

# Online Communities Among International Masters Gymnastics Participants: A Uses and Gratifications Analysis

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Masters sport participation is continually increasing, and although much research has uncovered masters participation motives, it has been noted that an understanding of community among masters athletes was also necessary. Online communities of sport participants have been examined only minimally, with research uncovering correlations between new-media use and sport-participation frequency. Using uses and gratifications theory, this study sought to examine masters gymnastics participants to develop a better understanding of athletes' use of online communities in relation to their sport participation and examine differences in online community use based on demographics. Online survey results from 164 international participants revealed they used new media primarily for fanship, information, and technical knowledge, and online masters gymnastics communities were most often extensions of in-person training groups and communities. These findings and their implications are discussed in the article.

**Keywords:** new media, masters sport, sport participants

Masters sport involves adults competing against or participating with others in a similar age range (Dionigi, Baker, & Horton, 2011). While no universal age range defines the term *masters sport*, Weir, Baker, and Horton (2010) report that masters athletes typically range from 30 to 90 years of age, although these numbers vary based on the individual sport and/or event. The number of athletes participating in masters sport is continually increasing. For example, the World Masters Games, an Olympic-style international masters competition that takes place every 4 years, grew from 8,305 participants from 61 different countries in its first installment in 1985 to 28,676 athletes from 95 countries in 2009 ("Host City Reports," n.d.).

A plethora of research has uncovered masters athletes' participation motives (e.g., De Pero et al., 2009; Gillett & Kelly, 2006; Hodge, Allen, & Smellie, 2008; Ogles & Masters, 2000; Ruiz-Juan & Sancho, 2012; Ryan & Lockyer, 2002). Lyons and Dionigi (2007) noted that in addition to motivational research, an understanding of community among masters athletes was necessary. They found that the themes

of shared sporting interest, comrades in continual activity, relevant life purpose, and “giving back” represented masters athletes’ definitions of their communities. While their research focused on face-to-face or in-person communities, online communities for sport participants have been examined only minimally to date. Of the researchers who have begun to analyze these types of communities, Eagleman and Hack (2011) found positive correlations between distance runners’ use of running-related social-media sites and their participation frequency. Mahan, Seo, Jordan, and Funk (2015) examined runners’ use of social-networking sites and concluded that such use can “augment the influence of involvement on the physical and mental benefits of participation in running” (p. 1).

While overall masters sport participation is on the rise worldwide, one specific sport that has experienced an increase in masters participation in recent years is gymnastics. Long viewed as a sport suitable only for children and teenagers (Meyers, 2012), the 2012 Olympic Games displayed a marked departure from this stereotype, as 68% of competitors in the women’s artistic gymnastics category and 89% of the men’s artistic competitors were over the age of 20 (Kim, 2012). After these games, several American media outlets such as the *The New York Times*, the *Boston Globe*, and the *Atlantic* covered the growing trend of adults participating in the sport of gymnastics at several different levels such as an elite competitive level (e.g., Olympic Games), a novice competitive level (e.g., masters games competitions), and a recreational level (e.g., participating in instructional classes), with the majority of participants fitting into the latter category. Simultaneously, a growing number of new-media outlets have emerged specifically for masters gymnasts, who are defined as those over the age of 20 (Australian Masters Games, 2015; New Zealand Masters Games, 2015). Such outlets offer online communities where masters gymnasts can obtain information about the sport and engage with other masters gymnasts. For example, a Web site dedicated to the sport of masters gymnastics, [www.masters-gymnastics.com](http://www.masters-gymnastics.com), lists over 230 gymnastics clubs in the United States and hundreds of others around the world that currently offer adult gymnastics classes. Another site, [gymnastike.org](http://gymnastike.org), has an adult gymnastics section that features photo and video uploads of masters gymnasts, a listing of masters classes around the world, masters competition results, and links to masters-related blog posts. These sites and others also maintain social-media accounts where masters gymnasts can communicate with each other.

Gymnastics differs from other popular adult or masters sports such as softball, volleyball, soccer, or basketball because it is an individual sport in which teams or formalized groups are not often present. A second difference between gymnastics and several other sports lies in society’s perceptions of the sport. Gymnastics is rarely viewed as a sport for adults, evidenced by Grossfeld’s (2010) assertion that gymnasts, at least females, are usually under the age of 18. Because of these unique aspects of adult gymnastics, it seems that online communities would be a vital way for masters gymnasts to further engage with the sport, whether it be connecting with others on social media or using online resources to learn new skills and techniques.

To further the limited research on masters sport participants’ use of online communities relating to their sport participation, the purpose of this study was to examine masters gymnastics participants’ use of gymnastics-related new media to develop a better understanding of the ways in which they use online communities in relation to their sport participation and examine differences in online-community

use based on participant demographics (e.g., age, gender, income, education). This study employed an online survey consisting of both quantitative and qualitative measures. Uses and gratifications (U&G) theory, which posits that people use specific media to satisfy specific needs (Katz, Blumler, & Gurevitch, 1974), was used as the theoretical framework.

This research will help sport management and communication academics develop a better understanding of the ways in which athletes use online communities in relation to their sport participation and will also offer new insights from a qualitative perspective, as the majority of previous research in this area has taken a solely quantitative approach. The inclusion of qualitative data helps inform the quantitative data (Creswell, 2003), thus providing richer descriptions in the participants' own words of the ways in which they use online communities. In addition to providing new insights for academics, the results will help sport-industry practitioners such as international and national governing bodies of sport, gymnastics clubs, and other fitness clubs or facilities. As masters participation is an emerging phenomenon in the sport of gymnastics, there are still thousands of gymnastics clubs throughout the world that do not offer adult programs. For facilities that might consider expanding their clientele by offering masters gymnastics classes, the findings of this study will help them understand their target market (masters gymnasts) via the information gleaned about these participants from their online communities. This information can be used to develop new programs and to effectively communicate with potential participants. In addition, the findings will assist clubs with existing masters gymnastics programs to better use new media for engaging current and potential masters gymnastics customers/participants. While this study could be replicated to understand online-community use of athletes from other sports in the future, it should be noted that the results are unique to masters gymnastics participants and therefore are not generalizable to masters athletes from other sports.

## Literature Review

### U&G Theory

This study was based on U&G theory, which posits that people use specific media to satisfy their specific needs (Katz et al., 1974). According to Katz et al., research using this theory is audience-oriented, focusing on inquiry of media users in terms of the media they use, as well as the reasons they use it. Sport communication scholars have used this theory to explain media audiences' motives for watching specific televised sports (e.g., Cheever, 2009; Gantz, 1981; Gantz & Wenner, 1995), motives for sport video-game consumption (e.g., Kim & Ross, 2006; Lucas & Sherry, 2004), and most recently to understand sport consumers' new-media choices (e.g., Clavio, 2008; Clavio & Kian, 2010).

In terms of new media, Ruggiero (2000) stated that new telecommunications technologies such as platforms that combine mass media with digital technology have presented media consumers with greater choices, and thus "motivation and satisfaction become even more crucial components of audience analysis" (p. 14). In addition, Ruggiero encouraged researchers to use U&G theory for qualitative research and mixed-method approaches, as it was typically only used in quantitative

studies. According to Ruggiero, attributes unique to new media, such as multiple content types (e.g., text, audio, photos, videos), interactivity among consumers, and asynchronous information retrieval and exchange, could all be examined under the lens of U&G theory. In recent years, several scholars, both sport-focused and non-sport-focused, have used U&G theory to better understand new-media consumers.

Clavio (2008) used U&G theory to examine the demographics of sport message-board users to better understand this group of media consumers. This research highlighted the challenge for sport communication researchers to effectively analyze new-media consumers and argued that U&G theory was highly appropriate due to the participation and interaction between users. In a later study, Clavio and Kian (2010) used the theory to examine a retired female athlete's Twitter followers. That study uncovered the Twitter users' goals for following the athlete, which overwhelmingly related to fan-based motivations rather than business-related or interactive needs. They encouraged future researchers to continue focusing on demographic information of new-media consumers and to develop a stronger understanding of the aspects of new-media messages that have the greatest appeal to sport consumers.

Other scholars have similarly used U&G theory to examine consumers of various new-media platforms such as Myspace (Raacke & Bonds-Raacke, 2008), blogs (Leung, 2013), Facebook (Leung, 2013; Raacke & Bonds-Raacke, 2008), and social media in general (Whiting & Williams, 2013). Raacke and Bonds-Raacke examined users of the social-networking sites Myspace and Facebook, finding that the most popular reasons for using these sites were keeping in touch with friends (both old and current), meeting new friends, and posting and looking at photos. Similarly, Leung examined users of multiple platforms and concluded that two primary motivators existed among social-media users: the need to belong, and the "socio-psychological need for self-presentation management and relationship construction" (p. 1005). Leung also encouraged future U&G research on social media to include greater generational diversity of participants. Whiting and Williams successfully included a wider generational sample than previous studies by conducting in-depth interviews with social-media users age 18–56 to determine the U&G of social media for these individuals. Their results revealed 10 themes relating to social-media use, and the most prevalent of these were social interaction, information seeking, pass time, and entertainment.

While the U&G research presented in this section has begun to develop a more holistic understanding of why people use social media, and the sport research to date has begun to uncover why sport consumers (fans) use social media, little is known about sport participants and their use of new media for sport-related purposes. This study seeks to begin filling the gaps in the U&G literature that relate to specific sport-related new-media use. The following sections provide a deeper understanding of the research that has been conducted to date on sport-participant communities and online communities in general.

## **Sport-Participant Communities**

Researchers have established that leisure settings such as sport clubs and teams have the ability to create ongoing relationships among participants, which can lead to social bonding (Kelly & Godbey, 1992), enhanced quality of life (Kraus, 1990), and stronger communities in general (Glover & Stewart, 2006). Lyons and Dionigi (2007) studied communities of masters athletes who competed in the 2001

Australian Masters Games and discovered four themes relating to the participants' sense of community with their peers: shared sporting interest, comrades in continued activity, relevant life purpose, and giving back. Regarding shared sporting interest, the researchers noted the uniqueness of their finding that participants "felt a close connection to other active older adults despite temporal and spatial distances" (p. 385), as prior research had indicated that shared interest was not enough to develop a sense of community (e.g., Maffessoli, 1996). In addition, the participants in Lyons and Dionigi's study perceived themselves and their masters games peers as being unique in their status as active adults as opposed to leading sedentary lifestyles, which corresponded to the theme of comrades in continued activity. Similar to Leung's (2013) assertion that more U&G research be conducted on different generations of adults, Lyons and Dionigi also called for future sport-participant-community research to examine a wider generational sample.

Few known studies to date have focused on online or new-media communities of sport participants. Of the research that currently exists, much has focused on runners. Eagleman and Hack (2011) surveyed distance runners in a 31-event road-race series and found a positive correlation between the amount of time spent on running-related social media and participation frequency in races. Furthermore, the race series had its own social-media presence on a Web site called Ning.com that brought together participants in an exclusive online space. Strong positive correlations existed between the number of races run per year and the frequency of visiting the series' Ning.com page. Regarding age or generational differences, younger participants were found to be much more active on social media than older participants.

Mahan et al.'s (2015) research supported the findings of Eagleman and Hack (2011), as they found runners' use of running-related social media resulted in an increase in the number of miles run per week, indicating a correlation between running-social-media use and participation frequency. In addition to this finding, Mahan et al. found that increased use of running-related social media also resulted in enhanced perceptions of life satisfaction. The authors noted that while new-media platforms have changed the way people network, these online networks must also provide the social support needed by participants to serve as a meaningful contributor to life satisfaction.

## Online Communities

Along with the limited literature that exists on sport participants' online communities, research in other fields has also begun to explore these communities and the associated benefits and challenges they pose for group members. Wang, Chung, Park, McLaughlin, and Fulk (2012) attempted to understand general participants of online communities using the technology-acceptance model. In their examination of 537 U.S.-based online community participants, they discovered three factors that influenced online-community participation. These included Internet self-efficacy, perceived community environment, and intrinsic motivation. Findings indicated that the greater a user's Internet self-efficacy, the greater his or her perceived ease of use of online communities. Both the perceived quality of online-community environment and the user's intrinsic motivation for using online communities positively predicted the user's perceived ease of use and perceived usefulness of online communities.

Hede and Kellett (2012) examined online brand communities in the tourism sector and concluded that brands wishing to use online communities among their consumers should also focus on traditional live events/communities, as the two are synergistic and cannot be viewed as separate from each other. Furthermore, they stressed the importance of new-media content producers' carefully considering "what information is important, which platform is most appropriate and when information dissemination is most appropriate for each platform" (p. 248) to best encourage ongoing dialogue between consumers using these new-media platforms.

Some researchers have begun examining users of specific new-media platforms. Waldron (2011) studied the role of YouTube among online music communities. This study pointed out that for new-media consumers who regularly interact with online groups, being a member of the online community can be just as meaningful as membership in an off-line community. In addition, Waldron presented evidence that YouTube, as a specific new-media platform, was an effective tool allowing members of online music communities to learn, discuss, and add knowledge. Other researchers have also examined specific new-media outlets and reported on their uses by online-community members. For example, Joinson (2008) analyzed U&G of Facebook members and concluded that for this specific platform the most prevalent U&G included social connection, shared identities, content, social investigation, social-network surfing, and status updates. Furthermore, the quest for social connection led to increased frequency of use on the site, while content gratification led to a greater amount of time spent on Facebook.

These research findings provide a base from which to conduct further research on online-community members' U&G of new media. The following sections present the research questions used to guide the current study, as well as the method employed.

## Research Questions

Based on U&G theory, previous sport-participant and online-communities research, and the study's purpose of examining masters gymnasts' use of gymnastics-related new media in relation to their sport participation, the following three research questions and one subquestion were formed:

**RQ1:** How do masters gymnasts use new media in relation to their sport participation?

**RQ2:** What motivates masters gymnasts to participate in online communities?

**RQ2A:** Do motivational differences exist based on demographic variables?

**RQ3:** What impact do masters gymnasts believe new-media use has on their participation in the sport?

## Method

To answer the study's research questions, an online survey was employed in late 2013. Because there is no set age to define a masters gymnast, I consulted the policies of countries in which established national masters gymnastics competitions exist and determined that participants age 20 years or over (Australian Masters

Games, 2015; New Zealand Masters Games, 2015) were deemed eligible to take part in this study. The survey consisted of a series of six demographic questions, after which participants were asked questions about their gymnastics background, including their participation history and competitive history. Next, respondents answered questions about their new-media use relating to gymnastics, and Seo and Green's (2008) Motivation Scale for Sport Online Consumption (MSSOC) was used to determine participant motivations for using new media in relation to their gymnastics participation. The MSSOC, a measure of online sport consumers' motives for using sport Web sites, measures the following dimensions: information, entertainment, interpersonal communication, escape, pass time, fanship, team support, fan expression, economic, and technical knowledge. The team-support and economic factors were deemed irrelevant to the purpose of this study and were therefore not measured. All eight factors achieved the acceptable minimum reliability of .70 based on Cronbach's alpha. Mean scores and standard deviations for each item, along with alpha levels for each component of the scale, can be viewed in Table 1.

Finally, respondents answered three open-ended qualitative response questions about their new-media use related to their masters gymnastics participation.

## Participants

Participants were recruited using a snowball sampling method. I posted a link to the survey on social-media sites such as Twitter, Facebook, and LinkedIn, and masters gymnastics participants, organizations, and stakeholders retweeted and shared the link with their friends and followers. In addition, the Gymcastic podcast, a weekly gymnastics podcast available via iTunes, mentioned the survey during one of its episodes and directed interested participants to their social-media accounts for the survey link. The survey was open to anyone in the world age 20 or over who participated in masters gymnastics.

A total of 164 usable surveys were collected from respondents in 17 countries: Argentina, Australia, Bermuda, Canada, Croatia, Denmark, England, Ireland, Netherlands, New Zealand, Portugal, Scotland, Singapore, South Korea, Spain, Sweden, Switzerland, and the United States. The majority of respondents were from the United States (62.9%), followed by Australia (9.7%), Canada (9.1%), England (6.9%), New Zealand and the Netherlands (1.7% each), Spain, and Ireland, (1.1% each), and each of the other countries accounted for 0.6% of the respondents. In terms of age, 67.5% were in the 20–29 age group, 23.4% 30–39, 5.7% 40–49, 2.8% 50–59, and 0.6% were over the age of 60. The respondents over age 60 were later recategorized into a 50-and-older category along with those in the 50–59 age group to conduct statistical analysis based on age. Regarding gender, 65.2% of the participants were female, while 34.8% were male. The respondents indicated their educational background, and 79.4% had earned a bachelor's degree or higher, 15.4% had attended some university, 4.6% had a high school diploma, and 0.5% indicated that they had attended some high school. Finally, in terms of annual household income, 21.7% indicated an income of \$100,000 USD or higher, 14.3% were in the \$80–100,000 range, 10.3% were in the \$60–80,000 range, 18.3% were in the \$40–60,000 range, 18.3% were in the \$20–40,000 range, 15.4% were in the \$0–20,000 range, and 1.7% indicated they had no household income.

**Table 1 Construct Reliability and Internal Consistency of the Motivation Scale for Sport Online Consumption**

Factor	“I use new media for masters gymnastics–related information because . . .”	<i>M</i>	<i>SD</i>	$\alpha$
Information	It provides quick and easy access to large volumes of masters gymnastics information.	5.21	1.69	.792
	I am able to obtain a wide range of gymnastics information.	5.73	1.40	
	I can learn about things happening in the gymnastics world.	5.89	1.43	
Entertainment	New media is exciting.	4.92	1.53	.855
	New media is cool.	4.57	1.58	
	New media is amusing.	4.46	1.62	
Interpersonal communication	It shows me how to get along with others who are interested in masters gymnastics.	3.96	1.74	.813
	I won't be alone as a masters gymnast.	4.22	1.64	
	It allows me to meet other masters gymnasts, which helps me cope with personal problems.	3.03	1.63	
Escape	It allows me to escape from reality.	3.82	1.71	.812
	It allows me to enter a nonthinking, relaxing period.	4.11	1.65	
	I can forget about work.	4.08	1.77	
Pass time	It gives me something to do to occupy my time.	4.34	1.60	.755
	Doing so passes the time away, particularly when I'm bored.	4.25	1.74	
	I visit these new-media sites during my free time.	5.10	1.60	
Fanship	I consider myself a fan of gymnastics.	6.15	1.28	.854
	I am a huge fan of gymnastics in general.	6.01	1.45	
	I consider myself to be a big fan of certain gymnasts or teams.	5.18	1.94	
Fan expression	I can express myself and my thoughts about masters gymnastics.	4.30	1.78	.983
	I can form my own opinions about masters gymnastics through new media.	4.49	1.52	
	I enjoy interacting with other masters gymnasts on the Web.	3.89	1.80	
Technical knowledge	I want to know the technical aspects of gymnastics.	5.67	1.52	.776
	I want to know the rules of gymnastics.	5.03	1.83	
	I want to know gymnastics strategies.	4.91	1.74	

## Data Analysis

All quantitative data were analyzed using Statistical Package for the Social Sciences (SPSS) version 22. Descriptive statistics, independent-sample *t* tests, and one-way ANOVAs were calculated using this software. The qualitative data were analyzed using thematic analysis, which involved my reading each response multiple times, assigning keywords to the responses, and then grouping the keywords to develop the broader emergent themes. According to Saldaña (2009), themes are patterns, trends, or recurring concepts within data, and thematic analysis allows categories or themes to emerge from the data as the analysis is conducted. Braun and Clarke (2006) explained that it allows researchers to describe data sets in rich detail and also allows for deeper analysis and interpretations of topics. Peer debriefing was conducted with a sport-management scholar independent from the study to establish trustworthiness (Lincoln & Guba, 1985).

## Results

### New-Media Use in Relation to Sport Participation

The first research question sought to determine how masters gymnasts use new media in relation to their sport participation. To answer this question, both quantitative and qualitative data were analyzed. The quantitative survey results revealed that YouTube and Facebook were the overwhelming platforms of choice, with 43.4% of respondents indicating that they used YouTube specifically for masters-gymnastics-related purposes and 42.5% responding that they used Facebook. Aside from these two platforms, the following new media were used: blogs (28.1%), Twitter (23.9%), news Web sites (20.5%), and message boards (16.7%). With regard to the qualitative data, two prominent themes emerged from the open-ended responses, indicating that participants primarily used new media for the purposes of information gathering and interaction. In terms of the information-gathering theme, respondents indicated that they used videos from YouTube to learn technical aspects of the sport. For example, one respondent wrote, "I particularly enjoy watching videos of other adult gymnasts, to see what is possible." Along with learning technical aspects of the sport, another commonality within this theme was that respondents used Web sites to learn practical information about where and when adult gymnastics classes were available. One respondent wrote, "I love Gymnastike, which has an adult gymnastics page and listing of adult gymnastics programs throughout the U.S." In terms of the interaction theme, participants reported that they primarily used new media to interact with gymnasts from their own training groups. To illustrate the interactions between members of in-person training groups, one respondent indicated that the gymnastics club where she trained had a private Facebook group. Of this she said, "It is a tight-knit group and serves as a laid-back place to interact outside of training." Another respondent said she belonged to her training group's Facebook page and said, "I don't really interact with other masters gymnasts that I don't know personally." Conversely, some respondents indicated that they interacted with those whom they did not know personally to learn skills and the technical aspects of the sport. One respondent said, "Facebook specifically has been my main community for masters gymnastics."

It allows me to share information easily with others who also participate. We have created a group for ourselves where we discuss/share general and masters gymnastics information.”

## Motivation to Participate in Online Communities

The second research question asked what motivates masters gymnasts to participate in online communities. Results from the MSSOC scale revealed that fanship ( $M = 5.78, SD = 1.56$ ), information ( $M = 5.61, SD = 1.50$ ), and technical knowledge ( $M = 5.20, SD = 1.69$ ) were the three strongest motivators, with all three falling between the *somewhat agree* and *agree* range on the scale. Following these three motivations were entertainment ( $M = 4.65, SD = 1.58$ ), pass time ( $M = 4.56, SD = 1.65$ ), fan expression ( $M = 4.22, SD = 1.70$ ), escape ( $M = 4.00, SD = 1.71$ ), and interpersonal communication ( $M = 3.74, SD = 1.67$ ).

The second research question also contained a subquestion asking whether motivational differences existed based on the respondents' demographic variables. ANOVA results revealed statistically significant differences based on age, gender, and educational background. First, in terms of age, motivational differences existed for fanship,  $F(3, 163) = 4.52, p = .005$ ; technical knowledge,  $F(3, 163) = 4.66, p = .004$ ; and pass time,  $F(3, 163) = 6.00, p = .001$ . Tukey post hoc tests revealed that for fanship, significant differences existed between those age 50 and over ( $M = 2.67, SD = 2.42$ ) and all of the other age groups, 20–29 ( $M = 5.42, SD = 1.88$ ), 30–39 ( $M = 4.94, SD = 1.80$ ), and 40–49 ( $M = 5.56, SD = 1.50$ ), indicating that the younger age groups were more highly motivated as fans. In terms of technical knowledge, significant differences existed between the 50-and-over group ( $M = 2.83, SD = 2.04$ ) and the 20–29 ( $M = 5.18, SD = 1.76$ ) and 40–49 ( $M = 6.11, SD = 0.93$ ) groups, indicating that the younger groups were more strongly motivated by gaining technical knowledge. Finally, in terms of pass time, significant differences existed between the 20–29 age group ( $M = 4.54, SD = 1.66$ ) and the 30–39 ( $M = 3.69, SD = 1.70$ ) and 50-and-over ( $M = 2.33, SD = 1.75$ ) groups, indicating that the younger group was more likely to use masters-gymnastics-related new media to pass the time than the other groups.

The next significant demographic-based difference occurred with gender. Independent-samples  $t$  tests revealed significant differences between men and women for fanship, information, escape, and pass time, with women exhibiting greater motivations for all four categories. See Table 2 for full results of these differences.

Finally, significant motivational differences existed between respondents based on level of education. ANOVA results revealed differences in interpersonal communication,  $F(4, 163) = 3.98, p = .004$ ; escape,  $F(4, 163) = 6.86, p = .000$ ; and fan expression,  $F(4, 163) = 5.44, p = .000$ . In terms of interpersonal communication, Tukey post hoc results revealed significant differences between those whose highest education level was a high school diploma ( $M = 5.13, SD = 1.72$ ) and those with some college education ( $M = 2.77, SD = 1.55$ ), a bachelor's degree ( $M = 2.84, SD = 1.65$ ), a master's degree ( $M = 3.07, SD = 1.34$ ), and a terminal degree ( $M = 3.14, SD = 1.63$ ). These results indicated that those with higher education levels used new media for interpersonal communication to a lesser degree than those whose highest educational attainment was a high school diploma. Regarding escape, post hoc results revealed significant differences

**Table 2 Gendered Motivational Differences for Consumption of Masters-Gymnastics-Related New Media**

Category and significance	Male	Female
Fanship: $t(163) = -2.94, p = .004$	$M = 5.62, SD = 1.78$	$M = 6.31, SD = 1.04$
Information: $t(163) = -3.43, p = .001$	$M = 5.20, SD = 1.82$	$M = 6.10, SD = 1.20$
Escape: $t(163) = -2.24, p = .026$	$M = 3.49, SD = 1.69$	$M = 4.22, SD = 1.77$
Pass time: $t(163) = -2.62, p = .010$	$M = 3.54, SD = 1.96$	$M = 4.39, SD = 1.67$

between the high school diploma group ( $M = 5.50, SD = 1.06$ ) and those with a bachelor's degree ( $M = 3.66, SD = 1.67$ ), indicating that those with a high school diploma were more motivated to use new media for escape purposes. In addition, differences existed between those with a terminal degree ( $M = 5.79, SD = 1.05$ ) and the following groups: some college ( $M = 3.65, SD = 1.93$ ), bachelor's degree ( $M = 3.66, SD = 1.67$ ), and master's degree ( $M = 4.21, SD = 1.68$ ). These results indicated that those with a terminal degree were motivated to use new media for escape purposes to a significantly greater degree than the three other groups listed. As for fan expression, significant differences were found between the high school diploma group ( $M = 5.50, SD = 1.19$ ) and those with a bachelor's degree ( $M = 3.45, SD = 1.82$ ), indicating that those with a high school diploma were more motivated by fan expression. In addition, a difference existed between the terminal-degree group ( $M = 5.29, SD = 1.54$ ) and those with a bachelor's or master's degree ( $M = 3.80, SD = 1.45$ ), indicating that those with a terminal degree were more highly motivated to consume because of fan expression.

### New Media's Impact on Sport Participation

The third research question asked what impact masters gymnasts believed new-media use had on their participation in the sport. The data used to answer this question came from participants' open-ended responses to the question, "How have gymnastics-related new media sites (e.g., Web sites, blogs, social media, message boards) impacted your experience as a masters gymnast?" Three prominent themes emerged from the data: training motivation, technical knowledge, and camaraderie. Table 3 presents examples of responses that fit within each of these three themes.

Responses falling into the training-motivation theme indicated that respondents were motivated by seeing videos of other masters gymnasts performing or by reading articles or firsthand accounts about masters gymnasts and their experiences participating in the sport. The responses relating to technical knowledge suggested that masters gymnasts gained knowledge about the sport and specific gymnastics skills by watching videos and interacting with gymnasts and/or coaches in online-community settings. Finally, the camaraderie theme highlighted a sense of community that masters gymnasts felt with their peers via interactions on new-media platforms.

**Table 3 Perceptions of New Media's Impact on Masters Gymnastics Participation**

Theme	Sample responses
Training motivation	<ul style="list-style-type: none"> <li>• "I will often see a new or unique skill performed on YouTube or Facebook and that gives me motivation and desire to attempt these skills."</li> <li>• "They [new media] reaffirm that it is, in fact, possible to do gymnastics at the age of 80."</li> <li>• "I read a few gymnastics blogs that inspire/help my own gymnastics."</li> </ul>
Technical knowledge	<ul style="list-style-type: none"> <li>• "Watching gymnastics on YouTube and Tumblr has taught me loads of things I would have never had access to otherwise."</li> <li>• "I love seeing how people in other countries work and their techniques."</li> <li>• "YouTube has been tremendously helpful, as I don't really have access to coaching, so if I want to learn a drill or tips for a skill, it's the first place I go."</li> </ul>
Camaraderie	<ul style="list-style-type: none"> <li>• "It's nice to seek advice, training tips from others in my shoes and others ahead of myself."</li> <li>• "It shows me that there are more masters gymnasts around the world; I'm not alone."</li> <li>• "It helps me connect with my former teammates and other adult gymnasts, which helps keep my motivation up."</li> </ul>

## Discussion

This study contributes to the body of knowledge relating to sport-participant communities in the field of sport management/communication and to the existing U&G literature, both of which will be explained in greater depth in this section. This study was unique in its mixed-methods approach using U&G theory, which responded to Ruggiero's (2000) call for more U&G qualitative and mixed-methods approaches. In addition, it included a great deal of generational diversity, with respondents ranging in age from 20 to 50+, which answered Leung's (2013) call for greater generational diversity in U&G research, as well as Lyons and Dionigi's (2007) suggestion for greater age diversity in research on sport-participant communities.

In terms of this study's contributions to the sport management and communication literature, several findings stand out and merit further discussion. First, from the open-ended qualitative response questions it was both interesting and somewhat surprising to learn that building relationships and/or an online community with other masters gymnasts was not important to most of the respondents, who indicated that they interacted online only with those from their in-person training groups. This was a departure from Lyons and Dionigi's (2007) finding that masters participants felt a sense of close community with their peers despite the temporal and spatial distances between them. It was also surprising given masters gymnastics' relatively recent emergence as a popular participatory sport and the notion that online communities would be a vital way for these participants to further engage with the sport. This finding did, however, support Hede and Kellett's (2012) assertion

that live or in-person communities are synergistic with online communities. This highlights an opportunity for established sport-participant groups to complement their in-person communities with online communities via new-media platforms. In addition, although gymnastics is an individual sport in which leagues and teams do not often exist, it appears that adult participants still form groups or communities based on their participation in the sport, which can lead to enhanced quality of life and stronger communities in general (Glover & Stewart, 2006; Kraus, 1990). This finding also extended beyond the work of Mahan et al. (2015), who suggested that highly identified runners may engage in social behaviors such as “friending” other runners on Facebook, but their study did not actually examine or measure participants’ use of online communities to develop such sport-related online social networks.

Some findings of this study were reflective of those of both Eagleman and Hack (2011) and Mahan et al. (2015), as the results from the open-ended qualitative response questions also indicated that online-community participation led to greater motivation to partake in masters gymnastics. This knowledge, combined with the previously discussed findings about the synergy between in-person and online communities, presents a great opportunity for sport clubs and participatory sport organizations to strengthen the experiences of their members by offering formalized online-community spaces via new-media platforms on which participants can interact. If participation in online communities leads to greater motivation to participate in the sport, the development of online communities could potentially help sport clubs and organizations retain members and strengthen those members’ sense of community with the club itself, leading to overall greater loyalty. Sport clubs that employ communications staff members would be wise to use these employees to creation and maintain such online participant communities. As Mahan et al. suggested, though, these online communities must cater to the needs of the participants so as to enhance their overall life satisfaction. Therefore, it is important for sport clubs to develop an understanding of their participants’ needs in such an online space and develop the online communities accordingly.

Another important finding from this study was that information gathering and technical information were both important aspects of new media for masters gymnasts. Results from the MSSOC scale indicated that information and technical knowledge were the second- and third-greatest motivators for masters gymnasts to participate in online communities, respectively, and results from the qualitative portion of the survey indicated once again that technical knowledge was a primary reason that respondents used new media in relation to their sport participation. This finding filled a gap from Mahan et al.’s (2015) research, as they did not examine the actual ways in which sport participants used new media in relation to their sport. Echoing Waldron’s (2011) assertion that YouTube allowed musicians to learn, discuss, and add knowledge, the participants in this study also indicated that YouTube was a critical tool for learning technical aspects of the sport and understanding how to perform new skills. As respondents often indicated that they found these resources through Internet searches rather than through specific Web sites or new-media accounts, these findings indicate an opportunity for gymnastics clubs and organizations to develop more masters-specific new-media accounts and outlets to fulfill the technical-knowledge and information needs of masters gymnasts. Existing new-media sites dedicated to gymnastics could also establish greater awareness

among masters gymnastics communities by expanding their current content offerings to include more information about masters gymnastics.

In terms of the study's theoretical contributions, as previously noted it answered Ruggiero's (2000) call for more qualitative and mixed-method approaches using U&G theory. Beyond this, however, it also contributed to U&G literature by focusing on a broad generational range of participants (Leung, 2013) and focused on the demographic information of new-media consumers, which Clavio and Kian (2010) encouraged in their examination of a retired athlete's Twitter followers. Indeed, this study used demographic data to better understand the aspects of new-media messages that were most appealing to sport participants, specifically, masters gymnastics participants. This information contributes to the existing U&G literature relating to user demographics. In this study, age, gender, and educational background were all found to be statistically significant in relation to participants' motivations for using masters-gymnastics-related new media. New-media content producers can use these findings to appeal to and target certain demographic groups. For example, results from the MSSOC scale indicated that female masters gymnastics participants were significantly more motivated than male participants to consume masters-gymnastics-related new media due to fandom, information, escape, and pass time. Web sites or social-media accounts attempting to draw in a larger female audience could use this information to tailor their content to them. Conversely, these findings based on gender might also indicate that men are less motivated to consume masters-gymnastics-related new media than women because the new-media outlets that currently exist cater more to women by offering more information about women's gymnastics. Although the content of masters-gymnastics new-media outlets was not analyzed for this study, future research examining this content could provide insights as to whether current content caters to one gender over the other.

## Conclusion

While the findings of this study may be useful to a variety of sport organizations and groups, it should be noted that they are unique to masters gymnastics participants, and therefore the results cannot be generalized to other sports or age groups. The study also had other limitations. First, participants were recruited online via gymnastics new-media outlets. Therefore, they were likely already familiar with masters-gymnastics new-media outlets and used such outlets. Masters gymnasts who were not familiar with such outlets were not given a chance to participate in the study. Future researchers who wish to eliminate this limitation are encouraged to recruit participants directly from the masters sport clubs instead of using an online method. Next, although the participant sample was quite broad in its demographic makeup, the majority of respondents were from the United States and fell into the youngest age group (20–29). Future research would benefit from recruiting an even more diverse participant sample. Finally, although participants were from 17 different countries, the data were not analyzed to uncover differences between respondents based on their country of residence.

Several future research opportunities stem from this study. First, while the study was limited to masters gymnastics participants, future research could examine

athletes from a wider range of sports to determine whether differences exist between sports. Specifically, it would be interesting to note if participants from well-established masters sports such as swimming or athletics differ in their online-community U&G from those in emerging masters sports such as gymnastics, or if athletes from team sports (e.g., basketball, volleyball) differ from individual-sport athletes. A second idea for future research is to examine the online communities of established in-person training groups to develop a better understanding of how virtual online communities affect their participation in the sport and how the online communities complement or affect their in-person interactions. Finally, an examination of masters-specific events such as the World Masters Games could determine how participants consume new media offered by these events (e.g., the World Masters Games official Facebook page or Twitter feed) and how this consumption affects their participation in the event.

This study contributes to both the sport management/communication discipline and the existing literature using U&G theory, and its qualitative contributions are unique to both of these areas. Researchers can use its findings to develop a better understanding of online communities in general or communities of sport participants, and to understand U&G of online communities through both a quantitative and a qualitative lens. In addition, sport clubs and organizations can use the findings to develop new online communities among participants or to strengthen existing online communities, which may have positive effects on the clubs in terms of retaining current participants and strengthening participants' loyalties to the club or organization.

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