

Assignment 2: Context Analysis

Latinas in STEM

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Introduction

According to the National Science Foundation Hispanic women constitute only 2% of the population of scientists and engineers working in science and engineering (National Science Foundation, 2013). This is one of the many driving forces which lead to the inception of this organization. This research report will discuss the purpose, goals, metrics, and measures taken to establish “Latinas in STEM” as an online community. Latinas in STEM is a non-profit organization founded in the summer of 2013 with the mission to “inspire and empower Latinas to pursue, thrive and advance in Science, Technology, Engineering & Mathematics (STEM) fields” (Latinas in STEM, n.d.). The five founders are former graduates of the Massachusetts Institute of Technology (MIT) and currently serve on the Board of Directors for Latinas in STEM. The founders of the organization are aware of the barriers facing Latinas in STEM fields especially in underserved communities and are working towards leveling the playing field. Such barriers to entry include lack of parental awareness, low outreach and few role models (Latinas in STEM, n.d.).

Latinas in STEM aims to inspire and empower Latinas to pursue and thrive in STEM fields via its online community and through a series of face-to-face workshops. Its efforts focus on three programs: K-12 outreach, college support, and professional development. The K-12 outreach program targets middle and high school students, especially in underserved communities, by exposing Latinas to role-models in STEM fields. One of their most popular programs is the STEM 101 Conference. The presenters of the STEM 101 Conference typically share their STEM journey via a lively panel discussion to expose both students and parents to real-world experiences. In addition, the students are typically provided with hands-on workshops that involve problem-solving in a collaborative setting. As part of the conference the

parents are also introduced to financial literacy sessions to better position themselves to support their daughters in order to thrive in STEM fields.

The college student support program offers mentorships, workshops, and presentations at conferences. The organization keeps college students abreast of STEM career information through their face-to face conferences, mentorships, newsletters, and social media outlets including Facebook and Twitter. Latinas in STEM also provides professional development to members and helps them network to become leaders in their communities. They also provide leadership opportunities and recognition in an effort to help Latinas achieve both their academic and career goals.

Purpose

The three watch-words which guide the mission of the Latinas in STEM online community are “*inspire, pursue, and thrive*” in the field of STEM. In an interview with one of the founding members, Jazlyn Carvajal, the researchers learned about many of the STEM-ulating activities that are used to attract young Latinas and spread awareness about academic opportunities for this underrepresented group. These young women along with their parents are encouraged to join conversations and review content via their online community. The students can disseminate this material with friends, teachers, and if the participants are high school and college students they can share information with like-minded peers. Students are also able to communicate with the board of directors or meet with them in person at conferences, as well as school or community events. Michelle White (2002) emphasizes that engaging participants in this manner through online communities increases the feelings “that are physically real” (p. 56). Another goal of the community is to invoke engagement and inform participants of an array of

information available including STEM scholarships, financial literacy and updates about pursuing STEM majors.

The Marketing and Public Relations component of the online community focuses on posting information about happenings in the local area, provides listings and alerts, and notifies participants of job opportunities. An interesting aspect of this function of the online community, aside from analyzing metrics, is to also post about challenges facing the Latinas in the STEM community. This online community is very active in the lives of Latina students through mentorship and designing leadership outreach programs which aim to assist these young women in improving their leadership skills and abilities. The community gives these young girls choices and avenues to pursue positive connections that contribute to improving their social and academic STEM relationships. The collegiate Latina women, who have benefited from mentorship opportunities, return as volunteers and they help to guide and communicate with K-12 students. Latinas in STEM is a vehicle that offers these young people a venue for social exchange, it is a virtual community in which they can seek emotional support that nurtures a learning environment for the Latino youth to find out what scholarship opportunities exist and learn about the tools and competencies needed for successful STEM study.

Goals and Measures Taken

The goals of the Latinas in STEM foundation are to encourage its twenty-five (25) members to “inspire young women to consider STEM careers; increase the number of Latina women pursuing STEM careers; and create a network that helps women in STEM thrive” (Latinas in STEM, n.d.). After the researchers explored the content on their website and conducted an interview with Kimberly Gonzales, it was gleaned that a specific component of the of the online community was to build their membership. The organization has authentic

followers; however, there is a need for additional members to get involved and participate actively within the community. It was not clear based on the interview what actions or measures would be taken to accomplish this goal. The interviewers did neglect to ask about it. A number of marketing campaigns and career fairs have been held, but based on the number of requests the Latinas in STEM leaders are not able to meet the demands, and more manpower/volunteers are needed to assist them with the attainment of the goal(s) they have set for the community.

Goals that are role-related are “influenced and controlled by the individuals attempting to achieve such goals” (Moskowitz, 2008, p.44). Based on the Latinas in STEM website, the following board roles have been established: Board Director, Director of Finance, Director of Administration, Director of K-12 Outreach, Director of College Programs, Director of Professional Programs, Director of Marketing and PR, and General Counsel (Latinas in STEM, n.d.). The names and positions of the board members can be viewed at the following URL: <http://www.latinasinstem.com/board-of-directors.html>. Even though this organization has clearly divided responsibilities well amongst the founders, it is believed by the researchers that they could benefit from devising a position for a membership secretary. This person should be charged with maintenance of the membership database and tasked with managing the selection, renewal or withdrawal of members. This individual should also be actively involved in organizing and promoting ways to grow the membership level or numbers.

The community sets annual goals that are time-bound and administrators are involved in organizing and executing soft-skills and technical workshops. They host college fairs and organize marketing campaigns, these occur from year-to-year. They partner with schools, colleges, and universities to reach participants and prospective members to launch STEM activities. Examples of the typical events that were done in the month of February alone can be

viewed from the electronic newsletter: <http://us8.campaign-archive2.com/?u=df755d42ed4e120f8644fc2cc&id=5149a2137d>

Using metrics, the Director of Marketing is able to measure or track visits and hits to their Twitter and Facebook accounts and determine the ratio of females to males. According to George Forrest (2016) one of the basic tenets of six sigma is “you cannot control what you do not measure”. Therefore, analyzing and effectively implementing metrics is critical to the success of Latinas in STEM in order to continually grow and expand their scope as an online community.

Metrics

The organization utilizes the metrics provided through their social networking management platform Hootsuite and their social networking sites, Twitter, Facebook and Instagram. MailChimp is also used for data collection and analysis. These metrics are presented to the Board of Directors regularly and to the membership at the All Member Meeting. Currently, the Latinas in STEM online community membership numbers are: 6,608 Twitter followers, 3,063 Facebook likes, 1,430 Instagram followers. According to the metrics provided by the Director of Marketing, Twitter has the largest online community member population with

31% male and 69% female (see Appendix A for gender breakdown). Figure 1 shows the demographic information of the followers broken down by region with California boasting the



Figure 1. Twitter followers by region 2015.

largest portion of members at 27%.

Latinas in STEM's Facebook followers have a similar breakdown by region in the United States with California having the most but Figure 2 also shows a number of online community members outside of the United States.

Country	Your Fans	City	Your Fans
United States of America	2,393	Los Angeles, CA	428
Puerto Rico	39	New York, NY	137
Mexico	25	San Jose, CA	71
Costa Rica	9	San Francisco, CA	68
India	8	Dallas, TX	68
Peru	7	Chicago, IL	44
Colombia	6	Houston, TX	38
Germany	4	Fresno, CA	38

Figure 2. Facebook followers by region 2015.

According to Ms. Gonzales, the data collected have driven decisions that are made for the online community (personal communication, March 25, 2016). For example, the larger portion of online members reside in California, therefore posts are scheduled based on Pacific time for the convenience of the community. Using data to drive decision making is in-line with Millington (2012), who asserts that data should be utilized to improve online community management. Latinas in STEM use data to not only drive decisions but to drive the content of their posts. Ms. Gonzales pays particular attention to the number of likes, Twitter retweets, and Facebook shares on a regular basis and Hootsuite provides metrics and analysis of online content. She also reads comments and has discerned the types of posting that reach the most people and she endeavors to provide that information to the community (personal communication, March 25, 2016).

Another aspect of tracking online community activity is comparing oneself to others to gauge success. According to Valdez-Perez (2015), benchmarking or comparing an organization to its peers helps an organization understand how they are doing, develop opportunities for improvement, and identify successes. Latinas in STEM uses similar non-profit online communities like the Society of Hispanic Professional Engineers and other traditional businesses

like Texas Instruments Calculators as benchmarks (see Appendix A for figures). These benchmarks help Ms. Gonzales “to see if our efforts are working or how does it (our efforts) compare to everybody else’s efforts” (personal communication, March 25, 2016). This commitment to metrics has helped Latinas in STEM to grow their online Twitter followers by 56% and Facebook likes by 40% in 2015 (see Appendix A for figures showing growth for 2015).

Recommendations and Conclusion

Due to the tireless efforts of the five founders and their unwavering devotion to the organization’s mission and vision Latinas in STEM has grown, continues to thrive and rivals similar online communities. Both Ms. Carvajal and Ms. Gonzales indicated in interviews that a goal for the organization is to grow their membership with the hope that more members will become active within the organization. Gaining critical mass is vital to the success of an online community (Kraut & Resnick, 2011). In particular, Ms. Gonzales would like to begin a committee in order to sustain and grow the online community with member support. A recommendation to help achieve this goal is for the organization to launch a membership drive. This membership drive can take several different forms and should appeal to possible members both intrinsic and extrinsic motivations as it would offer the rewarding experience of working towards an admirable mission and offer opportunities to participate in activities that add to a professional curriculum vitae (Kraut & Resnick, 2011).

Kraut and Resnick (2011) encourage interpersonal recruiting because people are more motivated by in-person connections and communications. Word-of-mouth recruiting to gain new members should be employed by Latinas in STEM at their many networking functions: STEM 101 Conferences, speaking engagements, professional conferences, and through member professional contacts. As the organization develops programs at the college level, such as

mentorships, student member chapters, and leadership programs, these students have the possibility to become active volunteer professional members due to their connection and relationship with Latinas in STEM. Upon graduation, student members and mentees should be contacted proactively and cordially invited to become a professional member. The online community should make information available to prospective members so that they can make an informed decision and the organization will gain a member who is committed to the goals and mission (Kraut & Resnick, 2011). The Latinas in STEM webpage provides the requirements of membership and a simple procedure to join. However, potential members may still be unclear of the benefits of membership or the crucial role they could possibly play in being a part of the Latinas in STEM mission; therefore, a webinar is recommended to provide possible members with a clearer understanding and build connections.

The inclusion of a Director of Membership would help the organization to focus efforts on the vital function of expanding the reach of the organization through new members. According to the Latinas in STEM webpage the requirements for membership are: “Believe in our mission and self-identify as a Latina with a STEM background or wants to be in STEM or STEM teacher” (Latinas in STEM, n.d.). It is the recommendation of the researchers that a tiered membership should be available for people who would like to join the organization and support the mission as committed members but may not meet the requirements. These “affiliate” members would not receive the same benefits as full members and would not represent Latinas in STEM at speaking engagements but may be able to contribute as active committee members in support of the membership. The Director of Membership would be able to regulate the policies regarding membership and provide a plan for member recruitment.

The more visible the online community becomes the more active the participants are and the more likely to gain newcomers. To gain increased visibility Latinas in STEM could pursue grant opportunities that include press coverage. As the online communities continue to grow, Latinas in STEM could ask their social media members to bring in their contacts or friends thereby making the community more valuable to that member (Kraut & Resnick, 2011).

Although, Latinas in STEM has only been in existence for a brief period, they have managed to increase their online community visibility by carving out a niche and a designing a scope that meets a need in society (Kraut & Resnick, 2011). The organization is working towards goals that will help them sustain their community for many years to come. The Latinas in STEM community has been designed to impact Hispanic women starting at an early age, from middle school through college, and into their careers. Eventually, the young women whose lives they have touched in the past three years will have the opportunity to become active members of the organization. Given time, Latinas in STEM will no longer face the challenge of recruiting committed members and will be able to create sustainability. Women will be seeking membership because of the positive impact that Latinas in STEM members have made in their lives. Such outcomes will be the greatest contributing factor to the success and sustainability of this online community, now and for the future.

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Appendix A
Latinas in STEM Metrics

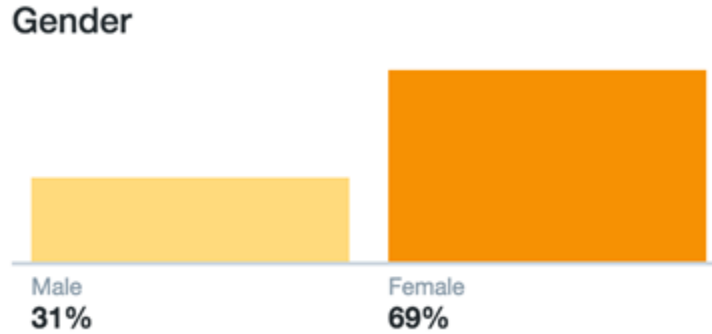


Figure 3. Twitter Followers by Gender 2015.




Page	Total Page Likes
1  Society of Women Engi...	39.5K 
2  SHPE National	2.9K
3  Women in Engineering ...	2.6K
YOU 4  Latinas in STEM	2.5K
Keep up with the Pages you watch	
5  DIY Girls	1.4K
6  LISTAS	378

Figure 4. Latinas in STEM Benchmark Comparisons for 2015

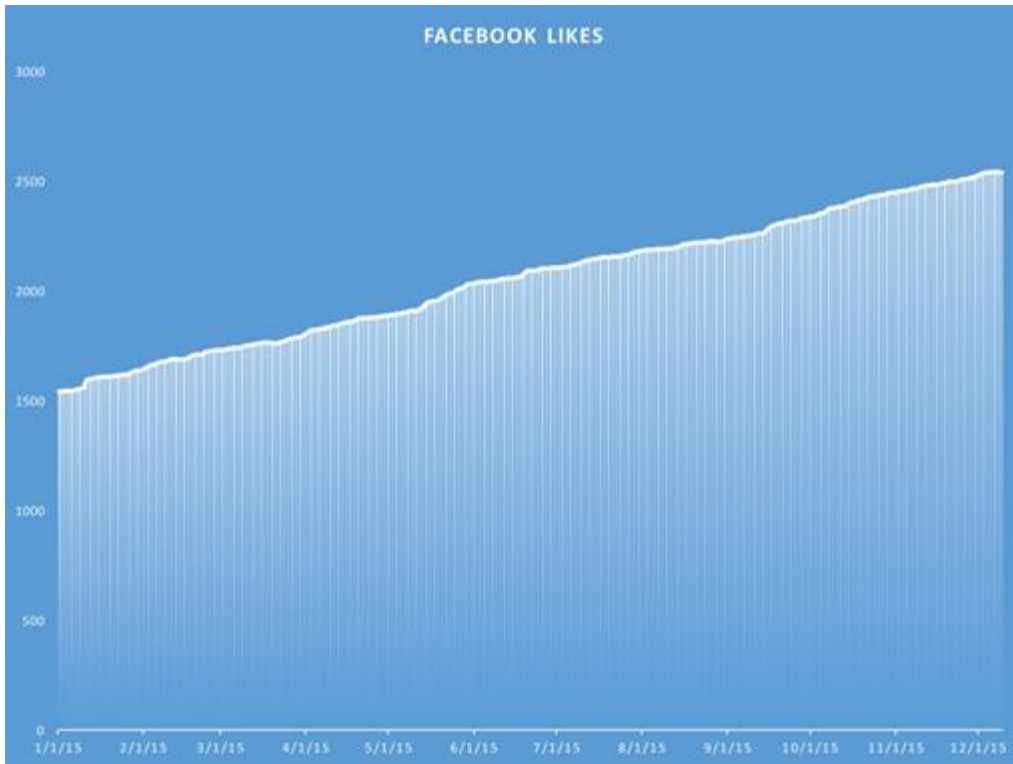


Figure 5. Growth in the Number of Facebook Page Likes in 2015

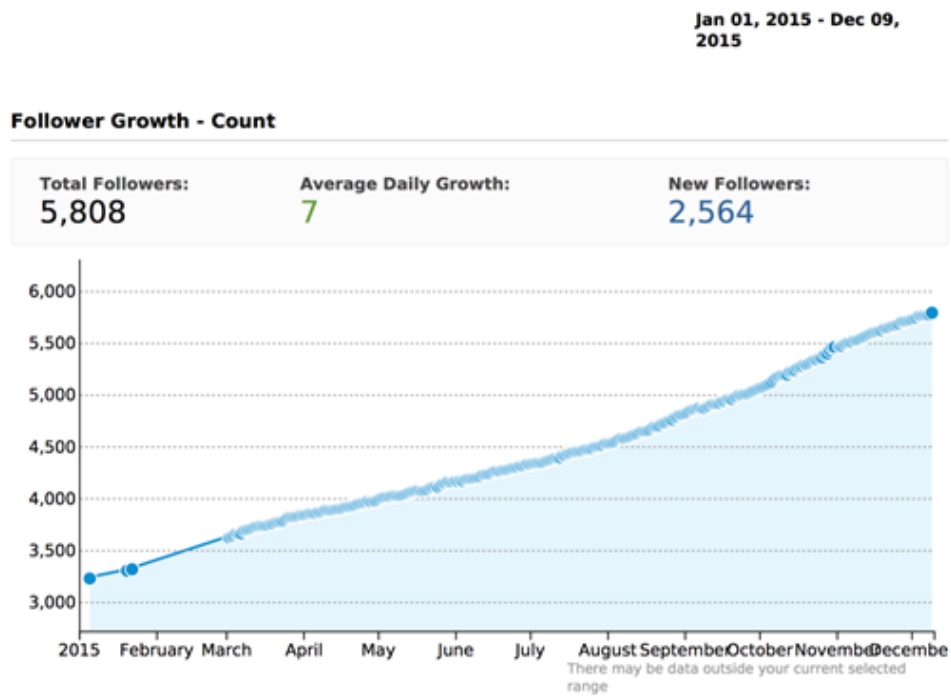


Figure 6. Growth in the Number of Twitter Followers in 2015

Appendix B

Transcription of Interview with Jazlyn Carvajal

Date: Monday, March 21, 2016

Time: 7:00 p.m.

Interviewee: Jazlyn Carvajal, Director of Finance for Latinas in STEM

Interviewers: Lori Dini, Martha Osei-Yaw and Antoinette Pinder-Darling

Jazlyn Carvajal, the Director of Finance for Latinas in STEM, was interviewed via a Google Hangout session in which she began by briefly describing her STEM journey at the Massachusetts Institute of Technology.

Martha Osei-Yaw: You can't do it alone. You need a support system.

Jazlyn Carvajal: You need the support. We've relied on each other even in our careers as we've navigated this whole...Being professionals, our families not always understanding...you know the demands and schedules. The expectation is okay, that's great. When are you getting married? When are you having kids? Or if you are married and have kids and you travel a lot there's also a lot of pressure from parents... you know and family members are like...You shouldn't be doing that. As a woman you need to be home more often.

It's difficult. It's one thing that you want to do this for your career for your own advancement but then you have to deal with those pressures from home. It's a good thing that we all have each other because we can understand and still motivate each other to keep moving forward.

Martha Osei-Yaw: I don't think anyone understands this unless you are going through it. The craziness of...I have a project, I have a paper, I have this, I have that...Only we understand that language, that commonality.

So, one of the courses we are taking has to do with building online communities. We thought it would be ideal to select Latinas in STEM because you do have the Twitter, the Instagram, and Facebook. We had discussed it and we thought it was so great that you were actually going to be at GIT (referring to the Girls in Technology Symposium 2016) and the three of us (referring to the researchers) were going to be there, as well.

So you put the name to a face. It's not just this online organization in cyberspace. You're there in the flesh and so we thought...Why not select your organization? We were excited...so thank you for giving us a chance to ask you a couple of questions.

Before I do, I want your permission. I wanted to...we need to transcribe conversations. Is it okay if I record this for the purposes of being able to transcribe?

Jazlyn Carvajal: Yes.

Martha Osei-Yaw: So that's what we're going to use it for because we need artifacts or anecdotes on that. I'm going to ask you a couple of questions. Lori you can jump in. Antoinette you can jump in. Feel free.

One of the things that we need to know little bit more about is.... What is the organization seeking to accomplish through their online community?

Jazlyn Carvajal: Um...engage...engage members. We want to engage parents. We want to engage students in the conversation regarding STEM. We also want to inform them of what's out there. If you noticed, we do post articles, scholarships, internship opportunities anything that is STEM related that would be beneficial to our followers.

It's a way to inform. One thing that in our travels...every time we speak on panels there are students, educators, and parents that are constantly asking for resources and advice. The best advice that I give them is follow us. Follow us...follow the conversation on Twitter, on Facebook, on Instagram. Join our newsletter because there's a lot of information out there that can be helpful.

Martha Osei-Yaw: You mentioned that you post three times a day.

Jazlyn Carvajal: On Twitter.

Martha Osei-Yaw: Is that number a magic number for some reason? Why three? Why not two? Why not one?

Jazlyn Carvajal: That's a good question. I can get back to you on that one? Kim (referring to Kimberly Gonzales, the Director of Marketing and PR) probably has the...Kim, who is our Director of Marketing has done the research on what are the best times to post. How often to post...

Martha Osei-Yaw: Okay.

Jazlyn Carvajal: In Twitter, with my business, I actually post twice a day for my clients. You have to do best practices.

Martha Osei-Yaw: Okay.

Jazlyn Carvajal: There are certain days of the week that you want to post and at certain times. I can ask Kim to provide some data in terms of what are the interactions if that is something that you want. If you want to see some metrics.

Martha Osei-Yaw: She reached out to me today. We're going to set up a call for Friday to really focus more on the metrics part of it because that's a component that we need to really learn more about.

I know there are certain days, certain times. I know for the event on Saturday my daughter was helping us out (referring to Twitter). I think we did more than three Twitter posts that day.

Jazlyn Carvajal: You go heavy. There are days that you want to go heavy. On Saturday, it would have counted as the equivalent of a Twitter party. If we look at the statistics from your account, our account using the hashtag. If you looked at those... You can pull up the metrics from Saturday and I'm sure they were probably off the chart than on a regular day just because you have so many interactions amongst people.

I retweeted everything that you posted. I retweeted anything anyone used for Latinas in STEM 101. Our Latinas in STEM also did the same thing. If you have multiple followers doing that now is capturing those impressions. That's making an impression on them.

The three a day is more of a consistent basis. There are going to be days that you can really get a boost and boost your following and boost your presence online by doing a Twitter party or posting about an event and using the hashtag.

Martha Osei-Yaw: I know Erika (referring to her own daughter), she was going to post something in the car and she said, "No." "What time is it?" "It's not 7 o'clock." "It needs to be 7 o'clock." "At 7:00 o'clock that's when we're going to get..." She was very focused on that part. I can tell you that I doubled my Twitter followers in two days or so with all of this stuff.

Jazlyn Carvajal: (Chuckle). Nice!

Martha Osei-Yaw: I had 24 followers and now I have about 50 with this whole Latinas in STEM. I thought, wow! It is fun just seeing how that's working out.

We'll talk a little bit more to Kim about the metrics. I had asked her if she had any annual reports that we could look at because we have to show some evidence of the metrics that we're looking at to measure the online community.

Lori Dini: I just have a quick question. Do you guys do live postings because you mentioned that?

Jazlyn Carvajal: We do. We do. We try to do live postings if anyone of us are at an event. So the Girls in Technology, that morning I made sure to snap a picture and sent it. There are a few girls that are probably better. If they are on a panel, they will take a picture of the crowd and post it.

I tend to not forget about doing that. If I'm on a panel, I'll just focus on the panel. I'll take a picture usually beforehand or during at some point. You know, whatever the speakers are saying you'll try to quote them or comment about what is sent throughout the day. And again it is to engage... you know... and show here we are going to all of these conferences that we've put together. Conferences that are being put together nationwide... big and small. We're exposing this to our followers. Which the majority are... we are hoping that every Latina in STEM 101 Conference all of those students start following us. Right? And if they are following us they come from these underserved communities and now they are getting informed based upon these events that are happening. Conversations that are happening... links to articles or even being informed about... you know someone who is in the midst of this. Whether it is someone famous,

an educator ...you know...a famous scientist or an engineer that's done some amazing things. By us engaging in social media in a live manner we're getting to inform our followers.

Martha Osei-Yaw: I would also say, not only do you engage them with the Twitter and all of that stuff...you actually do community outreach as an extension. You jump off the page.

Jazlyn Carvajal: Yeah.

Martha Osei-Yaw: And actually you're just not cyberspace. You are there...Right?

Jazlyn Carvajal: Yea. Right. Right.

Martha Osei-Yaw: That is a nice element that people can see in the flesh. Many of you serve as mentors and role models.

Jazlyn Carvajal: Mm...hmm...Right...Right... I mean...

One thing that I do...I have automatic...I have my Twitter account automatically retweeting everything that Latinas in STEM tweets. And I have it also linked to my Facebook so whenever there is anything I post on Twitter or retweet on twitter it automatically posts onto my Facebook page. Now, I may not often...I get constant likes and retweets...shares and likes...It may not be in the hundreds or thousands...a few here and there... but people are paying attention.

And I get that in my day to day when people approach me. Oh, I read that article that you posted. Sometimes, I don't even know that I posted it because of that happening automatically. But, it'll start a conversation. You know it's amazing what you guys are doing with Latinas in STEM. What can we do? How can I get more informed? I need to bring my daughter to one of your events. When are you having something? Even if they're not engaging with me on social media when they see me in person they'll let me know I've been watching.

Martha Osei-Yaw: This is a question about metrics. We may have spoken a little bit about turnaround time. Do people reach out to you with a question or with a concern or something and if so...What's the turnaround time?

Jazlyn Carvajal: That something that we've been working on. We haven't been great at that. And something that we ended up doing at the end of last year, at the end of 2015, we tried to make sure we responded to all of these pending messages, emails, Facebook. And it was mostly because last year we didn't have someone dedicated to our social media. And now that we have Kim. Kim has been trying to build up a committee with members to try to be responsive. We also have Ceci who is also trying help and be responsive to our followers. If it's a question they can answer they will forward it to one of the directors and try to answer it.

But our goal is to at least respond within two days. At least, hey... we received your message. Give me "x" amount of time. You know, we're trying to keep it within a week to respond, for example, if someone sends us an email about a scholarship and I just couldn't respond to it right away I would at least acknowledge the email. I received it, give me about a week and I'll get back to you.

Martha Osei-Yaw: Is that your typical habit?

Jazlyn Carvajal: That's the habit that we are trying to build. I can't say for sure that we've been doing that. I think Kim might be able to give you a better answer on that. In an instant... I actually quoted that one...but I actually had a situation similar to that earlier this year with a gentleman that wanted to help us with fundraising. And I had to respond, I received your message, I would love to talk to you. Give me some time. And we both actually...Kim and I...And he was like...I want to talk to you right now. We said, we're volunteers. We work full time jobs. And you're contacting us...We want to talk to you and we were able to actually schedule some time with him to talk to him. And we get that a lot where people just want to grab us and say let's work right now. And there's this excitement that's great. But, we've been trying to be realistic with our responses and the time that we're able to do things and respond.

Martha Osei-Yaw: And...What are some of the typical questions that you might get when someone does reach out to you? So scholarship...

Jazlyn Carvajal: Scholarships and internships. I think the majority is...When are you coming to our town? What are you doing? When can you come to our town? STEM 101 Conferences...after school programs. We want you to keynote, keynote talk, a panelist. That seems to be...people want us there. They're looking for us to go speak. That's predominately the request we get.

Martha Osei-Yaw: That gives us a better understanding because I wasn't sure the types of questions you would get.

In terms of customer satisfaction, can you see any connection with that? Do you see any customer satisfaction?

Jazlyn Carvajal: I haven't heard of anything negative feedback. I don't think Kim has either. This is a good question...you may want to pose it for Kim. If she has seen anything in her emails. But in general, what she has mentioned in our board meetings is that in general it's exciting to see people's feedback.

A good example is that email that you forwarded to us this weekend. And even from before the conference, Maribel even quoted this at the conference where a parent was so excited and thankful that we were coming to Jersey City. That seems to be in general the type of response that we get. "Wow!" "Thank you so much!" "We're so happy that you were here." That seems to be about the general response.

Martha Osei-Yaw: Talk a little bit about lurkers. Are you familiar with that?

Jazlyn Carvajal: Is that like trolls?

Martha Osei-Yaw: If you have conversations...Do you have blogs and things like that?

Jazlyn Carvajal: No, we haven't had any blogs. I do see a lot on Facebook...And again, I don't know if it falls under lurker, or troll or what exactly is the right definition of it is. I remember at some point there was this account from Mexico that was about women...scantly clad women. They kept posting on our Facebook page to follow them. And it could have been some sort of robot thing. I think we just kept deleting it. At the time, Diana was a handling the account.

Martha Osei-Yaw: A lurker is more of...in this respect...would be more about the community of practice. That you have these followers that are in the conversation constantly but then then they are lurkers that might stay back. They may not be in that conversation but that they're stepping back and taking a look at the conversations that are happening on your site and learning from that and bringing that back.

Jazlyn Carvajal: And I think that does happen. And the only reason, and that's from personal experience, that's where I guess I touched on that before where people may not necessarily comment or like on what we post. You have no idea, until you see it personally and they mention it. "I saw this and I got this great idea for something that was posted on the Latinas in STEM Facebook page."

We started with Dallas, a private Facebook group for educators. In Dallas we tested out an educator roundtable. It was essentially during the STEM 101 Conference. It was an opportunity because a lot of educators want to attend our conference but they're not a parent, and they're not a facilitator. But they want to be there and know...What can they do? Right? Or they're really interested in STEM and they want to be more involved or create more programming in their district. So we created this separate workshop in Dallas to test it out and it went well, from there, what we created was this Facebook private group. Very few people actually post to it, but from I hear from Kim, the group itself actually interacts on a daily basis. They interact on a daily basis live...not necessarily in the group. I guess the people that post to it are few and far in between. I don't know if that would count as lurking. People that are kind of like watching this group.

Martha Osei-Yaw: Right. Exactly.

Jazlyn Carvajal: They may not be commenting or sharing but they are interacting in person.

Martha Osei-Yaw: I'm wondering...And Lori and Antoinette...you can jump in at any time. I'm wondering what goals...If you had something to change, to aspire, to work towards with your online community what would that be? What is something that you could say I would love to see X, Y and Z? Some goals? Something that you see in the future.

Jazlyn Carvajal: A couple of things that we've talked about that we have in the pipeline...in the works and that is blogging. We want to create a blog and this is with our professional members. Diana is trying to work with getting some professional members to blog. You know, whether it's talking about experiences and you know advice. And I know with Maribel at K-12, she'd like to fill in once in a while...like you know...whether it's having a guest blogger come in and talk about their experiences whether it's like a parent, as a teacher. Talking about maybe... we tried out a new curriculum or a new project and how that worked out.

Then again, we also want to highlight our members. We started that on our website where you can see our members. Last year we did a play on woman crush Wednesday. What we highlighted are women...our members, and we did an interview and highlighted them and we posted them all over social media and put it on our website. We kind of want to revive that and continue that as a way to highlight... these are influencers. These are women to look up to that are followers to see who they are. Cause mostly it's been the board members that have been in the spotlight. We really want to give other people the time to be spotlighted. It's not just us, we're not the only Latinas in STEM. There are many more of us. That goal is that 2% that currently exists, they should all be members. They should all be highlighted and people should know who every one of us are. You know.

Martha Osei-Yaw: What would it take to make that happen?

Jazlyn Carvajal: It's getting members. Getting members and getting people excited and to be part of it...to do it.

Martha Osei-Yaw: Don't you have enough members now?

Jazlyn Carvajal: What's that?

Martha Osei-Yaw: Don't you have enough members now?

Jazlyn Carvajal: We don't. Personally, I don't think we have enough members. We're at about 24 registered members. I think we had more before that. To me...and we've had this conversation before. Actually, Diana is our Director of both Professional and College Members to try to get them engaged. What she's done is to try to reach out to them via email. She wants to start Google Hangouts like this during office hours. Ask a director a question. Let's sit down, let's have a conversation. She wants to do those once a month. The other part of it is we need to have more interactions live...get together. And because we are nationwide and it's kind of like we're our own little silos. We also have the work for Latinas in STEM and then we have to try and get together. It gets overwhelming.

Martha Osei-Yaw: And then you have people wanting you to go to their school. (Chuckles).

Jazlyn Carvajal: Yes. Yes. Yes. We're getting pulled in many directions. We have a lot of goals and are getting pulled in many directions. But, you know, I think that for me, I can identify at least 10 to 15 women living in this region they're interested in being part of Latinas in STEM and engaging. They'll come to our conference. We had a few at the conference in Jersey City. It's our role to now follow up with them.

You know...and touch base with them. And it's not via email or social media. It has to be personal...you know because that's the support. That's what we respond to as women. We respond to that personal touch. That let's go out to eat afterwards and talk. Yes, we just did this great conference and let's chat. Let's talk about how you are doing. How is life?

Martha Osei-Yaw: And it's interesting that you said that. So, one of the members that volunteered...Anabel. Anabel Forte. I don't know if you had a chance to meet her. She was at the conference.

Jazlyn Carvajal: Yes. Yes. I did.

Martha Osei-Yaw: She is #amazing too and she runs the CoderDojo in Ridgefield Park.

Jazlyn Carvajal: She's really sweet.

Martha Osei-Yaw: Yes, she's really sweet. When we were having lunch she said, "Yeah, I want to be a member of Latinas in STEM." And her husband said, "Well you didn't go to MIT." "So, I don't think you can be a member of Latinas in STEM."

All: (Chuckle).

Martha Osei-Yaw: She said, "No, I found out." "You can be a member of Latinas in STEM even if I didn't go to MIT." So she was really excited. That's someone that you can keep in mind. She left there and she wanted to be a member of Latinas in STEM. I thought the same thing. I don't know what the membership requirements are but I thought that you had to be from MIT to be a Latina in STEM.

Jazlyn Carvajal: No. No. You have to have a STEM background. You have to identify as Latina. Have a STEM background at some point or the other. Whether you studied in a STEM field or you work in STEM field. And that's essentially it for a professional membership. A professional membership is \$50.00. The college membership is \$25 or \$35. I forget what it is.

Antoinette Pinder-Darling: I have a question Martha. Can you hear me?

Martha Osei-Yaw: Yes.

Antoinette Pinder-Darling: Jazlyn, I visited the site very briefly. I saw some content...some posters. Is there a balance between what you place up as content and what is done to stimulate conversation? Would you say that it's 50/50? 70/30? How would you categorize?

Jazlyn Carvajal: I'm sorry...So, you're saying the content that we post on our website, if it has been driven by the conversations that we have?

Antoinette Pinder-Darling: Exactly.

Jazlyn Carvajal: I want to say...yes, we highlight the members. And yes to even the membership process. Our membership process was much more rigorous when we first started and we did away with that because we got feedback from members and people who thought about becoming members. And...they said, "You know what?" "This is too much." And so...and it also hurt us because obviously we weren't getting members and people interested. Obviously, we need members. We are volunteers of the board. We need members to help us out and fulfill our mission and to fulfill the goals that we have.

So that is one portion that we did end up changing when we revised this website. The website was just revamped in the fall. Kim, myself and Diana worked on it. Something we want to add to the conversation is a resource page. A resource page for K-12 and college. At the K-12 level this will be a resource for parents and educators to find activities...events...tips...just resources where people can just go to find resources on STEM activities encouraging kids to pursue STEM fields.

With the college students, we're looking again, at scholarships and it's already content that we're posting via social media. We'd like to start collecting it and create a resource page you know scholarships where you know by date these are coming up. Scholarships that come up every year. These are the dates. Who's looking for interns? So that something that's a goal of ours and that's based on feedback that we've received everywhere we go.

Martha Osei-Yaw: Lori, did you want to add anything?

Lori Dini: I kind of just wanted to ask...Do you have different goals for your different social media accounts. Is there a difference between say Twitter or Facebook or Instagram? Or...Is it that you just want to kind of just get your message out there and educate?

Jazlyn Carvajal: I think that's a better question for Kim. I think in general it's based on...Cause each social media has a different following and interaction. Instagram is pictures. So they want to see pictures. Either us doing some cool stuff or some activities. The kids. The kids playing...That sort of thing.

Twitter is sharing news. The 120 characters that's all you have. You know what? Let's share links. Let's share news. Quick bytes.

And Facebook you have a little more to share. I do believe we have a bigger following on Twitter than Facebook. And Instagram is still being built up.

Martha Osei-Yaw: Does anyone else have any questions? Do you any questions for us Jazlyn?

Jazlyn Carvajal: Um...No. (Chuckle). This was really cool...I'm excited to see...Are you guys planning to come back and give us feedback or advice?

Antoinette Pinder-Darling: I kind of have a question. No, I think she may have only answer it partially. But the follow up that I had is probably a question for Kim. It should be directed at Kim.

Jazlyn Carvajal: Okay.

Antoinette Pinder-Darling: I'll wait until that session.

Martha Osei-Yaw: Part of our assignment is to make some recommendations and we will share them with you.

Jazlyn Carvajal: Right.

Martha Osei-Yaw: Just the whole blogging thing would be great. Like you said you wanted to do. I feel that increasing the membership. That would be a great key. What about the interns? You brought two interns...Jacqueline and Dayrene.

Jazlyn Carvajal: So Jackie and Dayrene are college members. You probably heard intern because Dayrene was my intern. Dayrene and Diana, who wasn't there on Saturday were two students when we did the summer program in Union City in the summer of 2014. We had a great group of students from all local colleges here in northern New Jersey. I needed interns, I needed help and I said to them, listen I can pay you on a per project basis if you want to be my interns. You'll get my guidance. And Dayrene has actually traveled with me to several STEM 101 Conferences. I brought her to Dallas. I brought her to San Francisco. And obviously she helped us out in Jersey City. So, she's been great. Diana helped out a lot. She helped out in the Hoboken conference. She graduated from Stevens and now she's working full time in Texas.

Martha Osei-Yaw: How open are you to having interns? Are you actively recruiting interns?

Jazlyn Carvajal: I would love to have interns. That's one of my goals. It's something that I'm working out with the Statewide Hispanic Chamber of Commerce is... We want to test out having interns that can work out of their offices. That's where they'll have their office space. I'm not working here. I'm working for their offices and they can be interns for Latinas in STEM. They can get paid a small stipend or an hourly rate. And then, out of that, the benefit they get is this amazing network of woman that can serve as role models and mentors. They can really help us with the work that we are trying to accomplish.

Martha Osei-Yaw: That sums up the questions that I had. Lori and Antoinette...anything else?

Lori Dini: No, I think we covered everything.

Antoinette Pinder-Darling: I think we answered most of the questions. I think that Jazlyn touched on something that I was going to ask about mentorship. I think I have a follow up to that. Have you had them join as a result of the two ladies that you mentored? Were they influential in becoming members of the online community?

Jazlyn Carvajal: Yes, Dayrene is great in terms of recruiting people. Suzette Lee... Diana is the one who made that connection. It is helpful in terms of bringing in new members...people that want to volunteer to work with our organization. Mentoring these women has helped to bring more members.

Martha Osei-Yaw: That's good to know. Anyone else?

Antoinette Pinder Darling: That's it. I think she covered every question I had.

Martha Osei-Yaw: Jazlyn, thank you so much. We really appreciate it because without making these connections and having these conversations we really wouldn't know the behind the scenes...under the hood of all of this. Thank you for taking the time. I know you wear many hats.

Jazlyn Carvajal: Yes.

Martha Osei-Yaw: You're very busy. Thank you so much!

Jazlyn Carvajal: Yea. (Chuckle). Absolutely. You guys were phenomenal! Thank you so much. Saturday was great! Saturday was great and I was really blown away by the way you guys took ownership and really put this whole event together.

Martha Osei-Yaw: It was heart and soul.

Jazlyn Carvajal: You can tell.

Martha Osei-Yaw: These ladies in Latinas in STEM. They are...When we were talking it just clicked. What about customer satisfaction? And I'm not even seeing myself as a customer.

Jazlyn Carvajal: Yea. That's right.

Martha Osei-Yaw: Technically, I was a customer.

Jazlyn Carvajal: You were.

Martha Osei-Yaw: The emails...I would send an email and within a little while there was a response. I felt horrible. I asked Maribel if she could make some edits to the program and it was like...boom.

One day she said, "Let me put my children to bed." It was 1:00 a.m. when it (referring to the email) came. I thought...wow. We knew that these women came with high expectations of themselves. And these women, I tell you. Lori and Antoinette, they are powerhouses. I thought, oh no. We need to be on top of our game to compete. To be at their level. I just wanted to make sure that we were paying close attention to detail and all that stuff. You guys were amazing and everyone was talking about it today.

Jazlyn Carvajal: Aww...

Martha Osei-Yaw: Thank for the interview. We appreciate it and yes we will touch base soon.

Jazlyn Carvajal: Okay. Sounds good.

All: Thank you!

Appendix C

Transcription of Interview with Kimberly Gonzalez

Date: Friday, March 25, 2016

Time: 11:00 a.m.

Interviewee: Kimberly Gonzales, Director of Marketing/PR for Latinas in STEM

Interviewers: Lori Dini, Martha Osei-Yaw and Antoinette Pinder-Darling

Martha Osei-Yaw: Tell us a little bit about yourself.

Kim Gonzales: For Latinas in STEM, I am the marketing board member. Anything with social media that's me. So when I'm always doing what I'm supposed to be doing which is not currently right now...but...because I'm crazy (referring to her workload)...I populate our Hootsuite account with posts for a week's worth of content. So, I have a million Google alerts. I can actually share my screen with you and show you all of the Google alerts.

Martha Osei-Yaw: I know our professor was talking to us about Dedoose. I don't know if you are familiar with Dedoose. I guess it just helps you to gather information and data. So what's the actual software that you use to manage all of this...to figure this out?

Kim Gonzales: I just use Hootsuite just for postings. They also gather metrics data for us, as well. They do have a section where they can get content for you but what I found is that they're not very good for what we would need it for.

Martha Osei-Yaw: And what is that?

Kim Gonzales: So you can put in keywords that they follow and then they'll tell you if someone posted about it. I found that it's not the best for us so instead I use the Google alerts. So a little bit of me, I have a Google alert for STEM, coding, women in computer science, diversity, women in engineering, women in technology, and women in science and... the like... Latinas in STEM. Then I have one for each of us, as well, in case an article is written about one of us that we don't know about.

I also followed the *Broadsheet* which is a daily newsletter about women just like cool things women are doing...like powerful women or things related to women. I found that to be very helpful. Then I have from school... I'm part of our mailing list from MIT. I was computer science...I'm still part of that mailing list so I still get all the jobs and internship posting which really helps. I can share it to our network, as well, and that doesn't include things that people send me.

Just like random emails or things that I see myself online. I follow quite a few people that I think post a lot of great content, as well. Just like random emails or things that I see myself online. If I like something, I post it on my personal account and then retweet from the Latinas in STEM account.

Martha Osei-Yaw: So, I'm wondering what is Latinas in STEM, from your perspective, seeking to accomplish via its online community?

Kim Gonzales: I think awareness...awareness and then...and also spreading information. I think a lot of the articles that I post are about things that are going wrong or that we're still not there and I think that is very empowering. And the ones that do the best that get the most shares are kind of like that in that sense. You know... people are like... "Man this is still not working." "We need to keep doing it as like a battle cry kind of thing." I also want to share opportunities. I am fortunate to part of this MIT posting and I want to share with other people.

Martha Osei-Yaw: What are some of the actions you have taken to accomplish these goals? So, you mentioned the listing, the alerts, giving information that is helpful. Is there something else that you think that you've done to accomplish your goals?

Kimberly Gonzales: I mean we've...last month we had a meme week and so we did the engineers campaign in which we posted a meme a day. That was insanely successful. It was probably our most successful marketing campaign. Yea, that one was awesome! We had so many people share all those memes. One of them got shared over 20,000 times or something. It was amazing just on Facebook plus Twitter and then Instagram.

Lori Dini: That was going to be my question. Was it on all of them?

Kimberly Gonzales: That was just on Facebook. Every social media platform has a different strategy. On Facebook you can't post as much as you do on Twitter. People will miss it. I kind of pick the best of what I found for Twitter and then post that on Facebook. Two articles, maybe three a day if I'm really excited about these three articles. I try to have at least one when I'm on track.

And then on Twitter I want at least six posts a day. But if you have a week where there is so much information like International Women's Day or Engineer's Week or whatever...the articles build up. They post a lot more so a lot more content is available. So, I'll post up to ten times a day not including anything that I would retweet. Then on Instagram...that's something that is a little bit harder for me to do... but, you know... posting pictures. Especially during the event, the STEM 101 Conference, I try to at least keep it active with some pictures. I still don't know if we've gotten...if we've figured out that whole Instagram strategy going on.

Antoinette Pinder-Darling: Actually, Martha, with this project I ended up having to start up a Twitter membership. I'm more of a Facebook lover. I don't know. I was not sold on Twitter. I joined for this project.

Martha Osei-Yaw: Oh...okay. Make sure that you "like" Latinas in STEM.

Antoinette Pinder-Darling: I will. (Chuckle).

Martha Osei-Yaw: So they can get more followers. (Chuckle).

Martha Osei-Yaw: In terms of metrics, on your January 2015 Board Presentation, I noticed that you were tracking Black Girls Code. In December of 2014, Black Girls Code had over 27,000 followers. Have you done research to explore what they have done to gain those followers?

Kimberly Gonzales: Well, I mean... The biggest thing is that they exploded once they won that Google grant and they became crazy famous and I think I think they're...that definitely helped them. I have been tracking and they do not post as often as we do and I think a lot of it has to do with they're a lot more famous than us. But I do like to track them to see how much they are posting.

Martha Osei-Yaw: I first learned about Black Girls Code so I was following them. I know they had received a Passion Project or a grant from American Express a couple of years back so I was following them and then I learned about Latinas in STEM. But, it was so interesting when I was looking at your metrics, I thought...oh, wow... they look at Black Girls Code too and compare themselves to similar or other organizations.

Kimberly Gonzales: Yea, it's good to have a comparison there. It definitely helps to see if our efforts are working. Or how does it compare to everybody else's efforts. This week they only posted four things and they don't post very much on Facebook.

On Twitter it's a different story. They do post a lot more from each of their workshops since they have so many now.

We have 3,000 followers on Facebook and SHPE (referring to the Society of Hispanic Professional Engineers) has 3,100. I think they're a much bigger organization so I'm glad that we could do that. I think that it just goes to the content that we share. Every time someone shares an article that they found...that they really like on Facebook...that it really resonated with them...we get more followers. It helps me because of all the comments. It's a lot of work to do this and it helps me to see their comments. "This is exciting!" Or "Hey, I applied to all of these internships."

Or "I felt this too." I posted an article about how engineers were mistaken for janitors at their offices. There were just so many comments about women who were experiencing the same exact thing. I love posting articles like that...that make you "feel something and also someone says, that's me too!"

Martha Osei-Yaw: Were you going to say something Lori?

Lori Dini: No, I just said that people can connect to it.

Martha Osei-Yaw: And I'm wondering...In terms of social media, where do you think you've been gaining the most traction?

Kimberly Gonzales: On Twitter we get like seven to eight people a day. We've been getting a lot of followers there.

Martha Osei-Yaw: Is that a good number? I did see that number. I didn't know if that was a good number...six, seven followers a day...Is that a good number for you to aspire to? The measure?

Kimberly Gonzales: If we wanted to spend money on getting an outside firm to run our services then...you know...that would not be a good number maybe. I like to compare us to my corporate account, TI Calculators, and we are now surpassing them with followers and they have an outside firm that runs our PR company. But they have different strategies. They have authentic followers. That's a really good plan.

Having follower for the sake of having followers also isn't good because people are not interacting with you. You can buy followers right. They're not very expensive. You can buy lots of followers...or you can... I know there's another PR Firm, another company and they go and they follow other people because when you see someone follows you, you check them out and follow them. Every day they follow a new group of whatever the Twitter limit. We don't have money for that. For what we're doing now...I think we can definitely do more with...especially with Facebook or their marketing campaigns, but for what I can handle I think we're good.

Martha Osei-Yaw: So, it's more grassroots?

Kimberly Gonzales: Yes, and I think if we could get a committee together to help...but I think once we finally get this committee together we can do more marketing campaigns and more memes which were not too much extra work but involved creativity and actually creating them and...like a plan about when and how to post them. And if we had more support. If my committee can finally get started and I think we could do more and then gain more followers.

Martha Osei-Yaw: I remember seeing one of the pictures of Dayrene. Is that one of the meme that you are referring to?

Kimberly Gonzales: Yes,

Martha Osei-Yaw: That was exciting!

Kimberly Gonzales: People loved it. I'll look at it right on my phone. The one on Twitter, that one had 6,000 impressions which is pretty great...for us... for a tweet.

Martha Osei-Yaw: So, I'm wondering...you have a very strong following in California. What has been...I was looking at the breakdown of the countries and the states within the United States. You have a very strong following in California. What has been the driving force to that success?

Kimberly Gonzales: I think it's just because that's where we got started and our initial followers are from California. That's what I think is the case. Every time we send out a newsletter, there's a lot of California there too. But yeah, I don't exactly know. But, because of that I have changed the times that we post things to be in line with more of California time and

less Eastern time because they are primarily followers. So, I want stuff popping up primarily when they are online.

Martha Osei-Yaw: We had an event at our school this past Saturday and then after taking a look at all your data...I was like geez. I should have had a sign there that said, "Like us on Facebook."

So, I had #STEM101 and #Latinas in STEM. I'm learning all about this process to be quite frank with you. Do you think having something like that would benefit you when you do all these events? You have an upcoming event on April 30th in LA. Would that help you to gain more followers and help the movement?

Kimberly Gonzales: I think so. So, in previous conferences we've had a little bit more tweeting using the hashtag. I think this time, last Saturday...that one there was less so. I saw you posting and another person. Then not very many other people using the hashtag.

So, what I would normally do is... I would go and retweet and like and make sure that we interacted with them. The same thing I'm on Instagram. Facebook is different right and I can't see people posts. They're all private. But that didn't happen as much this time.

Martha Osei-Yaw: The community that we're in, at least in Jersey City, where I work...some of the parents didn't even have the technology at home to register. I personally registered a good number of the students and parents. They would actually come into the school and say, "I don't know how to do this or I don't have the technology at home to register." We would sit there and just register them. I noticed that they were not techno-savvy. I don't even know if they know about the hashtag. A lot of them just don't know.

Kimberly Gonzales: The hashtag thing is definitely more for the students. And you guys had younger students this time. Right?

Martha Osei-Yaw: Mmm...Hmm...

Kimberly Gonzales: Not into the high school level. That probably had something to do with it. With the lack of the use of the hashtag. I think it would be interesting for the next conference, if maybe we could...I know we talked about it. Doing a survey this year.

Martha Osei-Yaw: I think Maribel was working on that. She was supposed to do that. There was so much happening that I didn't oversee every little thing. We worked in teams. You empower the teams.

Kimberly Gonzales: It's a lot.

Martha Osei-Yaw: We did talk about the surveys. I know she did something with the QR Code and then we had the raffle. I think that they did the survey because in order to enter the raffle they had to do the survey using the QR Code.

Kimberly Gonzales: That would be interesting since what you just said about the technology. The QR Code is another barrier to entry.

Martha Osei-Yaw: That's what we were wondering about.

Martha Osei-Yaw: What percentage of the content that you promote online is Spanish and what percent is in English?

Kimberly Gonzales: It's mostly all in English and I wish it wasn't that way. I just need help. Spanish was my first language but now it's not the best in reading it and that's my own fault. Writing it is difficult for me. I tried to enlist the help of my mom. She was looking for something to do. And then she said, I can't find content. She did not know what to post. Yeah, I would love for it to be not just English.

Martha Osei-Yaw: I was just wondering.

Kimberly Gonzales: Definitely not enough Spanish going on.

Martha Osei-Yaw: Lori had a great question the other day. The question...Do you remember the question that you were asking Lori the other day? We were talking informally about the affiliates...I think that's what you called it.

Lori Dini: Oh yeah, because we had talked about...

Martha Osei-Yaw: We were looking for recommendations and ideas.

Lori Dini: Building your membership. We just had the idea if you would be interested in having something instead of membership. Something like an affiliate member for people who may want to join the organization but don't meet the requirements for joining the organization.

Kimberly Gonzales: Yeah...I think we talked about this at a board meeting. We went through so many different...there was a lot of arguing. We can bring it up again. One of our board members was like, "I want a community just for Latinas in STEM." "That is who we are and I want it to be that way." We were like...okay. You know, people are very passionate about different things. That has been brought up a couple of times especially because we have male members who are passionate for our cause.

Martha Osei-Yaw: I think that was a follow up question that Lori had.

Kimberly Gonzales: They do. They are passionate and they want to be a part of us. I don't know. I'll bring it up to the board. They want it to be just us...female, empowerment community. Just for us.

Lori Dini: That makes sense too especially since you are all volunteers.

Martha Osei-Yaw: We were looking for ways to help you grow. For example, myself, getting a doctorate in educational technology leadership just like you ladies (referring to the researchers) but, I am not an engineer and I'm not a mathematician and I'm not a scientist. I think there are

people out there that could offer a lot and believe in your mission and help you grow even though we may not fit the...I tick the Latina box but everything else...I don't bring with me, you know, the powerhouses that that you guys are from MIT...but if we all just helped to contribute.

Even Lori, for example...if Lori wanted to support Latinas in STEM and help you in one way or the other. Even Antoinette... We may not be able to tick every box there but it would definitely empower and support to help you gain ground.

Even for myself, I went to the Latinas in STEM Conference last year at Stevens and I loved the work and I left feeling a little disappointed. I don't think I told Maribel that I was feeling a little disappointed but I'm telling you. The confessional. The camera is the confessional. I left feeling a little disappointed because I thought I was going to go into a space where it was just Hispanic girls and when I got there I saw so many boys.

Kimberly Gonzales: I know.

Martha Osei-Yaw: And they were not Hispanic. Not that they needed to be Hispanic. But I just thought this is the one place where I'd love to see this room filled with Latinas because it's not happening. It was very inclusive and everyone had a great time and everyone learned but it wasn't just about Latinas. I thought, geez...we need to create the space of just Latinas.

And then...we had the event at my school. And then it was a total shift...a paradigm shift. I didn't want to be just exclusive because there were so many kids that were hungry to be there. So many boys that wanted to be a part of it... so many African-American students that wanted to be a part of it...so many parents...so many...And I said, yes, you know what...I want to empower Latinas but guess what? If we could just make a difference in this underrepresented community it'll just make the world of difference. So I had the shift from, you know... last year my perspective and then this year. I can see both points of view but I know definitely just to help you grow that is something that you might be open to. How can we help you grow?

Kimberly Gonzales: Well, that's really good to bring up again.

Antoinette Pinder-Darling: I just wanted to say something along the lines of the affiliate members. While I personally may not have a strong science, math or engineering background I have a lot of influence in my area. Certainly we have a strong Cuban and Mexican group living in the Bahamas that you have no contact with that I can link you to or connect you with. So I agree with opening up and building partnerships because it can certainly reach persons that will not ever be associated with you. But having an affiliate membership ...you can reach those people.

Kimberly Gonzales: I think maybe that's good to bring up again (referring to the Board of Director's meeting). Our last Board meeting was in August. It used to be stricter than it is now. That's good to bring up again. They may have had the same paradigm shift that you've had.

Martha Osei-Yaw: Everyone benefitted on Saturday.

Martha Osei-Yaw: Lori and Antoinette, do you have any other questions?

Antoinette Pinder-Darling: I had a question about satisfaction. Outside of “likes” how else do you know if someone feels satisfied or that the online community is meeting a need?

Kimberly Gonzales: I think the comments and there aren't that many. There are one or two per posts. The comments let you know if they are satisfied, if they like it or if they agree. Also on Twitter the retweets. People liked it enough that they wanted to share it with their network too. I guess, also, the shares on Facebook. They also comment back on Instagram and on Twitter, as well. You know, “I love this!” Or, “I didn't think about this.” Or sometimes, “I disagree” because we pose a lot of third-party content that is not things that we created and things that we curated. Or, “I don't know if this opinion was right.” Or engaging in the conversation is good. Or, “Wow, I never knew this.”

You know how you can quote the tweet and then it tells you someone else says something about it. Right? And so on and not just retreating. That happens a lot on Twitter. I think that helps me want to post more especially about something that was very popular.

Antoinette Pinder-Darling: Okay. Thank you very much.

Martha Osei-Yaw: Lori do you have any questions? No, I think for the most part actually a lot of the metrics answered some of my questions.

Antoinette Pinder-Darling: So did mine.

Kimberly Gonzales: Do you guys want more metrics?

Martha Osei-Yaw: I think we have enough. You gave us a lot of information that I never even imagined existed with people's email addresses.

Kimberly Gonzales: Oh, yeah. I probably shouldn't have provided you with that.

Martha Osei-Yaw: No, no, no, no. It was good. We're not going to do anything with it. But just to look to see that somehow there's a database that has the ability to track those people.

Kimberly Gonzales: Oh yeah. That was Mail chimp, by the way. It was free. They also have a paid service. They're great with their free metrics. They can track when someone opens and where they're from and then you can deduce that someone forwarded their newsletter to somebody else because then it says they opened it 66 times which no one does that. That means that they forwarded their email. They give you a lot of good metrics there. I recommend it because a lot of what they provide you is free. If you want to go above and beyond you can pay for it.

Lori Dini: How often do you send out newsletters?

Kimberly Gonzales: We used to do it a lot more last year. But we just sent one out a couple of weeks ago. We're trying to send one out every two months just to keep it more attainable. I'm trying to focus more on our members. I think we have a lot of followers. That's been great, but we are trying to make sure we get members to actually feel really part of our community and

want them to volunteer with us. Our goal this year...We have 25 members or something like that. We could really will use more members.

Martha Osei-Yaw: That whole conversation that Lori and I were speaking about even at the University with having internships and things like that at New Jersey City University, for example, they present us with opportunities as doctoral students and candidates. Organizations come to us and say we're looking to have someone be a part of Girls in Technology or we're looking for such and such. Just trying to find ways in which individuals can affiliate and support without being a Latinas in STEM major member.

Kimberly Gonzales: Yeah.

Martha Osei-Yaw: Because 25 people isn't really enough to do everything that you need to do.

Martha Osei-Yaw: In a year, how many people actually attend your conferences? The STEM 101 Conferences... How many people actually attend those?

Kimberly Gonzales: I actually do have numbers for that. Hold on. Let me pull it up. We provided that information in a newsletter a while ago.

Martha Osei-Yaw: It would be great if you sent us a copy of the newsletter.

Kimberly Gonzales: I'll send you the one that has this information in it.

Martha Osei-Yaw: I was trying to compare...I'm sure you probably also follow Girls Who Code and part of their organization is the mentorship component. And aligning... and having the summer camps and having maybe a weekend event or things like that to align mentorship with the students...with the girls. I was just wondering if that was something that you try to do with the STEM 101 Conferences. How do you make those connections between the face-to-face interactions and the online interactions?

Kimberly Gonzales: So, right now...we get to so many requests we can't handle them. Like, let's be real. We just can't. We get so many messages everyday on Facebook. We get emails, "I want a mentor for my daughter." "Can you please speak to her about this?" Then we will try to reach and pair them or figure out what their needs are. But right now, we just have an overwhelming need and not enough people to do it.

We even made a call...We had to stop doing career day presentations this year. We don't want to do that but it was it was becoming overwhelming and it is overwhelming. I mean just even for me in my own job. I'm not the only one, but the only one that is young enough to still have time to do this. And oh my God, I get asked every week, "Can you please do this career fair?" "Can you please do that?"

We get a lot of volunteer fatigue. I know sometimes we get that. It's really hard. I think the way we have kind of solved it in LA is that we have a partnership with SHPE and somebody else. So, we're actually doing that mentorship program. But, it's actually funded. There's a stipend involved where there just isn't a volunteer. They get something too so there is more of a

commitment. That was helpful. We got a grant for that. We would love to. I just had to get Dayrene to...Someone asked about transferring. I had to ask Dayrene. "Dayrene could you talk to her...this one lady?"

Martha Osei-Yaw: The conference that we put together it took about six months.

Kimberly Gonzales: Yep. It's a lot of work. It's so much work. I'm glad you were able to do that. It sounded so successful.

Martha Osei-Yaw: It's five of you I believe...the founding directors.

Kimberly Gonzales: It's about five or six.

Martha Osei-Yaw: So, those are the ones that go from city to city doing these events so you don't have other people. It's you and you're the one. I spent countless hours working with Maribel on the stuff. I could just imagine. She has a job and she has a family. So all of you are really spread thin. I could see that...which is all the more reason why we were trying to brainstorm some ways in which the organization could grow.

Kimberly Gonzales: Yeah. I think that's helpful and we do get these great volunteers for each conference. But then we try...For the Dallas one we had a great group of volunteers. We tried having a Facebook group to get us together. It kind of fizzled out from there.

Antoinette Pinder-Darling: Kim, what plans do you have to actively recruit volunteers so that you are able to fill many of the requests that are coming in?

Kimberly Gonzales: Our current recruiting volunteers...I do not have a plan for them right now. We should probably attack that in many ways. Maybe volunteers can turn into members instead of the other way around.

Martha Osei-Yaw: Maybe something tiered. I was one of those that volunteered last year and I thought...Okay, let me bring them here. I'm not a member. I just follow you on Facebook.

Kimberly Gonzales: I'm glad you do. If you don't like something, let me know and I'll stop posting about it.

Martha Osei-Yaw: This has been wonderful. Does anyone have any other questions?

Antoinette Pinder-Darling: I think she covered all of mine.

Martha Osei-Yaw: Thank you for your generous spirit. I know how busy you are and you went above and beyond. You just made it so much easier for us...to really help and to do something with this project. Thank you for your generosity.

Antoinette Pinder-Darling: Muchas gracias.

All: (Chuckles).

Martha Osei-Yaw: The three of us are going to be working off line and we will be making some recommendations. We wanted this to be a win-win situation for both of us. You gave us some time but with that we would also like to give back...make some suggestions...put together some ideas that might benefit you.

Kimberly Gonzales: Yeah. I would love to hear your ideas. This conversation was also helpful for me especially since the last few weeks I haven't had a lot of time to sit and dedicate to Latinas in STEM. I'm glad that we were able to do this.

Martha Osei-Yaw: Thank you! Thank you! Thank you! If we don't have any further questions, we'll let Kim get some rest.

All: Thank you so much!

Kimberly Gonzales: Have a good Easter!

All: Thank you!

Appendix D

Group Log

Date	Activities	Comments
March 13, 2016	<p>Lori Dini emailed the team with a suggested online community: Tarte Cosmetics and Martha Osei-Yaw made a recommendation about the organization “Latinas in STEM”.</p> <p>Martha reached out to Dr. Shamburg for guidance about the selected online community.</p>	<p>The group eventually decided upon Latinas in STEM.</p>
March 14, 2016	<p>Martha emailed Antoinette Pinder-Darling and Lori Dini with the contact information for the Directors of Latinas in STEM.</p> <p>Antoinette and Lori checked in on Blackboard for updates.</p>	<p>The contacts who were interviewed:</p> <p>Jazlyn Carvajal Director of Finance jaz@latinasinSTEM.com</p> <p>Kimberly Gonzalez Director of Marketing Kim@latinasinSTEM.com</p>
March 15, 2016	<p>1st group meeting – Martha, Lori and Antoinette</p> <p>Lori – prepared a letter that was emailed to one of the contacts.</p> <p>Antoinette – drafted questions for the interview session.</p> <p>Martha – conducted the interview and transcribed the raw data.</p>	<p>Antoinette visited NJ and met with Martha in person. We had Google Hangout meeting with Lori that commenced at 7:45 p.m.</p>
March 16, 2016	<p>Antoinette, Lori and Martha met Jazlyn Carvajal in person at the Girls in Technology Symposium and conducted a brief “meet and greet.”</p>	<p>The team used this opportunity to confirm our first interview that was scheduled for March 21, 2016 at 7:00 p.m.</p>

March 21, 2016	Meeting with Jazlyn Carvajal on Google Hangout at 7:00 p.m.	Meeting occurred as planned. Martha recorded the interview. All team members posed questions.
March 25, 2016	Meeting with Kim Gonzales via Google Hangout at 11:00 a.m.	We met as planned. Kim forwarded a newsletter and metrics. All team members posed questions for this interview.
March 26-28, 2016	Group compiled and analyzed data; the paper is edited by all members of the team.	Paper to be submitted by April 1, 2016.
March 29, 2016	Final Google Hangout meeting at 8:30 p.m. to wrap-up project.	
March 31, 2016	Antoinette - Intro, Purpose, Goals and Measures Taken, Reference page and Group Log Lori - Intro, Metrics, Conclusion and Recommendations Martha - Intro and Transcribed Interviews	