional items besides the above 6are given in the FIS, to test out the Facebook usage frequency and approximate number of friends that an individual has in the Facebook are given (researchers are given the choice of using it as either open ended or closed ended choices) for additional information gathering and analysis.

DATA ANALYSIS

Once the data was collected, it was cleaned and coded for final analysis. There were 240 respondents in total with male numbering 122 while female being the remaining 118 with a mean age of 17.84 (SD 1.21) and 17.26 (SD 1.34), respectively. Table 1 depicts the details of this analysis.

TABLE 1: DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Gender	N	Mean Age	SD
Male	122	17.84	1.21
Female	118	17.26	1.34

First objective of the study was to measure the Facebook use and Academic procrastination levels of the chosen subject. The was completed with the help of using SPSS. For the present study, Facebook use is measured via three prisms. Starting with emotional connectedness that an individual has with Facebook usage (through his/her attitude towards Facebook use) a likert style data testing the level of agreement, secondly through frequency of Facebook usage, and finally, through number of friends that the individual has on Facebook (both with close ended choices using ordinal scale).

The results of the measurement tool used for the study (FIS and TPS) were fed into SPSS and minimum, maximum, mean and standard deviation scores were obtained. For attitude towards Facebook use, the lowest score was 16 while the

highest score was 30 with an overall mean score for the entire respondents stood at 24.54. For AP, minimum score obtained was 19 whereas a maximum score was 52 with an overall mean score for the entire respondents stood at 37.17. Reliability of the measurement tools was tested using Cronbach's Alpha method. For both the adapted instruments, the alpha values were sufficient with FIS having 0.81 and AP having 0.82 (Nunnally, 1978). The results of this analysis are given in Table 2.1.

TABLE 2.1: OVERALL - ATTITUDE TOWARDS FACEBOOK USE AND ACADEMIC PROCRASTINATION LEVELS

Overall	Min	Max	Mean	SD	α
Facebook Use (Attitude)	16	30	24.54	3.78	0.81
Academic Procrastination	19	52	37.17	11.12	0.82

When taking Gender into consideration, male respondents had the lowest score of 17 while the highest score of 30 with an overall mean score for the entire male respondents stood at 23.54 for measuring attitude towards Facebook use. For AP, minimum score obtained was 19 whereas a maximum score was 50 with an overall mean score for the entire male respondents stood at 38.52. Results of this analysis are given in Table 2.2.

TABLE 2.2: MALE-ATTITUDE TOWARDS FACEBOOK USE AND ACADEMIC PROCRASTINATION LEVELS

Male	Min	Max	Mean	SD
Facebook Use (Attitude)	17	30	23.54	3.11
Academic Procrastination	19	50	38.52	11.12

Similarly, when taking Gender into consideration, female respondents had the lowest score of 16 while the highest score of 28f with an overall mean score for the entire female respondents stood at 25.55 for measuring attitude towards Facebook use. For AP, minimum score obtained was 21 whereas a maximum score was 52 with an overall mean score for the entire female respondents stood at 35.83. Results of this analysis are given in Table 2.3.

TABLE 2.3: FEMALE-ATTITUDE TOWARDS FACEBOOK USE AND ACADEMIC PROCRASTINATION LEVELS

Female	Min	Max	Mean	SD
Facebook Use (Attitude)	16	28	25.55	3.78
Academic Procrastination	21	52	35.83	11.12

Next, when tested for frequency of Facebook use majority of the respondents (67%) fell in more than 3 hours per day Facebook usage category whereas users of 1 to 3 hours daily Facebook usage were in the middle (28.5%), and the remaining

respondents stood at less than 1 hour daily usage category (4.5%). Majority of Male (64.75%) and Female (70%) respondents were from over 3 hours of daily Facebook usage category. Results of this analysis are given in Table 3.

TABLE 3: FACEBOOK USE-FREQUENCY

	<1 Hour daily	*1 to 3 Hours daily*	*>3 Hours daily*
Male	8	35	79
Female	3	33	82
Overall	11	68	161

Finally, when asked the respondents to choose an approximate number of friends form the given choices (of three categories). Majority of the respondents belonged to more than 100 friends in Facebook category (77%), respondents with Facebook friends in the range of 50 to 100 were in middle (18.75), while the remaining few had less than 50 Facebook friends. Majority of Male (69%) and Female (86%) respondents had over 100 Facebook friends. Results of this analysis are given in Table 4.

TABLE 4: NO OF FRIENDS IN FACEBOOK

	<50	50-100	>100
Male	9	29	84
Female	1	16	101
Overall	10	45	185

The second and final objective of the study was to test out the relationship between Facebook use and Academic procrastination levels. For this, a Pearson's correlation analysis was run to test out the relationship between Facebook Use and Academic Procrastination using bivariate correlation testing method in SPSS.

Hypothesis Testing

H_{1a}: When tested for the relationship between attitude towards Facebook use and Academic procrastination the result showed statistically significantly positive correlation (0.68) at 0.001 significance level. Thus, sub-hypothesis H_{1a} has been accepted for the present study.

H_{1b}: When tested for relationship between Frequency of Facebook usage and Academic procrastination again there was a statistically significant positive correlation (0.54) between the two at 0.05 significance level. Thus, sub-hypothesis H_{1b} has been accepted for the present study.

H_{1c}: When tested for relationship between Number of Facebook friends and Academic procrastination again there was a statistically significant positive

correlation (0.51) between the two at 0.05 significance level. Thus, sub-hypothesis H_{1c} has been accepted for the present study.

Overall results of this test showed a statistically significant positive correlation existing between Facebook use and Academic Procrastination. Thus, Main-Hypothesis H_1 has been accepted for the present study. Results of this analysis are given in Table 5.

TABLE 5: CORRELATION ANALYSIS

	Academic Procrastination
Attitude towards Facebook usage	0.68**
Frequency of using Facebook	0.54*
No of Friends in Facebook	0.51*

** Correlation is significant at 0.01 level
* Correlation is significant at 0.05 level

DISCUSSION

Research works on the subject of Social Media and Social networking sites are pretty recent phenomenon. Much of the knowledge in this field has been just dug out, one by one thanks to many social scientists and behavioral researchers. Facebook being one of the widely known and used form of social media for communication and networking has given rise to increased attention among social and behavioral science community. There are many studies in this area have shown how Facebook is a two-edged sword on the hands of its users. While, it has its fair share of good points for being in use by many millions of people, it also contains a dark and ugly side to it. The user when sucked into this whirlwind of darkness will inevitably succumb to the perils of it. With college students being the high proportion of users among Facebook network, it begs for a exploration on the ill-effect of Facebook usage on that demographics with an area that is least studied with. Academic procrastination with its nature seems a natural partner in crime for the dark side of Facebook. Few researches in the recent times, have even come up with explanation of this unholy alliance by terming Facebook as a tool for procrastination. This is sure to be detrimental for the overall academic well-being of the students. This study tried to explore these themes and their relationship among the undergraduate college students.

Results of the study have shown there indeed, exists a significant relationship between Facebook usage and Academic procrastination. This appears to be gender insensitive, making both male and female gender to have similar affinity and outcomes towards their Facebook usage and Academic procrastination. Individual with deep emotive bonding or attachment with Facebook usage are also prone to displaying high degree of academic procrastination when tested for. The more the

hours spent on Facebook usage the higher the Academic procrastination levels are in such individuals. A similar result was found out between individuals with high number of Facebook friends and Academic procrastination. These results of the study are in line with some of the existing literature on these subjects. With the help of this study's results, existing understanding on the subjects of social networking site usage and academic procrastination can be expanded further.

FUTURE DIRECTIONS

Academic performance is a concept that need to be tested along with Facebook usage and Academic procrastination for getting even bigger picture on the mechanisms of these dark behavioral tendencies among college students. Similarly, Attachment relationships and Facebook usage could be studied upon for better understanding of Social capital efforts of individuals.

CONCLUSION

In whole, the present study furthers the existing understanding on the relationship between two equally detrimental aspects of human behavior partly assisted by technology. In a way, a student's increased Facebook usage should give away an underlying risk of procrastination expected of him/her in the present (or future). This signals for an intervention both at college level and at home. This is an area with plenty of challenges and moral dilemmas and we have not even touched the tip of it. More research that happens in this area will help form theories and mechanisms explaining the social media communication phenomenon and psychosocial behavioral outcomes.

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