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Splashing Pink in Technology: Highlighting Young Women's Participation and Motivation in Social Media Production

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This study seeks to examine gender differences in social media production, which can highlight young women' relationships with digital technologies and identify a potential way to use social media to increase young women's interests in technology. Applying self-determination theory and using an online survey of young social media content creators (N = 545) who are 15-24 years old, findings from this study indicate that young women are actively participating in graphic production and have interests in beauty and fashion while young men were more active in video production and producing content about gaming and sports. In addition, extrinsic motivation, especially tangible rewards, played a significant role in motivating young women to engage in social media production. The implications for recognizing social media as significant technology activities and their potential to positively support young women's exploration of interests are discussed.

Keywords: social media, technology, gender, content creators, motivation, survey

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Despite statistics that reported women are less represented in the technology field (e.g, U.S. Department of Labor, 2015; PayScale, 2017), many young women are active users of digital technologies, specifically social media, that can demonstrate their concrete interest in technology. For example, in 2014, RJMetrics analyzed 50,000 random pinners and their pins on Pinterest and found that female users made 92% of all pins and had an average of 158 pins (Moore, 2014). In addition, young women are also thriving on YouTube as content creators and are obtaining many mainstream opportunities such as book and TV show deals. In order to participate in these social media activities, they need to know how to navigate different platforms and use editing functions to create content that can show how young people are self-teaching about technologies to fulfill their purposes. Social media have been also credited to encourage young people in general to immerse in STEM education through networks and

resources (Lynch, 2018), which further solidifies social media's potential to connect more young women to be interested in technology.

However, there is a lack of understanding in how and why young women are involved in these technologies. The central focus of young women's media research has been on traditional aspects of identity such as gender, race, ethnicity, and class (e.g., Chandler-Olcott & Mahar, 2003; Lange, 2015), which acknowledged gendered participation in digital technologies but provided limited information that differentiated between young women and men's attraction toward digital technologies, especially social media. To fulfill this gap, this study identified young people's social media activities and motivators, particularly emphasizing young women's participation. Many young people in general are independently driven to engage in social media, and their motivators can be seen as potential catalysts to increase their interest in digital technologies. Moreover, motivation has been correlated to long-term learning (Gottfried et al., 2001; Pan & Gauvain, 2012), and it can reveal young women's learning process to adopt digital technologies and produce content on social media. These motivators could be applied to other digital technologies to further their participation. Thus, the present study utilizes self-determination theory and a survey design to conduct an exploratory research on young women's general social media production activities. This study can support practical understandings of gender differences in social media production and recognize social media's potential to open greater technological participation.

LITERATURE REVIEW

Self-determination Theory and Motivational Learning

According to self-determination theory (Deci & Ryan, 1985), motivation can explain different goals and reasons that encourage a person to partake in a behavior, and it is primarily divided into two main types from highest to lowest self-determination: intrinsic and extrinsic. Intrinsic motivation can be explained as "the doing of an activity for its inherent satisfactions rather than for some separable consequence" (Ryan & Deci, 2000, p. 56). It emphasizes positive experiences that naturally come from an activity that can fulfill one's innate psychological needs. It is possible that people are inherently curious beings and they have a natural tendency to act. Conversely, it can demonstrate how people possess skills to enjoy an activity and identify reasons as to why it can personally

fulfill them. Intrinsic motivation can be further explained through three psychological needs: competency, autonomy, and relatedness. Competency indicates a need to effectively interact with the environment, autonomy conveys a sense of freedom and control to make decisions, and relatedness insinuates a yearning for people to have interpersonal attachments with others (Guay et al., 2000). These needs are innate and described as basic natural human characteristics. In social media, as social interactions are heavily emphasized in these platforms, young people can easily fulfill these innate needs through comments, likes, followers, and follows in which they independently decide on who to follow and what kind of content they want to absorb.

Extrinsic motivation explicates that people participate in an activity not because of its experience but because of its instrumental value of producing separable outcomes (Ryan & Deci, 2000). Extrinsic motivation is expanded into four subtypes: external regulation, introjection, identification and integration. The primary understanding of extrinsic motivation comes from external regulation in which people recognize tangible rewards (i.e., money) or negative consequences (i.e., punishment) related to a behavior (Guay et al., 2000). Introjection consists of people performing a task due to pressures that can come from their environment (Ryan & Deci, 2000). This can be both positive and negative as it relates to maintaining self-esteem and proving their worth to others. Identification involves when a person values external goals or regulations that are personally important, and in integration, people go through self-confirmation to make sure their behaviors are congruent with self (Ryan & Deci, 2000). In social media, external regulation is most salient due to social rewards, as many young people are looking for alternative ways to gain friends and recognitions. The numbers on their social media page signify these social gains, and young people can monitor these numbers to strengthen their online presence and be included in a group.

Intrinsic and extrinsic motivation are explored in an educational context to establish its importance in learning. Extrinsic motivation is frequently used in education because students' progress is measured through extrinsic rewards such as grades and skills (Vansteenkiste et al., 2004). These rewards encourage students to learn, but they also yield to short-term accomplishments (i.e., GPA, awards) that need to be fueled through long-term goals such as obtaining their dream job. Although external rewards are

perceived as more salient to students, intrinsic rewards can also motivate students to learn. For example, in game-based learning, psychological needs, such as autonomy and relatedness, were important motivators to increase students' engagement (Eseryel et al., 2014). Exploring these factors can lead to identifying more ways to increase positive outcomes among students. Liu et al. (2014) found that self-regulated learning behavior corresponded to positive psychological outcomes in terms of intrinsic variables, which also contributed in students getting better grades that illustrates the connection between intrinsic and extrinsic motivation. Hence, both intrinsic rewards should be considered to help students to strengthen their learning experience.

Overall, both intrinsic and extrinsic motivation can accelerate young people's learning, and they are especially recognized in an autonomy-supportive environment where students are able to control their learning experience. Digital technologies, such as social media, can give these controls to young people in which they are able to identify their own tools and preferred content. By being independent learners and personalizing their learning experience, they have become the participants of informal learning to explore their interests and gain necessary skills.

Participatory Culture and Female Media Technology Users

Informal learning happens through participatory culture that support students' autonomy, helping young people to become self-determined to participate in various activities of their choosing and create media messages. Many young people can be frustrated by the restriction in traditional school systems, and this has contributed to the rise of participatory culture, as many young people are informally learning online to expand their knowledge and satisfy their personal interests (Jenkins et al., 2009). Participatory culture happens especially through digital technologies, and many young people can easily interact with others, share their content, and immerse in different cultures on various platforms. Although obstacles to participation with digital technologies, such as digital divide, have addressed unequal distributions of access and knowledge, participatory culture has created another layer of inclusivity to help people become media producers (Wei & Hindman, 2011; Srinivasan, 2012).

Participatory culture is especially prevalent in digital technologies because they have certain qualities that increased people's participation. Baym (2010) stated that

digital technologies yield to greater technical interactivity, which can be defined as a medium's capability for people to operate the machine using its interface that increased spreadability of media messages. Especially as social media became everyday uses of technologies, young people have taken advantage of this technical interactivity to indirectly and directly learn technology skills. Through their skills, young people are producing media messages that can serve as self-expressions and formation of new cultural production.

Women always have been immersed in participatory culture and recognized as media users. These activities do not solely comprise of passive reading, but they also write on their journals and discuss with others, which help them to analyze media content and form social groups (Radway, 1991). In addition, women are also involved in media production. Coppa (2006) highlighted female fans' work in that they are the ones who are mostly writing fan fictions, and their work helps to promote alternative female media characters. Women also have been actively involved in news production through print media. Even though news has been dominated by male figures, female journalists from different countries have made efforts to disseminate information that advocate for women, tell more stories about women and their accomplishments, and provide more equal gender coverage of news events (Byerly, 2013).

In digital media, women are shown to be more active participants of participatory culture to consume and produce content. In contrary to previous generations of women, whose activities were largely constrained to writing and domestic arts, young women are virtually utilizing every medium (Kearney, 2006). For digital technologies, women and girls are seen to be especially active on various digital platforms including websites (Stern, 1999; Mazzarella, 2010), YouTube (Lange, 2015), and Pinterest (Conlin et al., 2014). By using these technologies, they are receiving many benefits that can enhance their identity. For example, Kearney (2006) observed young female web designers to find that they are able to become cultural producers to experiment with their identities and integrate several practices (e.g., production, entrepreneurship) that are essential to cultural industries. Denner and Campe (2008) also found that young women can utilize game design "to play with gender stereotypes and reject the expectation that girls are always well behaved" (p. 141). These examples illustrate that women can develop technical identities through

participatory culture and digital technologies, which can help to generate new meanings and representations.

Although women seem to take advantage of digital technologies, their interactions are not always positively portrayed. For example, research has suggested that young women's interaction with technologies is gendered and they used these technologies for feminized interests that fit with their gender identity (e.g., Chandler-Olcott & Mahar, 2003; Koutsogiannis & Adampa, 2012). Exploring women's identity should not be limited to traditional gender perimeters that can decrease the potential to develop multiple identities. Young women were also found to be less confident and have more negative attitudes toward their technology usage than young men (e.g., Kirkpatrick & Cuban, 1998; Li & Kirkup, 2007; Yau & Cheng, 2012), which undermined their ability as technology users and contributed to gender stereotypes.

However, these results might not apply to those young women who are engaged in social media production. They are already using digital technologies to produce content, which may exhibit their technology confidence and technical identity. Therefore, the research trajectory can expand to participatory culture in social media that can observe women's active technological participation and identify their interests in digital technologies.

Research Questions

The combination of increased young women's participation on social media and use of digital technologies calls for a new understanding of young women's relationship with digital technologies. In order to highlight young women's interests, young men's interests should be also considered to identify gender differences in various social media production activities. The spectrum of social media production activities is wide, which results in different types of content; hence, each activity in social media production is distinguished by using the four types of digital production (i.e., text, photo, graphic, and video) (Choi & Behm-Morawitz, 2019). These activities can be further examined by their content topics that can show young women and men's interested expressions. Moreover, according to self-determination theory, there are various motivators that can influence one's behavior. Thus, motivation is divided as intrinsic and extrinsic motivation to examine how they influence young women and men's participation. Lastly, social media production may

trigger new interests in other digital production that can highlight the continuation of technology interests; as a result, young women and men's future interests should be also considered. Based on this review of literature, the following research questions were asked:

RQ1: Do young women and men differ in the type of social media production?

RQ2: Do young women and men differ in topics of their social media production?

RQ3: What motivates young women and men to participate in social media production?

RQ4: Do young women and men differ in their future learning interest for other types of digital production?

METHODS

This study utilized an online survey to detect young women and men's social media production activities. Participants were sent a link to the survey, which took approximately 20 minutes to complete. This study utilized UNESCO's (2016) definition of youth and recruited 15 to 24 years old young people who have produced content on social media were invited using two recruitment methods. First, undergraduate students from communication courses at a large Midwestern university were offered extra credit in exchange for their participation. In order to diversify the sample, recruitment scripts were also posted on social media platforms, such as Reddit and Twitter, to gather a volunteer sample, and participants had an option to enter a raffle to win one of three $50 VISA electronic gift cards.

Participants

The final sample (N = 545) ranged in age from 15-24 (M = 19.84, SD = 2.97), and they were 48.3% (n = 263) male, 49.9% (n = 272) female, 1.1% (n = 6) transgender male, and .7% (n = 4) transgender female. These participants consisted of 65.3% (n = 356) White, 8.1% (n = 44) Hispanic or Latino(a), 8.1% (n = 44) Black or African American, 0.7% (n = 4) Native American or American Indian, 11.4% (n = 62) Asian, 0.9% (n = 5) Native Hawaiian or Pacific Islander, 0.9% (n = 5) Multiracial, and 4.6% (n = 25) other racial groups. For location, 76% (n = 412) of participants were from United States and 24% (n = 133) of international participants were mainly from Canada (5.7%, n = 31), United Kingdom (4.0%, n = 22), and Australia (2.4%, n = 13).

Measures

Types of Social Media Production. The four types of social media production were listed as text, photo, graphic, and video production, and participants were asked to select an activity that they are most frequently engaged in.

Topic. Adopting a categorical system from YouTube, a list of topics (music, art, comedy, entertainment, celebrity, film & animation, gaming, how to/DIY, beauty & fashion, automotive, sports, tech, science, education, cooking, health, news & politics, activism, and travel & events) was generated. Participants chose the topic that they most frequently address in their content.

Motivation. In order to identify various reasoning behind young women and men's social media participation, quantitative and qualitative measures were utilized to differentiate between intrinsic and extrinsic motivation.

Intrinsic Motivation ($\alpha = .80$, $M = 4.28$, $SD = .69$); *Extrinsic Motivation* ($\alpha = .72$, $M = 3.21$, $SD = .78$). For quantitative analysis, the subscales in Situational Motivation Scale (SIMS) (Guay et al., 2000) were used. These motivation scales consist of eight statements such as "Because I feel good when doing this activity" (intrinsic motivation) and "Because it can help me with my career" (extrinsic motivation). Participants answered these statements using a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Other Motivation. In order to identify other motivators that were not captured through SIMS, an open-ended question was used for qualitative analysis: "Thinking about content you produce on social media, what motivates you to participate in this activity?" Participants were provided with an empty space to write their response.

Future Digital Production Interest. Respondents chose from a list of digital production activities, which comprised of other types of social media and digital production activities that they did not choose in the beginning. Audio and coding/programming were also added to the list to provide broader digital production options. If their interest was not available as an option, they had an option to specify their interest using "other."

RESULTS

Research Question 1

RQ1 examined differences in young women and men's participation in different types of social media production. The results from a chi-square analysis showed a

significant relationship between gender and different types of social media production, χ^2 (3) = 32.99, *Cramer's V* = .25, $p < .001$. The Scheffé tests indicated that young men (74.0%, $n = 74$, ASR = 5.5) were more likely than young women (26.0%, $n = 26$, ASR = -5.5) to participate in video production ($t = 5.50$, $p < .05$), and young women (63.3%, $n = 69$, ASR = 3.0) were more likely than young men (36.7%, $n = 40$, ASR = -3.0) to participate in graphic production ($t = 3.00$, $p < .05$).

Research Question 2

RQ2 inquired whether there was a gender difference in content topics for social media production. The results from a chi-square analysis revealed a significant relationship between gender and content topics, χ^2 (18) = 62.47, *Cramer's V* = .34, $p < .001$. The Scheffé tests indicated that males (79.4%, $n = 27$, ASR = 3.6; 71.9% $n = 23$, ASR = 2.6) were more likely than females (20.6%, $n = 7$, ASR = -3.6; 28.1% $n = 9$, ASR = -2.6) to create social media content on gaming ($t = 3.60$, $p < .05$) and sports ($t = 2.60$, $p < .05$) while females (96.3%, $n = 26$, ASR = 4.9) were more likely than males (3.7%, $n = 1$, ASR = -4.9) to create social media content on beauty & fashion ($t = 4.9$, $p < .05$).

Research Question 3

RQ3 asked to define young women and men's motivation to engage in different types of social media production. The data were split among gender, and multiple regression analyses were conducted. As shown in Table 1, for young women, there was a significant relationship between motivation and text production ($F(2, 275) = 4.23$, $p < .05$, $R^2 = .03$), photo production ($F(2, 275) = 4.69$, $p < .01$, $R^2 = .03$), and graphic production ($F(2, 275) = 7.24$, $p < .001$, $R^2 = .05$). There was no significant relationship between motivation and video production, $F(2, 275) = 1.46$, *n.s.* Intrinsic motivation was a negative predictor for text ($\beta = -.18$, $p < .01$), and extrinsic motivation was a negative predictor for photo ($\beta = -.19$, $p < .01$) and a positive predictor for graphic ($\beta = .16$, $p < .05$) production. For young men, the only significant relationship was found between motivations and text production, $F(2, 268) = 8.54$, $p < .001$, $R^2 = .06$, and intrinsic ($\beta = -.24$, $p < .001$) motivation was a negative predictor.

Table 1. Relationships Between Social Media Production and Motivations and Gender

Gender	Production	Motivation	ß	t	R^2	ΔR^2	F
Females							
	Text	Intrinsic	-.18**	-2.87	.03	.02	4.23*
		Extrinsic	.03	.50			
	Photo	Intrinsic	.02	.29	.03	.03	4.69**
		Extrinsic	-.19**	-2.98			
	Graphic	Intrinsic	.12	1.87	.05	.04	7.24***
		Extrinsic	.16*	2.54			
	Video	Intrinsic	.11	1.66	.01	.00	1.46
		Extrinsic	-.01	-.16			
Males							
	Text	Intrinsic	-.24***	-3.76	.06	.05	8.54***
		Extrinsic	-.01	-.17			
	Photo	Intrinsic	.10	1.47	.01	.00	1.09
		Extrinsic	-.04	-.67			
	Graphic	Intrinsic	.08	1.15	.01	.01	1.67
		Extrinsic	.06	.89			
	Video	Intrinsic	.12	1.78	.01	.01	1.89
		Extrinsic	.00	.06			

*$p < .05$, **$p < .01$, ***$p < .001$

To account for other motivators, participants' responses from an open-ended question were hand-coded and analyzed using an inductive approach to look for emergent themes. Selective coding processes were utilized to identify and refine categories, which detect similarities and differences in responses (Corbin & Strauss, 2008). Young women and men's responses were separated, and each response was coded to find overarching themes. Two themes were found for young women (i.e., self-improvement, tangible incentives) and men (i.e., social connection, enjoyment), which are shown in Table 2 and 3.

Self-improvement. This theme reflects how many young women took advantage of social media to learn about new skills or enhance their existing skills. Because participants chose the topic and the platform for their content, they were eager to seek out ways to improve their work and obtain satisfaction from their progression.

Tangible incentives. Many young women also stated that social media were ways to make a profit. This profit ranged from money to career advancement that can enhance their status quo. It reflected another level of recognition that is separated from social feedback and connections, as these incentives related to a form of advancement.

Social connection. Consistent with social media's main purpose to establish social connections, this theme was identified as many young men expressed their desire to share their content with family, friends, and strangers. Many of the participants also stated that they used social media as their digital portfolio to share and gain social feedback (e.g., comments, likes).

Enjoyment. Many young men felt positive emotions, especially enjoyment, as they were able to see their progress and validate the importance of their work. Moreover, in many instances, there were no concrete reasons as to why they participated in social media production. They simply stated that they participate in an activity for fun or to fill time.

Table 2. Young Women's Responses to Participating in Social Media Production Motivation

Self-improvement (Intrinsic)
"Just seeing whether my art improves over time, and it's nice to look back at it." (Female, Age 20, Graphic Production)
"Because I love learning new things, and through that, I can improve my drawing. When I do that, I will be able to share all my feeling into my art." (Female, Age 15, Graphic Production)
"I've spent the last few years watching YouTube beauty gurus, and always thought to myself, "I want to do this." I have always loved makeup and art, doing my own beauty and fix makeup almost daily and freelancing, and this was just the next step in my mind to improve my skills." (Female, Age 23, Video Production)
"I participate because I can make a brand for myself. Allowing my name to be recognized means I can gain criticism to get better at what I do." (Female, Age 17, Graphic Production)
Tangible Incentives (Extrinsic)
"Money earned from YouTube, the networking opportunities that allow me to earn additional money and sponsorships." (Female, Age 21, Video Production)
"I use my blog to show my fashion abilities and trend awareness and share the link with future employers as a way for them to understand my skills. I also enjoy interacting with brands on posts and getting free samples." (Female, Age 21, Photo Production)
"I'd like to open commissions in the future to make some money when I have enough followers, and when I grow up, I'd like to become a freelance artist. I feel that DeviantArt is a good place to start building my career." (Female, Age 16, Graphic Production)
"I am trying to make some extra money with my drawings. I recently lost my job and have been too busy with school to find another one that fits my schedule." (Female, Age 20, Graphic Production)

Table 3. Young Men's Responses to Participating in Social Media Production Motivation

Enjoyment (Intrinsic)
"I've always been interested in video/animation, from as long as I can remember. All I did as a kid was to draw and create. I do it simply because of my interest and curiosity as a child." (Male, Age 18, Video Production)
"Overall, I just enjoy creating videos. It's a fun thing to do, knowing that I can make it look great." (Male, Age 17, Video Production)
"I do it as a hobby and gain satisfaction through the process of taking photos." (Male, Age 22, Photo Production)
"It provides me with an outlet, and it's a method of entertainment that doesn't require much effort." (Male, Age 18, Text Production)
Social Connections (Extrinsic)
"Followers and subscribers are the reason you feel motivated because you know that somewhere, somebody is waiting for more of your content." (Male, Age 16, Video Production)
"I think it motivates me to make other people think to question what is going on around them. I don't necessarily agree with all ideas or thoughts it bring up (especially if they are confrontational), but it makes me feel better that I can have intelligent conversations with people about meaningful topics through social media." (Male, Age 22, Text Production)
"The people and conversation that can arise. I never talked to people much as a kid, but I've always had topics and ideas floating around in my head. This is my outlet for conversation." (Male, Age 21, Video Production)
"What motivates me is my drive to better who I am and, become a more understanding person overall. This can be learning from other people and learning from what people have to say about what I do." (Male, Age 20, Graphic Production)

Research Question 4

RQ4 analyzed if young women and men differ in their future interest in other type of digital production. The results from a chi-square analysis identified a significant relationship between gender and interest in social media and digital production, $\chi^2(7) = 23.04$, *Cramer's V* = .21, $p < .01$. The Scheffé tests indicated that young men (73.5%, $n = 25$, ASR = 2.9; 68.3%, $n = 28$, ASR = 2.5), in contrast to young women (26.5%, $n = 9$, ASR = -2.9; 31.7%, $n = 13$, ASR = - 2.5), were more interested in learning about text ($t = 2.90$, $p < .05$) and audio ($t = 2.50$, $p < .05$) production. Contrary to young men (33.3%, $n = 27$, ASR = -.8), young women (66.7%, $n = 54$, ASR = .8) were more interested in photo production ($t = 3.10$, $p < .05$).

DISCUSSION

The primary focus of this research is to highlight young women's activities in social media production and connect social media to greater technological participation. Findings from this study supported young people's active participatory culture in social media and found some significant gender differences that defined young women and men's distinct interests in social media activities. First, as for their chosen activity, young women were more likely to engage in graphic production while for young men, it was video production. This pattern of participation can be matched with gender statistics in media professions. For example, video production is dominated by males as in 2018, 74% of films employed 10 or more men (Lauzen, 2019), and 75% of the top 100 most subscribed YouTubers were males (Döring & Mohseni, 2018). As for graphic production, in the U.S., 54% of the designer category (e.g., graphic, floral, interior, merchandise) were women (Grefe, 2011), and in the UK, 70% of the design students were women (Wright, 2014). The divide between graphic and video production may be explained by interests. Graphic production can correlate with feminine fields, such as fashion and interior design, which may resonate more with traditional female interests and serve as their motivators. As for video production, women's role in video production has been limited to sexual objects under male video producers' gaze (Frisby & Aubrey, 2012), which could undermine women's ability to become a video producer. Although these correlations do not make a claim that only men are qualified to become video producers, as there are many female filmmakers and YouTubers, they can emphasize that young women and men have different interests in using technologies to produce different social media content. As such, in order to encourage more young women to use digital technologies, social media platforms like DeviantArt and Tumblr that focus on graphic production can be further promoted and utilized toward young women.

For content topics, young women mainly produced content on social media related to beauty and fashion while for young men, these topics comprised of gaming and sports. These findings are consistent with popular categories in social media in that for YouTube, female-dominated categories are makeup and cosmetics, and male-dominated YouTube categories are soccer and strategy games (Blattberg, 2015). This divide in interests can be explained through existing perceptions of each topic. For example, despite approximately

equal numbers between male and female video gamers, gaming is strongly associated with males and masculinity (Williams et al., 2008; Behm-Morawitz & Mastro, 2009; Kaye & Pennington, 2016). Young women could naturally gravitate toward beauty and fashion because many girls play with dolls and dress up from the early age. The focus on appearance is inseparable for young women and girls as they are emphasized in other media such as magazines and television.

Although these interests can be criticized for being gender stereotypical, they also acknowledge that young women and men have different interests, and they can be used as motivators to encourage more young women to use digital technologies. For example, there are endless female YouTubers who create different makeup looks and share beauty tips, and they are participating and learning about video production due to their interests. This process includes picking appropriate equipment, learning about video editing software, and marketing their video to reach a wider audience, which can demonstrate young women's potential to successfully utilize digital technologies. Michelle Phan, Jenna Marbles, Colbie Caillet, and Lorde are just a few examples of renowned content creators who embraced their femininity and started their career on YouTube, MySpace, and SoundCloud (Duffy, 2015; Choi, 2016), and they serve as reminders that women's interests can motivate young women to take advantage of various digital technologies to create their content and connect with their audience on various social media platforms. Hence, young women can be given more supports and opportunities in social media where they can creatively think about how to express their interests using digital technologies.

However, because this study relied on sampling and cannot make a generalization about all young women's interests, it is also important to note that there are also many other young women who are not interested in beauty and fashion and that expressing femininity is not the only way to participate in social media production. For instance, Grace Helbig and Colleen Ballinger (i.e., Miranda Sings) are YouTube personalities and comedians who used humor to stand out as a video producer, which led to their mainstream media debut. Furthermore, Carrie Anne Philbin makes videos about teaching people how to code and iJustine is known for her technology unboxing videos. These examples indicate that there are many more topics and interests that young women can explore through using social media, and they can be constantly involved in post-feminist

self-branding, entrepreneurship, and community development to market themselves and stand out from the competitive social media market (Kearney, 2006; Banet-Weiser, 2012). Hence, social media production becomes an important activity to accelerate female digital producers' interest-drive participation and desire that can also increase their skills to use social media and other related digital technologies.

For motivation, the only positive relationship was found in young women who were involved in graphic production. Their extrinsic motivation increased as the they were engaged in this activity. This finding is accompanied by qualitative responses, which indicated that young women were motivated by tangible incentives, which emphasize external regulation. Oftentimes, external regulation has been regarded as superficial and short lived (Deci, 1971; Young, 2005); however, according to this study, extrinsic motivation should be acknowledged as an important type of motivation and its ability to encourage more young women to use digital technologies. This connection can be explained by looking at young women's status as a minority group who are often seen as inexperienced or unqualified for technology related tasks. Because of their status, external rewards, such as recognition and awards, can serve as important symbolic indicators to potentially break away from their status quo and gain confidence in oneself, which can also connect with intrinsic motivation of gaining competency and autonomy to strengthen oneself and take control of one's pathway to success.

The qualitative responses from participants provided more insights on young women and men's motivation. Four themes have risen from their responses, and they match accordingly to intrinsic and extrinsic motivation. Young women and men identified both intrinsic and extrinsic motivators, as the intrinsic motivated responses consisted of self-improvement and enjoyment to indicate self-fulfilling reasons. Extrinsic motivation was also important, as young people seek opportunities to establish social connection and obtain tangible incentives from their participation. For young men, they identified enjoyment and social connections as their motivators. They highlighted the communal nature of social media as they have made sharing content more appealing, and young people are constantly involved digital communities to fulfill interpersonal benefits of belonging and social capital (Harlan et al., 2012; Dredge & Schreurs, 2020). This finding could indicate young men's interests toward becoming more social and regard social media

production as a form of entertainment. These reasons were different for young women, as they indicated self-improvement and tangible incentives, which may be interconnected. People can improve themselves for internal reasons, but by these improvements, they can also reach a goal such as to start and boost their career. In that, social media becomes important spheres to fulfill these motivators for both young women and men. They are not limited by their age or experiences, and they can be autonomous to create their content to generate visible outcomes (e.g., subscribers, likes, money). Especially for young women, when they watch other successful digital producers, such as beauty YouTubers, who are gaining fame and sponsorships, they are more likely to explore this career path to see if they can obtain the same results. By recognizing the value of social media and media models who share same interests, young women's motivation has been triggered to seek out these resources, which can be further explained by relatedness and introjection. Young women can connect with these media models, at the same time, they can strive to become like them and demonstrate their skills to their audience.

These social media production activities can motivate young people to be interested in other digital production activities. The findings reveal that young women were more interested in learning about photo production while young men were more interested in learning about text and audio production. As for young women's interest in photo production, this could be due to Instagram's popularity among female users. According to comScore, in 2016, 58% of Instagram's 108 million unique visitors were females (Seligson, 2016). Going back to content topics, beauty and fashion are also popular topics on Instagram, and young women can freely express these interests on Instagram, as it is known to help with self-expression and identify exploration (Smith & Sanderson, 2015). Hence, a greater support system could be created for young women to increase their knowledge and skills in photo production to continue their interest in digital technologies. This support system can include increase in free resources and equipment, which can help to include more young people who cannot afford technologies. Regardless of which activity, both young women and men have expressed their interest in other digital production activities that stem from their social media production. Although participating in social media production is not equivalent to more advanced technological learning, such as programming, it still holds many potentials to motivate young women to explore their

interests through digital technologies and obtain different technology skillsets to become independent technology users. Based on this study's findings, young women can be more exposed to graphic production, beauty and fashion, and external rewards in social media that can help to bolster their relationship with digital technologies. By doing so, young women can be more immersed in social media production that can support the continuation of expressing their interests using a multitude of digital technologies.

Limitations and Future Research

This study relied on limited sampling, which may not be representative to accurately measure social media activities and motivation. There are many young digital producers online who were not included in this study, especially in terms of age groups and international participants, and future studies would benefit from including more diverse samples and using qualitative interview methods to gather more in-depth responses. Because this study depended on major social media sites like Reddit and YouTube, researchers can extend their search timeline and reach out to more producers on other social media platforms such as SoundCloud and Pinterest. Moreover, in social media, there are amateur and professional content creators, and their distinction could be more clearly defined to differentiate their technology skills.

Overall, this study found that young men and women have specific interests and motivators that strengthened their technology participation in this digital participatory culture. Hence, it might be less effective to teach young women about producing a generic video when they are interested in beauty and fashion. Although these interests are considered as a gender stereotype, educators can also conceptualize it as a uniquely defined interest that could be used as an empowerment tool to create a different message within this topic. For example, a revised curriculum can encourage young women to make videos about beauty that breaks away from society's beauty standards. This integration can be a starting point for young women to further their technology skills and interests; therefore, increasing their chance to become the next generation of digital producers with a new agenda.

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Online Connections

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