SKYPE USAGE AMONG COLLEGE STUDENTS

Ming-Ching Group 20
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Leah Garner
Liza Goldberg
Kacie Heil
Aubrey Ludwig
Michelle Malina
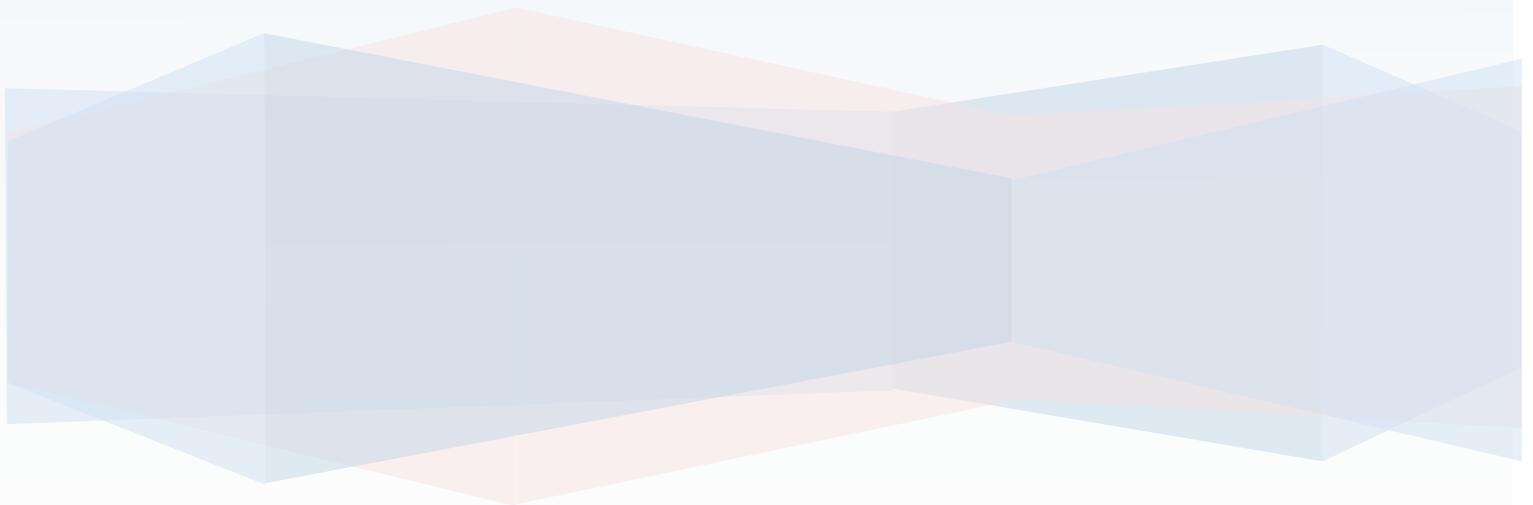
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EXECUTIVE SUMMARY

This study aims to understand how frequently undergraduate college students use Skype, a video conferencing program. Both primary and secondary research will allow us to better understand college students' subconscious reasoning for opting to use the program, frequently or infrequently.

Beginning with secondary research, the strengths, weaknesses, opportunities, and threats of Skype (as a company and a product) were evaluated in order to construct educated hypotheses and furthermore, build effective questions to be used in the primary research in which insight from college student samples was gathered. Then, a focus group consisting of nine students allowed us to further understand the pros and cons of the Skype software and video conferencing, in general. Lastly, an on-line survey provided widespread results from over two hundred participants.

All of the research efforts led to a consistent trend: College students have no perceived need to use video conferencing in their daily lives. They are unaware of the benefits that the program will provide, and are open to increased advertising that will reveal this information to them.

Thus, we recommend that Skype do just that: Increase advertising to college students and their peers (friends and family) in order to teach them

the value of the program. By making a convenient, accessible, and *useful*

form of communication, college students will react with increased frequency

of use.

In other words, Ming-Ching Group 20 has discovered that Skype, as a

brand, is *not* the problem; College students do not currently use any brand of

video conferencing. Further research and educated implementations will

allow Skype to spark interest in this demographic and subsequently gain

business and increase profits.

INTRODUCTION

Today's society revolves around technology and continuously changing tools for communication. From the evolution of the telephone to the invention of e-mail and the Internet, humans have gained access to dozens of communication devices and are faced with decisions on how to talk to family, friends, or peers. Most recently, Internet users were presented with VoIP software in which two can communicate face-to-face through the use of video cameras and microphones. Skype is the leading company in this field. The number of competitors is growing however, including reputable companies such as Apple and Google.

In a recent study, it was discovered that only ten percent of students use Skype on a regular basis (Mintel, 2011). With 19,713,000 Americans attending college in 2011, the company will need to execute innovative advertising campaigns, in addition to other strategies, to increase usage among this demographic (Mintel, 2011). In other words, the client's goal is to gain insight into why college students don't frequently use Skype. Better understanding of the criterion that college students look for in VoIP software, reasons for current dissatisfaction, and suggestions for

10
Percent of College Students That Use Skype Regularly

improvement will be needed to increase the program's frequency of use. A focus group and a comprehensive survey will be used to uncover this information. The survey will not be enough because open-ended questions will be necessary to allow for unexpected and insightful responses. Additional primary and secondary research will help form a thesis and execute conclusions.

These efforts will allow us to understand the steps that Skype will need to take to increase frequency of use among the college demographic and, ultimately, build brand loyalty.

SWOT ANALYSIS

STRENGTHS:

1. Skype has spread to Smartphone applications, has become embedded in TV's and game consoles, and developed partnerships with Facebook and Verizon Wireless (Skype, 2005)
2. Internet telephony is emerging as hot application in Wi-Fi Networks – Skype is leading provider in field (Fisher, 2005)
3. All outlets Skype is available from allows users to access it easily from anywhere
4. Free to download for PC-PC calling and PC-Smartphone calls
5. Better voice quality than MSN and Yahoo IM applications
6. Constantly updates for new versions of Skype with new features every 4-6 weeks
7. Supports IM and conferencing
8. Major following of about 50 million users. Company valued at about $8.5 billion. (Skype, 2011; Fisher, 2005)
9. Skype applies strong encryption to provide secure communication. Stores user information.
10. Teaching is able to reach whole new level with Skype. Professors can now give lectures in real-time at a distance. Allows convenience for both students and faculty.
11. Sykpe says it can work seamlessly across firewalls
12. Ability to help with language barriers for international students learning English and vice versa. (Marklein, 2008)

WEAKNESSES:

1. No more than 4 people can use video features on Sykpe at a time without paying a fee (makes revenue from PC-landline/other phone calls) (Skype, 2011)
2. Some say it is not easy to start up/navigate (Limited those who understand the technology)
3. Some companies are actually developing software to block Skype due to security concerns (Arthur, 2011)
4. Some have security concerns such as an open computer network vulnerable to viruses or denial or services. (Additional security concerns to follow) (Arthu
5. Files are not downloaded through a secure connection (site is vulnerable to fraud) (Vijayan, 2005)
6. Does not use unique I.D.'s (people can be impersonated easily)
7. The layout of the program is unable to be customized Some say it is "boring"
8. Doesn't have special effects (i.e. "on the moon", "on the beach", etc.) or various other features that its competitors include.

OPPORTUNITIES:

1. A recent partnership with Facebook will allow it to reach millions of consumers, especially Generations Y and Millenia
2. Owned by Microsoft, Skype has the potential to be pre-installed on all PC's before consumer purchases
3. With around 1.5 billion people on the Internet everyday, there is an enormous (and growing) market for Skype's services (InternetWorldStats.com, 2011)
4. Will be able to market to consumers that frequently use portable computers, or *tablets,* as they enter the "Early Majority" phase (Mintel, 2011)
5. If Skype gains a significant following of "loyal" consumers, it may be able to attract them to their fee-based, premium service in order to gain additional revenue
6. Can be targeted towards niche markets such as book-clubs, school clubs/organizations, etc. for meetings
7. China and India have a rapidly growing technology industry and an enormous population to support Skype's ability to thrive overseas (US Census Bureau, 2011)
8. Distribution of branded merchandise such as headsets, calling cards, and webcams for increased revenue

THREATS:

1. Not all computers have video cameras/microphones
2. Skype competes with other instant messaging networks and software programs. Many of these include video-conferencing features.
3. If users are in a location with poor Internet speeds, they may have a negative experience using the product and will choose to use Skype's competitors the future
4. Competitors (alphabetical)   Competing Industries
   -AOL Instant Messenger   -Messaging,
   -AV (AIM) Facetime (Yadav, 2011)   -Conferencing
   -Google Plus (Google, 2011)   -Comm Services
   -Google Talk (Google)   -Computer Software
   -Google Voice (Google)   -Telecom Services
   -ICQ   -Fixed-Line Service
   -iChat   providers
   -IBM Lotus Sametime   -Long-distance
   -Jajah   carriers
   -Lycos Phone
   -Oovoo (Oovo, 2011)

SITUATION ANALYSIS

Since its launch in 2003, Skype has attracted hundreds of millions of users to its product making it a hot commodity for investment among Fortune 500 companies. In order to predict what the future will hold for the exploding company, its strengths, weaknesses, opportunities, and threats must be carefully analyzed.

929 Million

Registered Skype Users as of 2011

The first and most important strength of Skype, as a company, is its size and standing as the leading company in the Internet telephony field. As of September 2011, Skype has 929 million registered users (Skype, 2003). Extremely reputable companies have shown interest in Skype, including Microsoft, Yahoo, eBay, and News Corps (Skype, 2003). According to Wikipedia, Microsoft won the battle when it "acquired Skype Communications for $8.5 billion (Skype, 2003). With its new technology, Skype also began to spread with Smartphone applications, becoming embedded in TVs and game consoles, and partnerships with Facebook and Verizon Wireless. The expansion of the program to various technology tools will be invaluable when targeting college students because they rely heavily on technology in their everyday activities (Mintel, 2011). Kevin Maney interviews Egon Durban in his

article, "Skype: The Inside Story of the Boffo $8.5 billion deal," who claims

the company's merger with Facebook was critical and its partnership with

Verizon "signaled that one of the world's largest carriers was not at war with

[Skype] but was supportive" (Maney, 2011). Skype also teamed up with

Comcast this year to bring its video chat service to Comcast subscribers'

HDTV sets. The second strength is the program's ability to generate revenue

through partnerships with advertisers. By selling airtime during video calls,

Skype works with advertisers such as Groupon, Universal Pictures, and

Visa. The ads appear on the home tab in Skype, but do not interrupt phone

calls, allowing them to reach audiences without becoming a nuisance. Skype

uses demographic data such as age and gender to place relevant ads with

certain users. As Arbel, Maislos, and Maislos note, "In some embodiments,

advertisements are provided in accordance with at least one feature

personality trait and/or at least one mood deviation feature" (2007). Thirdly,

Skype updates its software with new features every 4 to 6 weeks, keeping it

one step ahead of the competition. Also, these updates will hold college

student's interest as the demographic thrives on innovative ideas (Mintel,

2006). All of these outlets allow consumers access from any medium,

whether it is on the go via cell phone or at-home via PC. With the

technology and investments surrounding Skype, the possibilities (to be

discussed later) are endless.

Despite the company's success and continued growth, the Skype software has weaknesses that may inhibit its ranking as the leader among competitors. First, it lacks features that competing programs offer such as video-background effects (i.e. standing on the moon or on a roller coaster), video conferencing with more than 4 people (Skype, 2011) without a charge, or the ability to customize one's "buddy list" or create a user profile. As each generation provides unique (and changing) demands, Skype will need to

> "Some companies are developing software to block Skype because [of a fear of viruses]."
> *-The Guardian*

listen to college students' comments and complaints to fulfill their needs before competing VoIP brands if it hopes to prevent consumers from moving on to the 'next best thing.' The company's second, and most threatening, weakness is the security concern of consumers and businesses. According to *The Guardian*, some companies are developing software to block Skype because they fear it could "open up a computer network to viruses and denial of service attacks" (Arthur, 2011). Arthur also says that even a "mediocre hacker" could take advantage of Skype's vulnerability. This weakness is limited to certain demographics, as demonstrated later, because the primary research exposes multiple college students' indifference to this particular trait. Skype's inability to attract consumers to its premium service, Skype-

Out, hinders revenue and represents the third weakness of the company.

According to BBC News, only 8 of the 33 billion minutes of calling were

used by paying subscribers, generating nearly 860 million dollars (Hermida,

2006). If the company could discover a way to persuade their users to pay

for their services, it could acquire an enormous amount of revenue.

Perhaps the most exciting part to the company's analysis, Skype has

an endless amount of opportunities for the future. The first is almost

obvious; Skype has a huge target market. In March, internetworldstats.com

estimated that 2.1 Billion people access the Internet everyday, representing

nearly 30% of the world's population (2011). Today's society is dominated

by our addiction to the world-wide-web, and Skype's market will only grow

with time. Additionally, Skype's most recent partnership with Facebook will

allow further exposure to more than 750 million active users, 50% of which

log-in everyday (Facebook, 2011). Later,

qualitative data will reveal that college

students may be the most affected by this

partnership as they visit Facebook more

frequently than any other site. To even

further expand the number of consumers that

> **37,500,000**
>
> Facebook users that
> log-on everyday

will be exposed to its marketing strategies, Microsoft's investment in Skype

could lead to the installation of its software before consumer-purchase.

Another opportunity for the company is to inject itself into society's desire to learn new languages and study other cultures. Face-to-face, or even simply voice-to-voice for that matter, international communication can facilitate new educational advances and should be marketed to instructors and/or students as such. Lastly, Skype has the opportunity to take advantage of the recent invention of the portable computer, or tablet. Mintel forecasts that in 2015, 44 million tablets (iPads, etc.) will be sold, representing a 60% increase in four years (Mintel, 2011). The company has already created an application for the device, but should closely examine the demands of tablet users in the near future to increase the "App's" appeal. The company should also examine student interest in the tablet industry, as it could provide for potential opportunities to increase usage among the demographic.

The final category to take into consideration involves the threats that Skype will face as a company. Currently, Skype swims in a sea of dozens of competing programs that use VoIP software but only a trio of competitors makes the future less rosy for Skype. The first, Yahoo, is armed with an installed base of people that already have a Yahoo Instant Messenger account (Gralla, 2011). Anyone with an existing account can use the VoIP feature, and may be reluctant to download another program-

> Anyone with an existing Yahoo account can use the VoIP feature and may be reluctant to download another program.

Skype- to access features that their messaging software already has. Its second competitor, AOL Instant Messenger or AIM, is unique in its design. With AIM, users simply start a video-chat and share the link with potential participants. As each participant visits the link, they are automatically added to the conference (Yadav, 2011). The third competitor, Google +, is fairly new to the video-conferencing industry but already promises to be a fierce competitor due to an enormous amount of buzz surrounding its release. Called Google + Hangout, the program allows users to chat with up to 10 people and is more commonly used by groups of friends or co-workers. According to MustSeeOn.net, Hangout is not as successful as Skype for one-on-one chats because of its complexity in installation (Google Plus Hangout, 2010). In order to obtain consumers that prefer its competitors' programs, Skype will need to adopt these features, as well as create innovative services, to maintain its leadership standing. Other competitors to keep an eye on are Lycos (in which PC-Landline calls are free, unlike Skype), and Oovo Chat (a program that allows six-way calling and recording capabilities) (Gralla, 2011; Oovo, 2011). The company also faces a threat from consumers that do not have a camera and/or microphone built into their computers. Many consumers may not be willing to purchase the extra tools and will, therefore, be excluded from the target group.

  Overall, Skype's current following of loyal users and reputable brand

name will allow the company to flourish in the future as it discovers innovative ways to keep its consumers and attract others, but will need to overcome its weaknesses if it hopes to survive the fierce battle to come from rising competitors.

QUALITATIVE ANALYSIS

A focus group was conducted to collect data about Skype usage among college students, specifically at The University of Texas, and the reasons why they do (or do not) use the program. This report will examine the data gathered, present an explanation of the sample group and analyze the meaning of the results.

Objectives:

- To gain insight on student perceptions of Skype
- To collect data for the participants' frequency of use
- To understand college students' different preferred methods of communication, in addition to listing the people they choose to communicate with
- To discover the hesitations of students who don't frequently use the program in order to help Skype reach the target market in an effective way

Data Collection

The focus group was conducted on Tuesday, October 18th in The University of Texas library. Each group member was required to ask two people to engage in the focus group, one male and one female, with at least one participant from out of state. The focus group lasted for nearly one hour. Liza Goldberg led the focus group by asking questions, Aubrey Ludwig

recorded the participants using a video camera, and Michelle Malina, Kacie Heil, and Leah Garner each took notes.

The participants and the moderator sat around a table in order to encourage an active discussion. The other researchers sat in the back of the room taking notes as Aubrey walked around with the video camera. Each participant was able to see and hear each other, and seemed comfortable to share their opinion.

Upon arrival, the moderator instructed everyone to fill out their nametags and read/sign the consent form. The focus group then began with the moderator introducing herself and the other group members.

As an icebreaker, we asked our participants to state their names, their hometowns, and their most visited website. Without surprise, every participant answered that they most frequently visit Facebook, with a few who mentioned e-mail as well. This indicated the participants' value of communication with their peers and confirmed the prediction that Skype's recent partnership with Facebook will be an invaluable asset to the company's success.

Facebook

The site that *every* participant visits most frequently

The moderator was provided with a script of questions that would elicit insightful responses and encourage the participants to express their

opinions without bias. The moderator was, however, instructed to include any questions necessary to expand on certain topics and to fully grasp the meaning of each student's response.

Sample Description

The nine participants represented a diverse group in order to avoid demographic biases, although all were undergraduate students.

Ultimately, the sample was somewhat randomized because each group member relied on any two friends that were able to attend, and were willing to participate without compensation. The participants were between 18 and 21 years of age, with hometowns ranging from Colorado, Mississippi, Texas, and California. There were four male and five female participants, including two couples. Six had used Skype before, but all nine participants had heard of the program prior to the focus group. One, in state, male did not show up to the meeting. Some were more vocal of their opinions than others, but for the most part, the responses were evenly distributed.

Limitations

The location presented a problem due to another advertising research group holding a focus group (on the same topic) at the same time in an adjacent room. This made it harder to hear the participants at times, and the participants could periodically hear the other group's opinions of Skype.
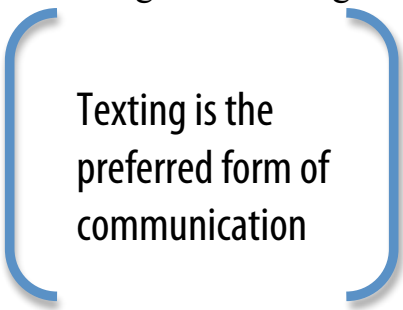
Additionally, our focus group was planned in one week; Therefore, many of the participants were chosen because of convenience.

One question provided responses with little value to the findings of the focus group. Predicting that better understanding of the features college students look for in a communication tool could be gained, the participants were asked to create an ideal device. Their responses, such as a teleportation device, were not helpful to the objectives of the study.

Additional focus groups are recommended to achieve more accurate results. It would be ideal in the future to gather a sample of random college students instead of friends chosen by group members.

Results

The opening questions emphasized frequency of Internet usage, the tools and methods used for communication with friends and family, and reasoning for choosing some methods of communication over others. These

> Texting is the preferred form of communication

questions exposed that the majority of the participants use the Internet for 4 hours each day, with an occasional outlier of 1 hour or up to 6 hours. Many expressed that they primarily use the web to visit Facebook, check or delete e-mails, visit Blackboard, watch videos on YouTube, conduct research for homework, check ESPN, and use search engines such as Google. The group members unanimously

agreed that texting is the preferred form of communication. One participant

stated, "with Skype, you need to devote your attention to the person [with

whom] you are communicating," where as texting allows multitasking.

The participants were then asked to provide their thoughts about video

conferencing, in general. There was more disagreement on this subject.

Some felt that VoIP software is great for "sharing a screen" with the person

on the other end of the conversation when attempting to demonstrate

something on the computer. There were also participants that held negative

views about video conferencing. One male participant pointed out that he

thinks, "Skype is awkward, and could never imagine himself asking another

male friend to Skype him to keep in touch." Also supporting this theory,

couples expressed the fact that they only use Skype to communicate long-

distance, with the female primarily initiating

the conversation. The males in the group

agreed that the only person they would ever

use video conferencing for is a girlfriend.

The next set of questions aimed to

discover how frequently each student uses

Skype. Those who had previously used the program expressed that they

usually use the program four to six times per year. All participants agreed

that at school, there is not a strong necessity to use Skype.

4-6

Number of times the students use Skype each year

The participants with Apple computers stated that they have also tried iChat, a program that many consider to be Skype's biggest competitor. The participants agreed Skype had a "better connection" on most occasions.

Beginning at this point in the Focus Group, our moderator 'turned the tables' on participants, asking them questions that would allow them to predict how their peers feel about video conferencing and why. This series of questions aimed to uncover empirical support for the Theory of Planned Behavior. When asked what demographic would most likely benefit from video conferencing, all of the students agreed that teenagers, or younger kids, would use Skype because they don't have cars and cannot see their friends as often as college students and adults. One student also suggested business professionals, but the rest of the group stated that Skype should steer away from the "bubbly" appearance to gain business from the professional demographic.

> Participants dislike "Mood Updates" and friend requests from strangers

The next questions focused on flaws in the Skype program. The participants agreed that they dislike notifications, referred to as "Mood Updates," when friends sign on and off. They were also annoyed with strangers asking to join their Skype lists.

The participants added that the number of people they would Skype is very limited, and will not expand because of any future changes in the program. This leads us to believe that it may not be the flaws of Skype that steer college students away, it may just be a lack of interest in video conferencing. Many have downloaded the application, just never felt compelled to use it on a regular basis.

The next questions presented the group with hypothetical situations in order to "test" possible recommendations that would increase usage in this target group. First, the participants were asked if they would feel comfortable participating in a job interview via Skype, but the majority responded no, they would prefer to meet in person. However, if the Skype interview is mandatory, they would agree to it. One participant agreed that he would even *enjoy* it because he would be able to express his personality better than through a phone call.

The conversation was then opened to the other researchers. One team member asked if the participants would consider more frequent use of Skype when studying abroad. Surprisingly, nearly all of the participants stated that they would still not use it, because it would be a hassle to plan conversations around time zone differences and would instead prefer e-mail to communicate.

To conclude, the students were asked to provide recommendations to help Skype improve as a brand. They unanimously suggested that Skype should increase their advertising to the target market. They suggested that Skype "focuses more on making people aware of the benefits of video conferencing" and the features that the program offers. Furthermore, one of the participants noted that emotional appeals would be an effective strategy for Skype to appeal to college students.

Common themes

A. "No interest"

All of the students expressed a lack of interest in video conferencing software. Although the students did provide suggestions for improvement, they consistently noted their disinterest to use Skype at this point in their lives.

B. "Convenience"

The group repeatedly noted the importance of convenience when discussing methods and tools of communication. As mentioned earlier, texting is the most popular form of communication among the participants because it allows for multitasking. Additionally, students like texting because "it is available anywhere, and conversations can continue in any situation, such as in classes or appointments." Facebook chat/messaging was the second most common form of communication among the participants.

This finding is supported by the secondary research in which we learned that Facebook has "750 million active users, 50% of which log-in everyday" (Facebook, 2011). Also, the participants agreed that Facebook is convenient because they are already accessing the Facebook home page when they decide to start a conversation and, therefore, do not have to open a new screen. They all agreed that they tend to start conversations on Facebook with people who are conveniently online, rather than actively planning conversations.

Implications

> Skype will need to increase advertising to demonstrate the benefits that college students will gain from the program.

The participants currently do not understand these benefits, but did express an interest in learning more about the influence that video conferencing can have in their lives. Currently, this group rarely thinks about the product and a lack of advertising to this demographic could be to blame.

The focus group helped gain insight that would not have been accessible through other forms of research. This new information aided in the construction of hypotheses and effective survey questions. The results from this primary research also allowed for educated recommendations, such

as increased demonstrative advertising to college students as Skype hopes to increase the target's frequency of use.

It is also important to note that none of the students were concerned with security issues in the software or the possibilities of hackers and viruses. As mentioned in the situation analysis, *The Guardian* reports that some companies are developing software to block Skype because they fear it could "open up a computer network to viruses and denial of service attacks" (Arthur, 2011). Arthur also says that even a "mediocre hacker" could take advantage of Skype's vulnerability. This doesn't seem to be a threat to the college student demographic.

Overall, this primary research uncovered that the most apparent trend is a general lack of interest in using video conferencing among college students. Thus, all future research methods will aim to discover how Skype can spark this interest in its target group.

QUANTITATIVE ANALYSIS

Objectives:

- To collect data from a larger sample
- To expose the relationship between college student's frequency of use and their friends/family's frequency of use
- To discover college students' attitudes about Skype
- To understand the causes for these pre-conceived attitudes

Hypotheses:

After gathering substantial qualitative data from the focus group, we hypothesized that opinions of video conferencing (as a whole) are positively related to opinions about Skype and that a consumer's number of peers who are advocates of Skype is positively related to their own intention to use the program. The following items were then measured: Skype use, attitudes, and norms. 'Skype use' measures how often college students are using the program, 'attitudes' measure the target audience's feelings and opinions towards Skype, and 'norms' measure the expectations that consumers feel they have while using the program within their social group.

The 'Skype use' index aimed to explain factors that increase or decrease frequency of usage among college students. The Theory of Planned Behavior was also used to measure attitude and norms. This theory suggests

human action is influenced by behavioral, normative, and control beliefs. Icek Ajzen's article explains, "the more favorable the attitude and subjective norm, and the greater the perceived control, the stronger should be the person's intention to perform the behavior in question" (Ajzen, 2002). Thus, it can be determined that measurement of attitudes and norms can uncover the degree to which college students intend to use Skype.

The On-Line Survey:

Teaming up with multiple other research groups, a survey consisting of questions that would measure Skype usage among the population, as well as elicit evidence that supports the Theory of Planned Behavior was formed. The questions were formatted "by means of standard scaling procedures" because Ajzen presumes that this type of question will measure attitudes, subjective norms, and perceived behavioral control most efficiently (Ajzen, 2002).

The survey was distributed through an e-mail that provided a link to the Qualtrics survey. This e-mail was sent only to other students at The University of Texas at Austin, ensuring that the sample consisted of undergraduates. The survey was active for six days: From Friday, November 11, 2011 to Thursday, November 17, 2011. 470 respondents opened the survey, but only 379, or 77%, actually completed the survey of 45 questions. Of the 379, only 205 participants answered every question. Therefore, only

205 students were considered in the analysis of the data. Out of the responses considered, 66% are female and 33% are male. This inequality may be due to the fact that the majority of the researchers are female and likely asked close friends to complete the survey.

The first index measures Skype use among undergraduate college students. This index received the lowest reliability, 0.79, but is still considered respectable according to Cronbach's Alpha thresholds. In this index, we asked the students, "In the course of this past month, how often have you used Skype?" A relatively low mean resulted, with a response of only 2.07 (standard deviation=1.41) whereas the next question, "How often do you use Skype?" elicited a mean of 4.23 (standard deviation=1.22). Overall, the 'Skype use index' resulted in a mean of 9.73, a median of 10, a mode of 10, and a standard deviation of 1.78.

The second index in the table measures the user's attitudes about Skype. The index reports a very good reliability (according to Cronbach's alpha) of 0.91. The individual points for this concept discuss how useful, helpful, and productive Skype is. The resulting means of these points are all fairly similar ranging from 4.43 to 4.77 with a standard deviation of 1.55. Taken as whole, the attitudes concept received a median of 13.9, a median of 14, a mode of 12, and a standard deviation of 4.33.

The final index measures the norms of Skype, more specifically, what is expected of the college student when using the program. The index holds a very good reliability of 0.85. The means for this concept are similar, ranging from 2.41 (standard deviation=1.23) to 3.23 (standard deviation=1.54). These individual items discuss how expected it is of them to use Skype. For instance, one question asked the students to agree or disagree with the statement, "It is expected of me that I use Skype to communicate with those close to me." The norms index resulted in a mean of 8.57, a median of 9, a mode of 6, and a standard deviation of 3.7.

Limitations

Although each of the three indices have reliabilities ranging from respectable to very good, the validity of the concepts may be threatened by a possible selection bias of the population sampled. For example, the results may be biased due to an unequal balance of male and female participants. According to the focus group, this could be a problem because females are more likely to use Skype and generally hold more positive and optimistic outlooks on the program.

The survey's results may have also been tampered due to the fact that the entire sample population represented students from the University of Texas at Austin. This will impact the validity of the survey results because

of the inability to sample from a larger pool of college students across the nation.

Additional Results

In addition to determining the reliability and comparing the means of the concepts, the correlations among the indices were measured. To analyze this information, the relationships between the variable in the 3rd table were compared using the Pearson Correlation. This correlation determines the significance, direction, and strength of indices. In order to find the significance of the variable, the 2-tailed test and the "p-value" must be less than 0.05. The number must be greater than zero in order to confirm that the correlation is positive. On the other hand, if the number is less than 0, the correlation would be deemed negative. The following scale was used to determine the strength of the correlation: zero suggests there is no relationship; 0-0.2 represents a very weak relationship; 0.2-0.4 represents a weak relationship; 0.4-0.6 is considered a moderate relationship; 0.6-0.8 is a strong relationship; 0.8-0.9 represents a very strong relationship; and 1.0 conveys a "perfect" relationship. Refer to Table 3 to view these correlations.

The first correlation test examined the relationship between Skype use and attitudes in order to gather additional support for the findings in the focus group, in which we discovered that attitude is positively related to

Skype usage. With this in mind, a strong correlation between these two concepts was anticipated. Surprisingly, a correlation of 0.48 resulted, which is considered a significant, positive, and moderate ($r = 0.48$, $p<.01$).

The second correlation examined the relationship between Skype use and norms. Again, the focus group suggested that these two indices would be positively related. The result came out stronger than the first test, resulting in 0.57. Still, this value is considered to be a significant, positive, and moderate relationship ($r = 0.57$, $p< .01$).

The third correlation measured the relationship between attitudes and norms. The correlation had a significant, positive, and moderate result, but out of the three total correlations had the weakest relationship ($r = 0.46$, $p<.01$).

All of the correlations represented acceptable outcomes. They all had moderate correlations with significant and positive results, which implies that all of the individual concepts are related to one another. Because the variables also had significant and positive outcomes, the results included in the correlation table can be considered effective and applicable to the research.

The hypotheses were also supported by this data. The results suggested college students' opinions of Skype are based off of

predetermined attitudes and the students' intentions to use the program are

positively related to their peer's intent.

Data

Table 1.1: Individual Items

Concept	Items	Mean	Median	Mode	St. Dev.	Reliability
Skype Use	I use Skype to talk to close friends and family.	3.43	4	4	1.65	.79
	In the course of this past month, how often have you used Skype?	2.07	3	1	1.41	
	How often do you use Skype?	4.23	5	4	1.22	

Table 1.2

Concept	Items	Mean	Median	Mode	St. Dev.	Reliability
Attitude	Using a scale of 1-7, please indicate whether you feel that using Skype with your peers is useful or not useful. 1=not useful 7=useful.	4.77	5	5	1.58	.91
	Using a scale of 1-7, please indicate whether you feel that using Skype with your peers is helpful or unhelpful. 1=unhelpful 7=helpful.	4.69	6	5	1.55	
	Using a scale of 1-7, please indicate whether you feel that using Skype with your peers is productive or unproductive. 1=unproductive 7=productive.	4.43	6	4	1.55	

Table 1.3

Concept	Items	Mean	Median	Mode	St. Dev.	Reliability
Norms	It is expected of me that I use	2.41	2	2	1.23	.85

	Mean	Median	Mode	St. Dev.	
Skype to communicate with those close to me.					
It is expected of me that I use Skype when communicating with others who live far from where I do.	2.93	3	4	1.42	
It is expected of me that I use Skype to communicate with my friends and family when they are, or I am, in an international location.	3.23	3	4	1.54	

Table 2: Index Scores

Concept	Items	Mean	Median	Mode	St. Dev.	Reliability
Indices	Skype Use	9.73	10	10	1.78	.79 respectable
	Attitudes	13.9	14	12	4.33	.91 very good
	Norms	8.57	9	6	3.7	.85 very good

Table 3: Correlations

		Skype Use	Attitudes	Norms
Skype Use	Pearson Correlation Sig. (2-tailed) N	1.00 363	.48 .00 358	.57 .00 362
Attitudes	Pearson Correlation Sig. (2-tailed) N	.48 .00 358	1.00 359	.46 .00 358
Norms	Pearson Correlation Sig. (2-tailed) N	.57 .00 362	.46 .00 358	1.00 367

Final Analysis

Overall, the concepts have both respectable and very good reliabilities, deeming the results as dependable for the client to use. The results also revealed that most of the survey takers answered with agreement

to the provided statements. For instance, the statement "I use Skype to talk to close friends and family" had a mode of 4, which suggests that college students agree with this statement. As a whole, Skype use received a mode of 10 and attitudes received a 12 proposing that undergraduate students *do* use Skype and their attitudes and feelings towards Skype *are* positive. Norms on the other hand received the lowest mode of a 6, suggesting that college students disagreed with the questions regarding collective expectations and *do not* feel a social pressure to use Skype.

RECOMMENDATIONS

As discussed, we felt that it was necessary to conduct both primary and secondary research in order to learn how often college students use the program and understand their reasons for doing (or not doing) so. The SWOT and situation analysis allowed us to gather the knowledge of others so that we could more accurately form hypotheses from which to build our tests. The focus group directed open-ended questions to the target group, themselves in order to elicit innovative opinions and elaborate on pre-conceived ideas. Lastly, the on-line survey provided us with responses from a larger sample in order to increase generalizability.

The focus group revealed that students aren't using Skype because video conferencing is not a priority when communicating with family or friends. It is not that the students don't *like* Skype; it is simply that they don't *think of* Skype often, leading to our recommendation for the company. An idea straight from the focus group participants' mouths, Skype needs to advertise more through

> 1. Skype needs to advertise more to college students in order to increase repetition of the brand
> 2. These advertisements should include descriptions/demonstrations of key features such as Screen-Share and document sharing

online sources or by promoting at college campuses in order to increase

repetition of the brand to the college student target group. Furthermore, our

qualitative research revealed that many participants were not familiar with

the specific features of the program, such as Screen Share and document

sharing. Therefore, we also suggest that these features be emphasized in the

proposed advertisements in order to show the target group the added benefits

they will receive by using the program.

The qualitative data also exposed that many college students use

texting and phone calling more often than video chatting because it is more

convenient and allows for multitasking. In such a fast paced and

technological world, this was not

surprising. Thus, we recommend

you're your programming team

perfects the mobile Skype

application. Many of our focus

3. Expand the mobile application's functions to include features that appeal to owners of all types of cell phones.

group members have downloaded the app but then failed to find any

incentive to use it since they are unable to use video chat programs on their

phones. However, even those with this capability choose not to use the

Skype application. Therefore, we suggest Skype's mobile application

includes features that appeal to owners of all types of cell phones, and that

the company advertises the new features accordingly.

The new merger of Skype and Facebook provides opportunity to increase awareness of the Skype brand towards college students. Both the primary and secondary research supports the notion that the college student demographic frequently visits their Facebook accounts. The qualitative research exposed a problem, however, as many of the participants didn't know Skype was offered on Facebook and the few that had attempted to use the feature complained about malfunctions.

> 4. Fix any existing glitches in the Skype-for-Facebook program
> 5. Increase advertising on the Facebook page

Thus, we highly recommend that Skype fixes these glitches in the program, and subsequently increase advertising on Facebook. This will improve both consumer satisfaction and awareness among target consumers.

We also learned that male college students might feel uncomfortable chatting with other male friends, whereas females had no problem video conferencing with either sex. Additionally, the two couples

> 6. Prioritize advertisements to female college students over males.

participating in our study mentioned that the girlfriend was more likely to initiate Skype chats rather than the boyfriend. Therefore, we suggest targeting female students more than male students.

Lastly, the survey provided correlations that were not as strong as we had hoped or expected. However, the quantitative data is still useful for

> 7. Advertisements to family and friends of college students will increase the target audience's own usage of Skype

providing basic recommendations on how to increase Skype usage among college students. First, we learned that attitude and Skype use are significantly related which ultimately proves that college students will not use the program unless they hold a fairly positive attitude towards Skype. Secondly, the survey revealed that Skype use is also positively related to Norms, or the influence that peers/family has on the student. Thus, college students are more likely to use Skype if their friends and/or family utilize the program, too. Advertisements targeted towards the parents or siblings of college students will likely have a positive effect on the target group at hand.

FUTURE RESEARCH & LIMITATIONS

Although the research and the resulting analyses were thoughtfully planned and executed, they will not be enough to fully understand the college demographic and its decision to use Skype relatively infrequently. Future research will be necessary in order to achieve greater generalizability, decrease the margin of error, and discover additional insight from students outside of the University of Texas campus. The company will need to gather more quantitative and qualitative data to focus on popular video conferencing programs, including Skype and its competitors, in order to construct additional strategies to increase usage among college students. The company will need to identify the students that are using Skype on a regular basis, as our study did not find these individuals representing the ten percent of students that use the program 4-5 times a week. These students will be invaluable as they will provide the 'flip side of the coin' and may be able to provide new recommendations for improvement.

Additionally, our researchers are not experienced with programming or software troubleshooting, and cannot provide detailed recommendations for reported errors within the functionality of Skype. Surveys may be necessary to discover the problems that consumers are having with the program, and a programming team of experts will be more competent to

provide appropriate solutions.

Lastly, the research team cannot provide detailed advertising campaigns and strategies, although they will be necessary in order to effectively reach the goal of increase Skype use among the college student demographic. Thoughtfully planned and creative campaigns, copy, and artwork should be executed to reach the target audience, as previously recommended.

It is also important to note that participants in this study were solely students of The University of Texas at Austin. Future research may find that Skype is more popular with college students in different regions in the country, and additional measures will be needed to better develop generalizability in this study.

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APPENDIX A