# Cell Phone Social Storm

# Wonder Ponders

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Whether one sees the growing technology as beneficial or not, the advancements of smartphones have now become a normal part of society. The current social norm consists of individuals heavily relying on their phones to stay connected within a community. Because of this, college students have been utilizing their phones to interact with others through social media platforms that allow control in communication. However, the growing dependency of social media has created a counterproductive use of cell phone resources and school programs. In consideration of these concerns, this study is intended to understand college students' preferred choice of communication, phone purposes, social media use, phone dependency, and school involvement.

**Research Question 1:** Why do students prefer the use of smartphones for communication on college campuses rather than interacting with others?

**Hypothesis 1:** It is hypothesized that college students prefer the use of smartphones for communication because it allows the ability to regulate and control interactions with others.

**Research Question 2:** Are students influenced to use their cell phones when surrounding individuals are also occupied by them?

**Hypothesis 2:** If a student is surrounded by individuals on their phones, then the student will be influenced by surrounding peers to abide by the social inclination of phone dependency.

**Research Question 3:** Is there a correlation between the use of social media and student involvement with school assisting services?

**Hypothesis 3:** If students are on social media at least once every hour, then there will be a negative correlation with involvement in school programs intended to benefit college students.

**Research Question 4:** Do college students use their phones for other applications, or do they primarily use it for social media?

**Hypothesis 4:** It is predicted that college students primarily use their smartphones for social media rather than other applications available.

## **Participants**

The population involved in this research will be freshmen and sophomore students enrolled at College of the Sequoias. The sample frame of participants are college students located on the Visalia campus as an alternative to the other campuses located in Hanford and Tulare. The desired demographics for the survey in this study are gender, education level, and age (see Appendix C). Gender identity is determined by female, male, and "other" followed by a write-in space for specification to ensure equal representation for all genders is present. Education level will range from first year to fourth or more. Age will be manually written in by the participants. Overall, there will be approximately 225 students recruited through convenience sampling to participate in the survey designed found in Appendix C. Participants will be recruited in public areas on campus such as the cafeteria, classrooms and quad area. An additional set of 30 participants of 15 males and 15 females will be recruited for a selective indepth interview found in Appendix D. Interview participants will be selected under the circumstance of being on their phones within pass-time areas such as the campus cafe and the cafeteria. These areas are specifically chosen to ensure enough time is allowed for any clarification of explanations.

#### **Ethical Considerations**

The greatest risk of the study is the encroachment of an individual's privacy. To address any ethical concerns before any further advancement, it is required for the participants to read and sign the informed consent documents found in Appendix A and B. Aside from informing the participants of their rights, the informed consent document for both survey participants (see Appendix A) and interview participants (see Appendix B) also state the anonymity of their information regarding data and identity. If a student feels their privacy violated anytime during the survey or interview, the experiment will immediately end. If a sensitive subject affects a student emotionally, the experiment will also be terminated. Affected participants will be informed and directed to the mental health counseling programs offered by the Health Center. Particularly for the in-depth interview, 30 participants will each be audio-recorded if consent is granted. If a student refuses to be audio-recorded, they will not be penalized or coerced. The participants will also be briefed before the experiment is conducted to ensure they fully understand the nature of the interview in consideration of any possible sensitive subjects. However, the students participating in the survey will only be debriefed about the experiment after the questionnaire is finished to avoid any possible biased answers that may be influenced by the fear of judgment. Regardless, survey participants are aware of the general research topic information stated in both the consent form and the survey. The briefing and debriefing in both the experiments are to ensure they thoroughly understand and give the authorization to utilize their information. All elements of the experiment abide by the APA ethics code and categorize participants at minimal risks.

#### **Materials**

In this experimental research, the main materials gathered for usage consist of 2 consent forms, a 17-question survey, a semi-structured interview, and a phone audio-recorder. Because of

the survey giving statistical data and the semi-structured interview giving an in-depth analysis, the study will use both quantitative and qualitative methods. In both consent forms, the participants will be informed of the research and their protected rights within the study (see Appendix A&B). The participant rights as quoted on the consent form state: "You have the right to withdraw from the study at any time. You should be aware that even if you choose to withdraw from the study, you will not be subjected to reprimand or any other form of reproach" (Smith & Davis, 2013). Most importantly, the participants will authorize further advancements of the study if they willingly accept the terms of the consent forms.

In the 17-question survey (see Appendix C), the objective is attaining data on preferred choices of communication, social media use, phone purposes, phone dependency, and awareness of school programs. There are 14 multiple-choice questions, 2 check-off questions, and 1 fill-in-the-blank question designed for a specific answer. At the beginning of the survey, 3 questions are asked about demographics in terms of gender, age, and academic year. This is intentionally used in order to find any possible connections within the subgroups. The following questions 4 and 5 apply to the preference of communication. Questions 6 through 9 identify the types of phone applications participants actively engage with and the duration of hours spent on social media throughout the day. Questions 10 through 12 are to measure student awareness of available support services offered by the school. Specifically, check-off questions 6 and 10 seek to find any possible correlations between student involvement in school programs and time spent on social media. Moreover, questions 13 through 17 identify student phone dependency on campus. These 5 questions are adopted and revised from Emanuel et al.'s (2015) study of student phone addiction. Individuals who answer most of these questions (13-17) with a yes are more likely to

be extremely dependent on their phones. Contrary to that, an individual who answers most of the same questions with a no, are more likely to be resourceful and reliant on other accessible tools.

Lastly, in the semi-structured one-on-one interview, a phone audio-recorder will be used by the researcher in order to correctly transcribe the collected data for later analysis. The second consent form (see Appendix B) that will be given to interview participants is designed to emphasize the presence of a recording device. The 10 open-ended interview questions (see Appendix D) encourage participants to elaborate answers revolving around social media and phone use. Questions regarding phone purposes, preference of communication, and social media engagements will be asked. This is intentional to address the various reasons for growing dependency and utilization of cell phones. To further detail phone reliance, the researcher will also ask, "Are there any instances where you use your phone to avoid awkward situations?". Additionally, interview questions 9 and 10 will readdress the survey questions 10 through 12 (see Appendix C) regarding student involvement in school assisting programs. The questions and explanations in this interview are intended to further explain the data found within the survey.

### **Procedure**

The research that will be conducted in this study is intended to understand and focus on the following: preference of communication, social media use, phone purposes, awareness of specific school programs, and phone dependency within college students on campus. The target participants for this study are students from College of the Sequoias located on the Visalia campus. Specifically, this study will recruit students who own a cell phone. Approximately 225 college student participants will be recruited with variations in gender, education level, and age (located in questions 1-3 in Appendix C). These demographics will be used to find any

significant correlation between the various groups. To gain data for analysis, convenience sampling will be used to get participants in public campus areas such as the cafeteria and the quad area. Additionally, multiple instructors from the College of the Sequoias will be contacted in order to conduct surveys within their classrooms.

In the survey experiment, the "Consent Form for Survey" in Appendix A will be the first document given to the participants before any further advancements. Abiding by the APA ethics code, participants involved will be at minimal risk with possible sensitivity regarding survey questions 8, 15, 16, and 17 (see Appendix C). If a participant chooses to withdraw from the survey prior to, during, or after the experiment, the results will be invalid. Further steps will be taken for participants who will need assistance in resolving sensitive emotions caused by specific questions. The resolution includes, but is not limited to, informing the participant about the student health services available in the Health Center such as counseling sessions offered without any expense. Once participants sign the consent form, the researchers will then distribute the surveys for the participants to complete. The survey will introduce a general explanation of the research topic along with 17 questions that are expected to be completed within 10 minutes. If participants require more time to sufficiently answer the questions, the researcher will make necessary adjustments. Additionally, clarification and assistance from the researcher will be provided upon the participant's request. After the completion of the survey, the researcher will debrief the participants about the contents of the experiment. All quantitative data collected from the surveys will then be organized into an excel spreadsheet afterward.

The one-on-one interview will be conducted on 30 additional participants. There will be a proportionate amount of 15 women and 15 men desired for the study. Before any further progression, an alternate consent form (see Appendix B) will be given to the participants to

address their protected rights and research information. Audio-recordings will be stored on personal cellular devices to assist in the accuracy of transcribing data previously collected. Participants will be briefed and informed verbally about audio-recording devices as well as the research topic prior to the experiment to fully ensure they understand the authorization they are allowing. If a participant chooses to withdraw from the interview prior to, during, or after the experiment, the results will be invalid and further assistance will be given to those who have emotional concerns. In the instance that a participant does choose to withdraw from the study, their audio-recordings will also be removed. However, once permission is given, the researcher will then proceed with the semi-structured questions provided in Appendix D. The researcher will ask 10 open-ended questions (see Appendix D) to attain an in-depth explanation from the participants. The answers given by the interviewees will be used by the researcher to detail specific questions asked in the survey. Despite the approximate time (30 minutes) estimated for completion, the researcher will make necessary accommodations to sufficiently allow any clarification of misinterpretation. After each interview is concluded, participants will be requested to evaluate the complete dialogue to confirm or modify any responses. The interview data will then be organized for analysis.

Once both experiments are completely conducted and the data is collected, the survey information will be placed within an excel spreadsheet and the interview information will be evaluated for qualitative analysis. After the survey data is transferred, it will then be calculated to produce correlation graphs that visually emphasize any significant information. All quantitative and qualitative data collected from the surveys and interviews will determine preferred sources of communication, time spent daily on social media, possible phone dependency, and awareness of specific phone applications as well as programs offered by College of the Sequoias. After a

series of descriptive analysis and statistics, a discussion between the researchers will develop the conclusion of the study. The information gathered will allow for any replication for future researchers that seek to address similar issues of phone use that might affect the mass population of college campuses.

#### **Literature Review 1:**

Emanuel et al.'s (2015) research on phone addiction designed an experiment that addressed the growing impact of cell phone use at Alabama State University. The purpose of the study was to measure student awareness and acknowledgment of the growing cell phone dependency (Emanuel et al., 2015). The research consisted of an anonymous sample of 404 volunteer participants that represented 8% of the university's student population (Emanuel et al., 2015). A 19-question survey, intended to measure phone dependency of students, was dispersed in classes and public areas around the campus (Emanuel et al., 2015). The survey also included two demographic questions that asked participants to specify gender and academic year (Emanuel et al., 2015). The purpose of attaining these two demographics was to identify any possible correlations related to phone reliance. Emanuel et al.'s (2015) findings of self-reported data showed that about 75% of the participants were dependent on their phones. To further emphasize this, it displays more than half of the participants engaged with their cell phones despite not receiving any notifications for recent activities (Emanuel et al., 2015). Between the two genders, there was a greater number of phone reliance for females in relation to safety; a majority claimed it is critical to have their phones at all time to avoid any panic because of its absence (Emanuel et al., 2015). Although, there was a higher prevalence within males in responsiveness to check their phones for possible notification at least once every 5 minutes (Emanuel et al., 2015). In general, more than half of the participants admitted to phone

engagement without a notification or alert at least once every 5 minutes (Emanuel et al., 2015). The different educational years in Emanuel et al.'s (2015) research emphasized that the freshmen population relied greatly on their phones to assist in any issues contrary to any of the other group of students on campus. In comparison to other grade levels, an exceeding number of seniors (77%) remained near their phones when sleeping (Emanuel et al., 2015). Despite only 36% of participants admitting to having difficulties in concentration on school work while using a phone, it did imply that phones were distracting to an extent. Evidently, the data of this research emphasizes that the increase in phone dependency among college students has escalated as an addiction. Students are now more reliant on their phones because it does offer beneficial applications that allow assistance. Unfortunately, because of the increased dependency, college students now lack the knowledge of other helpful resources on campus. A similar replication of Emanuel et al.'s (2015) experiment will be designed with a focus on the increasing absence of involvement and communication on college campuses that arise from phone use.

### **Literature Review 2:**

Britany A. Harman and Toru Sato (2011), from the Shippensburg University department of psychology, conducted a study investigating the correlation between the frequency of undergraduate student cell phone use and GPA. The reason for conducting the study was to show that constant cell phone use negatively impacts academic performance in students (Harman & Sato, 2011). The study included 118 Shippensburg undergraduate students (38 men and 80 women) from ages 18-39 (Harman & Sato, 2011). The participants reported to a lab after being informed they would receive partial course credit. Initiating the procedure required students to sign a consent form document before completing an anonymous survey. The survey included demographic information based on age and gender, fill in the blank questions for cell phone use,

and questions based on GPA and academic year (Harman & Sato, 2011). The measurements consisted of multiple comparisons between student academic performance according to grade point average, age, gender, academic year, phone calls per day, and the daily average amount of text messages (Harman & Sato, 2011). After collecting and analyzing the results, Harman and Sato (2011), identified a negative correlation between student GPA and the number of text messages sent and received. The correlation indicated that students who sent and received around 100 text messages per day, had a lower GPA than the rest of the participants (Harman & Sato, 2011). Unexpectedly, a positive correlation was apparent in the data between GPA and student comfortability with texting during class (Harman & Sato, 2011). These findings determined that the students with a higher GPA were more comfortable texting during class than the students with a lower GPA (Harman & Sato, 2011). The results lack to find any correlation between phone calls, GPA, age, or academic year (Haram& Sato, 2011). In other words, phone calls had no impact on any of the other variables being measured. A T-test examined gender differences and found no significant findings between the demographics (Harman & Sato, 2011). This showed that gender was not a significant variable in this study (Harman & Sato, 2011). Overall, the study consisted of many limitations because it relies heavily on correlational findings to define certain information. Despite apparent correlation, it did not imply any causation (Harman & Sato, 2011). The study supports the concept that cell phone use has a negative influence on college students (Harman and Sato, 2011). This current research, with a slight variance of Harman and Sato's (2011) experimental model, will examine correlations of phone use determined by survey questions. Other forms of methodology will also be included to understand if cell phone use has a negative impact on college student success.

### References

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Appendix A

### Consent Form for Survey

Read this consent form. If you have any questions, ask the experimenter and they will answer the question.

The COS Institutional Review Board supports the practice of protection for human participants participating in research related activities. The following information is provided so that you can decide whether you wish to participate in the present study. You have the right to withdraw from the study at any time. You should be aware that even if you choose to withdraw from the study, you will not be subjected to reprimand or any other form of reproach.

In order to help determine the reasoning and purpose for cell phone use, your honest opinions, along with many others, will be anonymously used for analysis.

If sensitive material arises, you can withdraw and collect information on the resources available to you. Your efforts in this study are extremely appreciated.

This is a judgment-free research solely for the purpose of understanding phone usage. Although this consent form requires your signature, your information will only be used anonymously for analysis.

The following survey is approximately 10 minutes.

I have read the information provided and understand that this is completely voluntary.

X				

## Appendix B

#### Consent form for Interview

Read this consent form. If you have any questions, ask the interviewer and they will answer the question.

The COS Institutional Review Board supports the practice of protection for human participants participating in research related activities. The following information is provided so that you can decide whether you wish to participate in the present study. You have the right to withdraw from the study at any time. You should be aware that even if you choose to withdraw from the study, you will not be subjected to reprimand or any other form of reproach.

This research is intended to help determine and understand the reasoning for cell phone use on college campuses.

Although this consent form requires your signature, your information will be solely used anonymously for analysis.

To ensure the accuracy of your responses, audio recording devices will be used. You have the ability to evaluate the complete interview to confirm or modify any responses.

The following interview is approximately 30 minutes.

I give my permission to be audio-recorded and understand that the information will be kept private without any requirement to disclose any identifying information

X			

# Appendix C

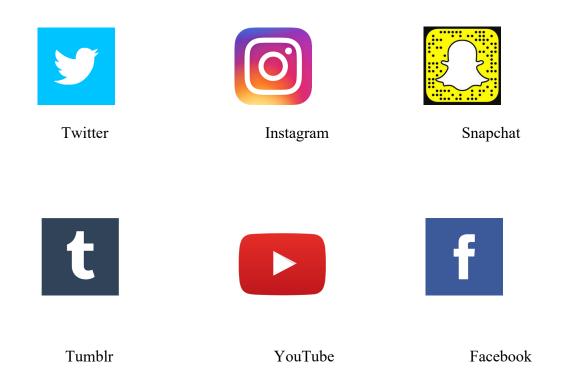
# Survey for Cell Phone Purposes

This survey is intended to understand college student phone use and the effects it has with involvement on campus. Therefore, the participants in this survey must have a phone in order to answer the following questions.

Information collected is solely for the development of research and used anonymously for analysis. The survey consists of 17 questions and will approximately take 10 minutes to complete. Please bubble, check, or write in answers when necessary.

1. Wh	at gender do you identify	yourself as?
a.	Male	
b.	Female	
c.	Other (please specify):	
2. Wh	at is your age?	
3. Wh	at year of college are you	currently in?
a.	1st	
	2nd	
c.	3rd	
d.	4th+	
4. Wh	at is the easiest way to co	ommunicate for you?
a.	Calling	
	Personally talking with	others
	Texting	
d.	Social media	
e.	Other:	_
5. Do	you prefer using your ph	one to communicate instead of having face-to-face conversations?
a.	Yes	b. No

6. Please check the " " for applications you engage with actively.



- 7. Do you use social media mainly for communication?
  - a. Yes

- b. No
- 8. During this past hour, were you on any social media at least once?
  - a. Yes

- b. No
- 9. How many hours are you on social media during the day?
  - a. 0 hours
  - b. 1 hour a day
  - c. 2 hours a day
  - d. 3 hours a day
  - e. 4+ hours a day

10. Please, check the " " for programs you are involved in or have engaged with.





Access & Ability Center







**Career Services** 

**COS Puente** 





Extended Opportunity Programs and Services

**MESA** 

- 11. How many times have you met or been helped by any of the school assisting programs within this semester? (These programs involve, but are not limited to, the programs previously listed in question 10).
  - a. 1-2 times
  - b. 3-4 times
  - c. 5-6 times
  - d. 7+ times
- 12. Do you rely on school programs to assist with your academic success?
  - a. Yes

b. No

# **CELL PHONE SOCIAL STORM**

13.	13. Do you feel safer when you have your phone with you?				
	a.	Yes	b. No		
14.	Do	you, on some occasions, us	e your phone to avoid conversations?		
	a.	Yes	b. No		
15.	Do	you feel left out when other	rs around you are occupied by their phones?		
	a.	Yes	b. No		
16.	Do	you feel disconnected from	social media when you do not have your phone?		
	a.	Yes	b. No		
17. Do you use your phone to reduce a bad mood?					
	a.	Yes	b. No		

This is the end of the survey. Thank you for your participation!

Appendix D

## **Interview Questions**

Participants selected require an approximately equal distribution of gender demographics with a recommendation of 15 women and 15 men. The participant also must own a cell phone to take part in this interview. The completion of this interview will take approximately 30 minutes.

Question 1: What do you use your phone for the most?

Question 2: Do you use social media, and if so, what do you use it for?

Question 3: Would you rather use your phone to communicate or would you rather talk to people face-to-face?

If so, why?

Question 4: Is it easier for you to talk with people in person or on social media?

If so, why?

Question 5: Are there any instances where you use your phone to avoid awkward situations? If yes, please explain.

Question 6: Are there any scenarios where you are on your phone even though you are not actually using it? If so, why?

E.g. Just swiping left to right on screen or pressing the home button continuously.

### **CELL PHONE SOCIAL STORM**

Question 7: Do you feel you have control over what information is known and shared about you on your social media? If so, How?

Question 8: How does your phone assist you in your daily life?

Question 9: Do you think your phone has helped you with your academic success? If so, how?

Question 10: Are you involved in any clubs or programs here on campus? If so, which ones?

This is the end of the interview. Thank you for your participation!