Olympic and Paralympic Social Media Networks

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Executive Summary

The Olympic Games bring nations from across the world together and provide a platform for the world's best athletes to compete and represent their country. One unique part of the Olympic Games is the event that follows immediately after: the Paralympics. The Paralympic Games provide the same platform and give disabled athletes a chance to represent their country in front of the world.

This report analyses the digital conversation surrounding US participation in both the Olympic and Paralympic games on various social networks: Twitter, Wikipedia, and Youtube. After examining the data on all three of these platforms, and the user-generated content, we noticed a trend of Paralympic marginalization. Across all three sites, we found that the Paralympic games and Paralympians had a much smaller presence than their Olympic counterparts. We found that the two Twitter networks had similar structures and that they were both centered around Team USA - the colloquial name for the United States Olympic & Paralympic Committee. They both share a common vocabulary and talk about the achievements of elite athletes. TeamUSA also was the central node in the Wikipedia network, but had little prominence in either of the YouTube networks. It appears that the Paralympic social network is partially a subgroup of the Olympic network. Information and conversation flows from the Paralympic Games to the Olympic Games, but not the other way around. Major participants in the Paralympic social network are also members of the Olympic social network, but some key members of the Olympic social network are not even participants in the Paralympic network.

Introduction

The report was started in January of 2020 before the Tokyo 2020 Summer Olympic games were postponed to 2021 due to public health concerns. Team USA is in an unprecedented position: they now have another year to prepare for the summer games, and the tools to look objectively at the social conversations surrounding both games. With more time and new tools, Team USA has a chance to include Paralympians and give them a larger share in the Olympic conversation than they get currently.

When we set out to analyze the social networks around the Olympic and Paralympic games, we wanted to see how the two networks compared to one another. We were wondering if the size of these networks would differ much and if that size difference would result in different characteristics. How much would the two networks resemble one another; would the key players be different from one network to another? Would they be discussing different things? We also wondered how similar these two networks would be. After all, the Olympic and Paralympics clearly have a lot in common, as both are opportunities for elite athletes to represent their country. Would information flow between both networks, or would it go in one direction? We wanted to get an overall picture of both discussions and how they compared to each other.

Twitter Social Network Analysis

In order to search for the most relevant data related to each community and the conversations on Twitter in anticipation of the upcoming Olympic and Paralympic games, we created a boolean statement that would focus on the most relevant tweets. To get the data specific to the Olympics, our boolean was:

> *(#TeamUSA OR @TeamUSA OR "Team USA" OR USA) AND (#olympics OR olympics OR olympic OR #Tokyo2020 OR Tokyo2020 OR Tokyo OR Olympian OR "Summer Olympics").*

This statement ensures that all tweets that are searched include something about Team USA and something about the Olympics. This data was collected from January 1, 2020 to January 31, 2020. To pull data specific to the Paralympics, the boolean statement we used was:

> *(#TeamUSA OR @TeamUSA OR "Team USA" OR USA) AND (paralympic OR #Paralympics OR Paralympics OR Paralympian OR "Summer Paralympics").*

This statement returned tweets that were specific to Team USA and the upcoming Paralympics, from September 1, 2019 to February 5, 2020. We had to extend the time range on the Paralympic data because the month of January 2020 did not give us enough data to perform analysis with meaningful or comparable results. Even with this longer window of time, the Olympic data set had 7108 users, while the Paralympic set was much smaller with only 2766 users.

Before beginning analysis, we sorted through each set to remove any tweets that were not related to the 2020 Olympics and Paralympics. For example, there were many tweets that talked about pee-wee Olympics or TeamUSA Hockey – a national youth hockey organization – these tweets were not a part of the conversation around the 2020 Tokyo Olympics, and their users may not be relevant to the social network we were investigating.

Findings: Olympic Network

Our initial analysis began with the Olympic social network. This network of over 7000 users centered around several large accounts. The Team USA Olympic social network showed a great amount of connectedness between groups. The strongest connection is between the TeamUSA group, Olympic Coverage group, Youth Olympics group, the Sports group, and the Future Coverage group. This is where the most interaction between users is occurring. The sixth group contains the isolates, which provided a lot of conversation about TeamUSA and Tokyo2020 but are not connected to any other groups. The 7th and 8th groups represent sports teams, news anchors, athletes, and other individuals that are making

meaningful connections with people inside their group. These groups are connected to the bigger groups through weak ties and key bridges.
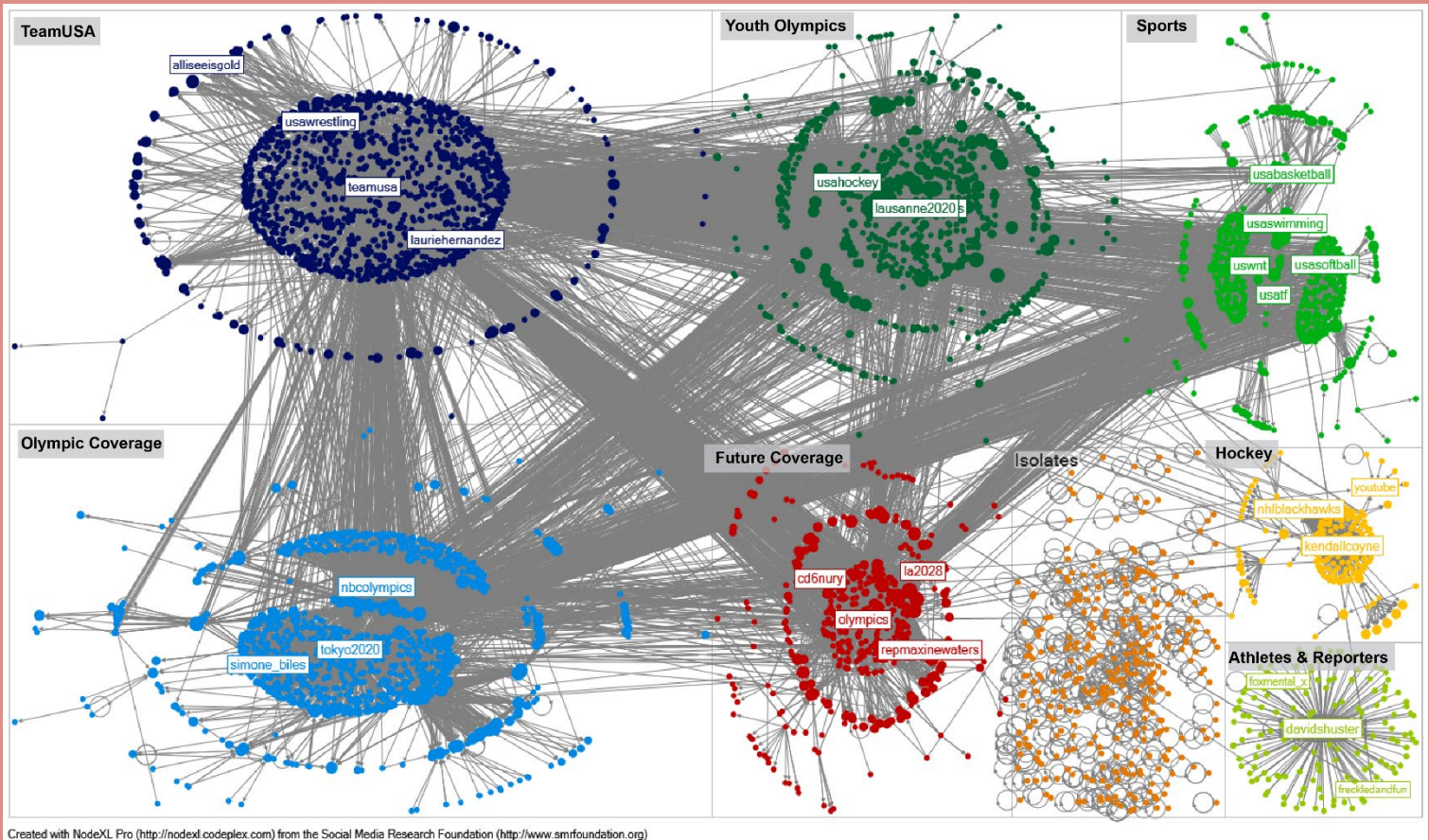
Figure 1.1 - Team USA Olympic Twitter Network. Filtered network of the conversation about Team USA and the Tokyo Olympics. Groups are generated after filtering and colored by NodeXL. Vertex size is based on In-Degree

The users that have labels in each group have the highest degree and are the hubs of their group. The TeamUSA group represents the people that are interacting the most with the Olympic conversation and the TeamUSA account. For this group, the hub is @TeamUSA, which has an in-degree of 2500. Surrounding it are athletes, major sports teams, and reporters. The Olympic Coverage group and the Youth Olympics group have similar types of users than in the TeamUSA group. Their hubs are large accounts that tweet directly about the Olympics. The remaining hubs are sports accounts and athletes.

This network has a strong reliance on specific large accounts and the bridges that connect each cluster. The density of the social network is 0.0003. It has a modularity of .5, which means there are connections

that overlap and are connected, but have separation. Each community is unique and separated by the type of accounts involved. There are 12,842 unique edges in the social network, which accounts for over half of the total edges. From this data, we can see that the large groups are interacting with each other and are connected by the various users who mention them in their tweets.

The majority of the tweets involved mentions of the largest accounts. This means that people were retweeting and replying and therefore mentioning the big accounts like @TeamUSA. Looking at the Hockey group, the conversation surrounded hockey, hence the name of the group. The Sports group, however, while still connected by the Olympic conversation, is a cluster of US sports accounts

## Findings: Paralympic Network

Like the Olympic games, there is clearly a conversation on Twitter about the Paralympics, although it is admittedly much smaller. Compared to the Olympic dataset we collected, even with a longer time-range, the Paralympic Social Network on Twitter is about 40% the size of the Olympic one. It has 1.559 unique edges out of 10,231 total edges. The graph has a low density of 0.0007, which means that the members of the network are not very interconnected. When compared to the larger Olympic network, 0.0003, it is not very surprising that this density is larger, since the network is much smaller. The network has a modularity of 0.36, which is considered a medium level of modularity. This means that the various clusters have a moderate amount of overlap but are still partly distinct.

There are a few hubs in this network, as well as several bridges. Far and away, the most important user in this network is @teamusa. It serves as both the major bridge and the major hub of the network since it has both the highest betweenness centrality and the highest degree centrality (in-degree and out-degree). A high degree centrality makes the user a hub and a high betweenness centrality means the user is a bridge. TeamUSA is both, which makes sense as it is the official page for the USA's Paralympic athletes. Interestingly, while it is the major bridge and hub of the network, it is not the user with the most followers. Users like @youtube, @nytimes, and @espn have more followers. However, they are not highly connected members of this network, because, at the time the data was collected, they were only occasionally engaging in the Paralympic discussion.

Other important users expectedly include @usparalympics and @paralympics. Unexpectedly, @lisaleslie (a basketball player in the WNBA) and @mr_jerome_avery (a Paralympic guide runner) are both important bridges in the network. Also, @drb1019 is a Paralympic runner and is one of the major hubs,

with an in-degree of 127 (the 7th highest in the network) but has an out-degree of 0, meaning he has not initiated any connections with members of this network.
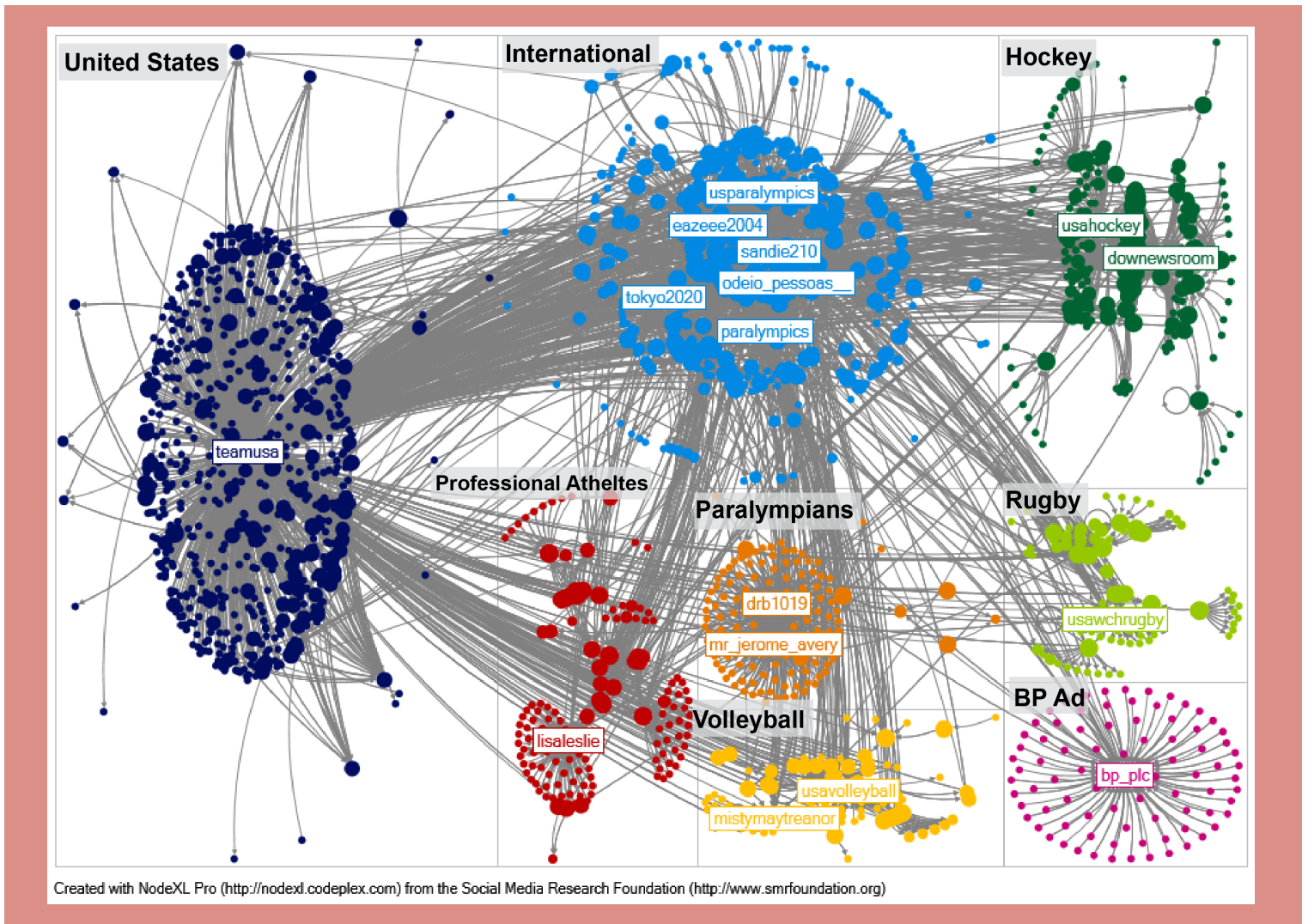
Figure 1.2 - Team USA Paralympic Twitter Network. Filtered network of the conversation about Team USA and the Tokyo Paralympics. Groups are generated after filtering and colored by NodeXL. Vertex size is based on In-Degree.

In our analysis of this network, we broke the network up into groups by clusters. The visualization shows the top nine groups by size, eight of which were significantly more connected than the rest of the smaller groups. Group 4 is the exception, as it is the groups of Isolates. We included it because despite being unconnected, those users are still relevant to the discussion of the Paralympics. We excluded the smaller groups to keep the visualization readable.

As stated before, this network is moderately modular (0.36), and so distinct groups can be seen that have a good amount of overlap. For example, Group 1, Team USA, is the biggest and is centered on the user @teamusa, and most of the group is focused on the athletes from the United States. Group 2 (International) is smaller but denser, and more users in this cluster are centered on the official and international Paralympic games, rather than specifically the connection to the USA. The Professional Athletes and Paralympians groups are centered around athletes (Lisa Leslie, Jerome Avery, and David Brown) rather than organizations. Groups 7 (Volley Ball) and group 8 (Rugby) have specific sports associations like USA swimming, rugby, volleyball, and soccer as the main hubs. The 9th group, BP Ad, is a discussion centered around an advertisement collaboration between the corporation BP and Paralympian Tatyana McFadden.

Across the entire network, the most common hashtags are things like #paralympics, or #paralympian which were part of our boolean search, but #usahof was also a popular hashtag in group 8, as several Paralympians were getting kudos for their inductions. The hyperlinks were also very similar across the network, mostly linking out to articles about the Olympic/Paralympic Games in publications like the New York Times or ESPN.

Discussion

We were quickly able to learn that the community around the Paralympics is much smaller than the Olympic community, but that a smaller network means a more densely connected group of users. It appears from our analysis that the Paralympic network is in part a subgroup of the Olympic one. The major hubs and bridges in the Paralympic social network are also members of the Olympic social network, but they are not as important or connected in the larger one. Additionally, there are members of the Olympic social network who are not members of the Paralympic network. One of these more interesting users is, for example, the NBC account (@nbcolympics) for Olympic coverage. While they own the rights to broadcast both the Olympics and Paralympics, they are only a major player in the Olympic community. This is in contrast to the official Team USA account which is the official twitter account for "the US Olympic & Paralympic Committee" and is a very essential part of both networks.

Twitter Semantic Network Analysis

Using words as vertices instead of people, we created a semantic network using the tweets from the social network. For the Olympic semantic data set, we were able to group words into clusters after a process of eliminating unimportant words. This process took several attempts and is essential to having a significant final analysis. By removing words and edges, we are able to see the words that make up the network, instead of being distracted by words that inherently show up more frequently such as "Olympic" or "USA"

Figure 2.1 - Team USA Olympic Semantic Network. Filtered view of the most common words in the network. They are sized by degree and the color is automatically generated.

Findings

 The words "represent" and "opportunity" are most strongly connected within the central group. The word "watch" has the highest betweenness centrality in the network. This means the word is used often and connects to the other groups of words. The word with the highest degree, however, is "champion" with 27. The higher the degree, the more connections. Many of the edges throughout the network include the word "champion". The word "watch" holds more power in the network however, as it is a valuable bridge connecting more words.

Several different clusters of words have been formed and are shown in the graph above. The dark blue cluster has several words that are all related to watching the Olympics from home. Words such as "watch" and "home" are obvious, but even "compete", "vs", and "opportunity". Another cluster with unique themes is the dark green group. All of the words in the group have something to do with success, whether it's "winning", "congratulations", or "qualification".

A Short Discussion

Despite having differently connected networks, semantic analysis showed that both networks shared some common vocabulary and discussion topics. Again, since the Olympic conversation was so much larger, there was obviously more to talk about. However, semantic network analysis shows that both networks have a significant amount of discussion about the achievements of these elite athletes. Words from the Olympic network like "opportunity", "represent", "champion", and "congratulations" fit right in with the most frequently used words from the Paralympic network like "support", "thank" and the hashtag "teamusahof" which references the US Olympic & Paralympic Hall of Fame. This commonality shows that the members of the Olympic social network could easily engage with the Paralympic one since they have a similar tone, vocabulary, and subject matter. The fact that many of the users in the Olympic network are not also in the Paralympic network means that they do not want to be in it, rather than that they are unable to. That is to say, they could be in both conversations, but for whatever reason are only interested in one.

A Note on Twitter Visualizations:

Unfortunately, due to unforeseeable circumstances, we were unable to access our original NodeXL files after campus was shut down. The files which we did have were corrupted. As such, we were unable to upload our visualizations to the NodeXL Graph Gallery.

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Wikipedia Network Analysis

Methods

After analyzing the social networks around American participation in the Olympic and Paralympic games, we found that the account @TeamUSA was the most central node in both networks. This account is the official account for the United States Olympic & Paralympic Committee (USOPC). Since this organization was the center of the Twitter network, we chose to start our Wikipedia page network analysis with the USOPC's page as the seed article.

Findings

The network is made of 173 connected pages with 648 unique edges. It has a modularity of 0.386, meaning that the different clusters have a moderate amount of overlap and are not exceptionally distinct. This network can be broken into 10 major clusters, with a few pages that are highly connected.

The most closely related pages include the United States' territories and governing bodies of major sports such as basketball, cycling, and volleyball. These pages make up the first cluster. This cluster contains some very central pages, such as the page for the United States, which has a betweenness centrality of 9732.514, or the page for New York City, which has a betweenness centrality of 2957.669. Both of these pages connect Group 1 to Group 3. The USA page also connects Group 1 to Group 2. This first group also contains the page for Colorado Springs, Colorado -- a highly connected page with a betweenness centrality of 1262.228. This page serves as a strong bridge between Group 1 and Group 4.

The second major cluster includes Olympic officials and committees, as well as specific games such as the London games in 2012, the US games in 1984, and the Athens games in 1896. This group has the highest number of bridge-pages, with 4 pages that have a betweenness centrality over 1000: the Olympic Games page (6515.796), the International Olympic Committee page (2588.071), the Paralympic Games page (2301.709), and 1984 Summer Olympics page (1686.177). The page for the Olympic Games is the second most central page (behind the United States page) and connects this cluster to Groups 1-7. The IOC's page is a strong bridge to Group 1, as is the Paralympic Games page and the 1984 Summer Olympics page.

The third cluster consists of major news outlets including NBC Universal and USA Today. The most connected page in this cluster is the page for NBC, which is the network that broadcasts the Olympic games on TV in the US. This page has a 2200.447 betweenness centrality. This page connects Group 3 to Group 1 strongly, and to Group 2 less strongly.

Cluster 4 represents more national sport governing bodies such as US Track and Field or USA Swimming and committee heads, but this cluster is centered around the page for the Amateur Sports Act of 1978, which established the USOPC and created those governing bodies. The page for this act has a betweenness centrality of 1044.872 and connects this cluster to Group 1 and Group 2.
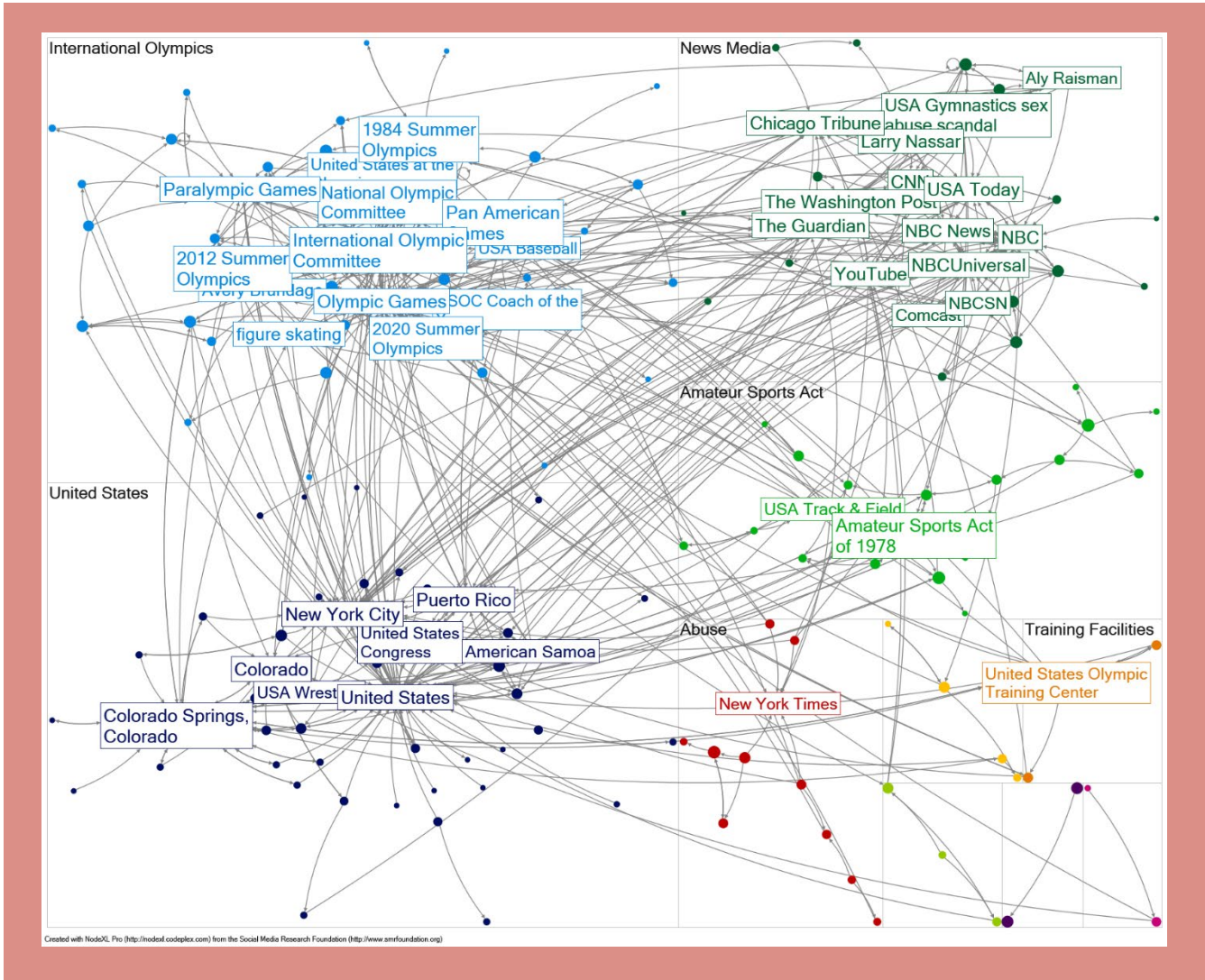
Figure 3.1 - <u>US Olympic & Paralympic Committee Wikipedia network.</u> *Vertices are sized by PageRank and colored by group. Seed article is not visible, and the edges are unweighted.*

Cluster five is made primarily of pages about abuse and hazing. The page for the New York Times is in this cluster and serves as a bridge between this abuse group and groups 2, 3, and 4.

Pages about Olympic training facilities make up the sixth cluster, while luge and bobsled are in cluster seven. The remaining three-page clusters contain famous people associated with the Olympics, goalball and boccia, and finally the US Biathlon association and their headquarters.

Group 1, labeled United States, is very highly connected to both group 2 (International Olympics) and group 3 (News Media). Groups 1 and 2 have 46 shared edges, and groups 1 and 3 have 43 shared edges. This means that the editors of these pages believe that the USA and the governing bodies of major US sports are closely related to both the Olympic committees and major US news outlets. It also means that these concepts are presented as very closely connected to the millions of Wikipedia readers. Groups 2 and 3 share 32 common edges. This means that they are not seen to be as closely related to each other as they are related to group 1, but still significantly more related than many other clusters in the network.

For example, the US Biathlon cluster has no common edges with any other cluster in the network. This means that the editors of these pages consider the US Biathlon organization to be related to the USOPC, but not any of the other organizations, places, or people in the network.

The article-to-article network, though it stems from the page United States Olympic and Paralympic Committee, lacks pages about the Paralympic sports. On the page, it lists every sport represented at the Olympic games and links to every sport's governing body's page. There is an indication of if the governing body offers a Paralympic program. By following those links of governing bodies with a program however, there is little or no mention of any Paralympic athletes or events on the governing body's page. On the USOPC page, there is a line that reads that "some Olympic sports aren't featured in the Paralympics, that is why there are more solely Olympic [National Governing Bodies] rather than those that manage both Olympic and Paralympic divisions" despite the page representing both the Olympics and Paralympics.

A Short Discussion

Through the analysis of the United States Olympic & Paralympic Committee Wikipedia network, we drew several conclusions. As mentioned previously, the major pages connected to the seed article are Olympic sports and press that covers the games. The locations where the games and training facilities are located as well as governing bodies headquarters also are closely connected to the seed article. Making up another significant part of the Wikipedia network is a page on US gymnastic abuse and Latty Nassar. These two pages have a betweenness centrality of 450. A mix of history, the committee, the games in America, and the member organizations and the committee's affiliations make up the connections in the network.

One of the things that are most apparent in the analysis is the lack of Paralympic coverage in the network. There are little to no significant nodes that represent Paralympic sports, athletes, or news coverage. After some googling, we noticed that many of the US Paralympic teams have Wikipedia pages of their own, which were not included in this network. For example, searching for "Team USA Wheelchair Basketball" takes you to a short article called "United States men's national wheelchair basketball team". This article does not link to the seed article but does link to a page called "Wheelchair basketball in the United States", which links to the seed article. The seed article does not link back to "Wheelchair basketball in the United States". The information and viewers flow in one direction in this network, and that direction is toward Olympians, away from Paralympians.

YouTube Network Analysis

The Olympic and Paralympic YouTube networks are markedly unique from the Twitter and Wikipedia networks. The videos are connected by their related content and the viewers that watch them and interact with the videos by liking and commenting. In this network, nodes are different videos and edges are shared commenters.

In order to pull data for the network analysis, a boolean statement was created. For the Paralympic network, the statement was:

[(US OR USA OR "U.S.") AND (paralympic OR Paralympics OR Paralympian)]

This statement searches for videos related to the United States USA and the Paralympics. The data was collected on April 26th, 2019. We found 10,250 unique edges. This is a much larger sample size, but it is only 19% the size of the Olympic network we found with the boolean search:

("Team USA" □ OR USA) AND (#olympics OR olympics OR olympic OR #Tokyo2020 OR Tokyo2020 OR Olympian OR "Summer Olympics").

That search returned 55,370 edges. To turn our Paralympic dataset into a useful visualization, we used NodeXL's Count and Merge Duplicate Edges function to merge all 55,370 edges into 1,389 unique, weighted edges. Along with merging, the network was filtered by edge weight to allow for a more clear analysis. Anything with an edge weight less than 2 was removed from the network analysis. Then, the vertices were grouped by clusters.

After merging duplicate edges in the Paralympic network, there were 377 edges. Along with merging, this network was also filtered by edge weight to allow for a clearer analysis. Any edge with a weight smaller than 1.1 was skipped.

Findings: Olympic

There are several key findings discovered in the analysis of the Team USA Olympic YouTube network. The videos with the highest betweenness centrality all were posted by the Olympic account. These top six videos serve as the strongest bridges of the network and bring together each group. The video "Argentina Shock USA in Men's Basketball - Athens 2004 Olympics" has a betweenness centrality of 234.226 and is the strongest bridge in the network. In the same group, the General Basketball group, the "Jamaica Break

Men's 4x100m World Record - London 2012 Olympics" video has a betweenness centrality of 231.165. This video, however, has over 6 times as many views.

The "Jamaica Break Men's 4x100m World Record - London 2012 Olympics" is one of two videos that rank in the top 6 for betweenness centrality and top 10 for views. The video ranks third in the number of views in the network with 18,768,300. This video is vital to connecting every other video in the network and therefore connecting each community.
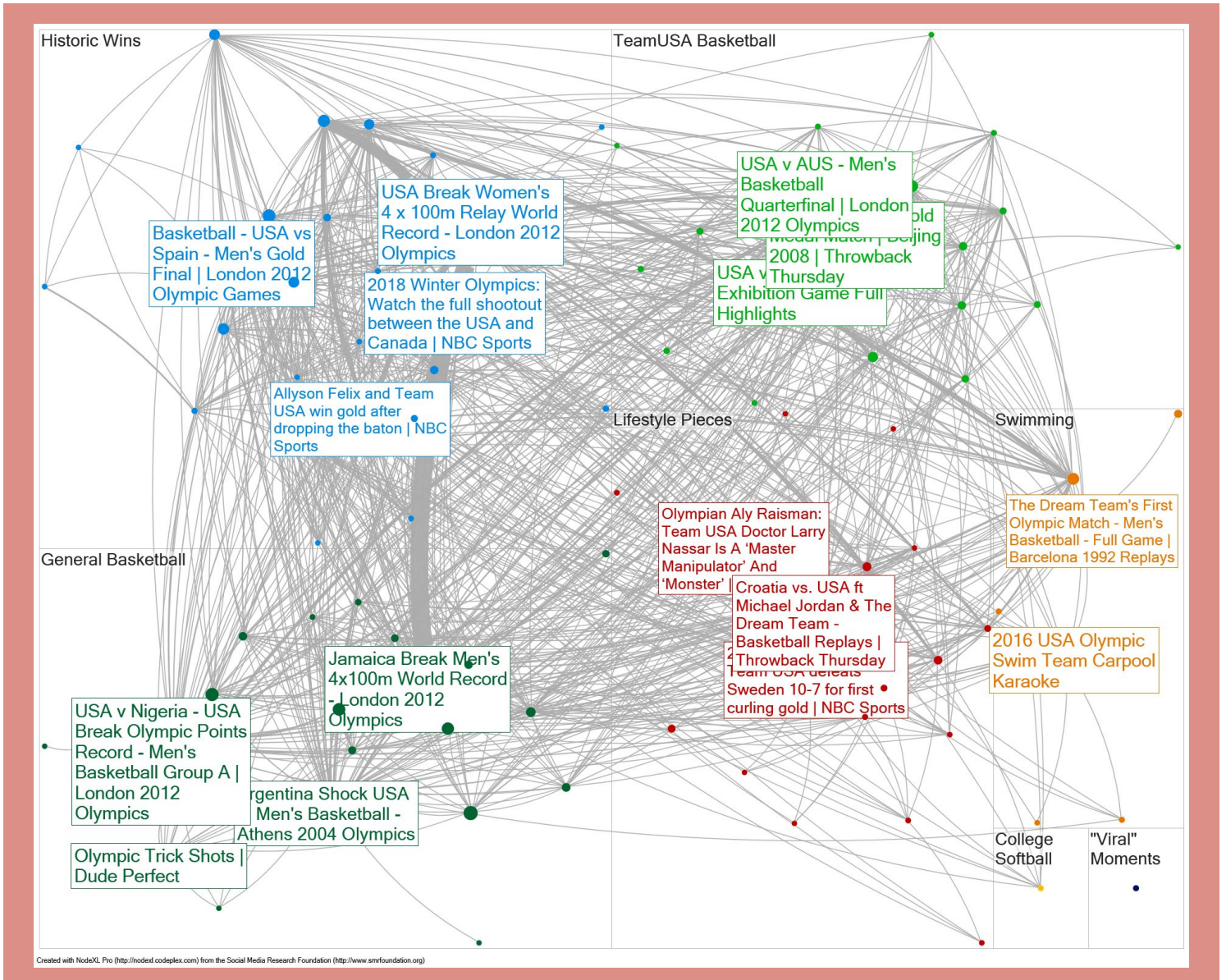

Figure 4.1 - <u>Olympic YouTube network</u>. Vertices are colored by group and sized by views. Edges are weighted by

Another important boundary object is the "USA v Nigeria - USA Break Olympic Points Record - Men's Basketball Group A | London 2012 Olympics" video. This video has a lower betweenness centrality, 196.718, than the "Jamaica Break Men's 4x100m World Record - London 2012 Olympics" video which has a value of 231.165. It, however, has the second most amount of views with 24,640,619 views.

The Team USA Olympic YouTube network returned 6 unique groups (the Isolates group was removed from the graph to maintain clarity). These groups are difficult to distinguish into their respective communities. This is due to a low network modularity of 0.168707. This low modularity means that the network is highly connected. This could be skewed by the overwhelming majority of the vertices belonging to the Isolates group.

While there are only 26 nodes in the Historic Wins group and 20 in the TeamUSA Basketball group, the Isolate group contains 525 videos. These videos in the Isolate group have no edges and therefore have a density of 0. The videos in the group are related only by the fact that they share no connections to other videos in the network.

Findings: Paralympic

In the Paralympic YouTube network, the video with the highest betweenness centrality is "Canada vs USA | Semi-final Ice Sledge Hockey | Sochi 2014 Winter Paralympic Games" with a betweenness centrality of 400.6. It has a very high betweenness, but only a moderate number of views (146,238 which is 43rd overall). This means that the video serves as a bridge to other parts of the network - connecting the "hockey" group to the "assorted highlights" and the "men's 100M" group. Another bridging video is "2018 Paralympic Winter Games | Team USA Wins Gold" This video has a betweenness centrality of 240, but only 12,680 views.

"Swimming Men's 100m Backstroke - S6 Final - London 2012 Paralympic Games" is the most-viewed video in this network, with 24,546,497 views. It is not a peripheral video, however, as it has a betweenness centrality of 300.572. This is a very successful type of video for reaching this network, because of its high view count and centrality. Another video with a similar name and topic "Athletics | Men's 100m | T44 Final | London 2012 Paralympic Games" is the second-most viewed video with 14,715,542 views and is still very central with a betweenness centrality of 184.017. Highlight videos of men's races are key in this network.

The network can be broken into 15 different groups, and seven of those groups are large enough to warrant examination. The first, and largest, group is assorted highlights from Paralympic games. The second is more highlights centered around the two men's 100-meter race videos with high view counts

and betweenness. The third group is about hockey, the fourth about wheelchair tennis, the fifth about wheelchair basketball, and the sixth about swimming. The seventh group is a group of four videos that are not highlights, but feature-style videos about paralympic athletes that have popular appeal. The other 8 groups were not large enough or very connected to the rest of the network. The network has a low modularity, only 1.19m which means that the groups have a lot of overlap and are not very distinct from one another.
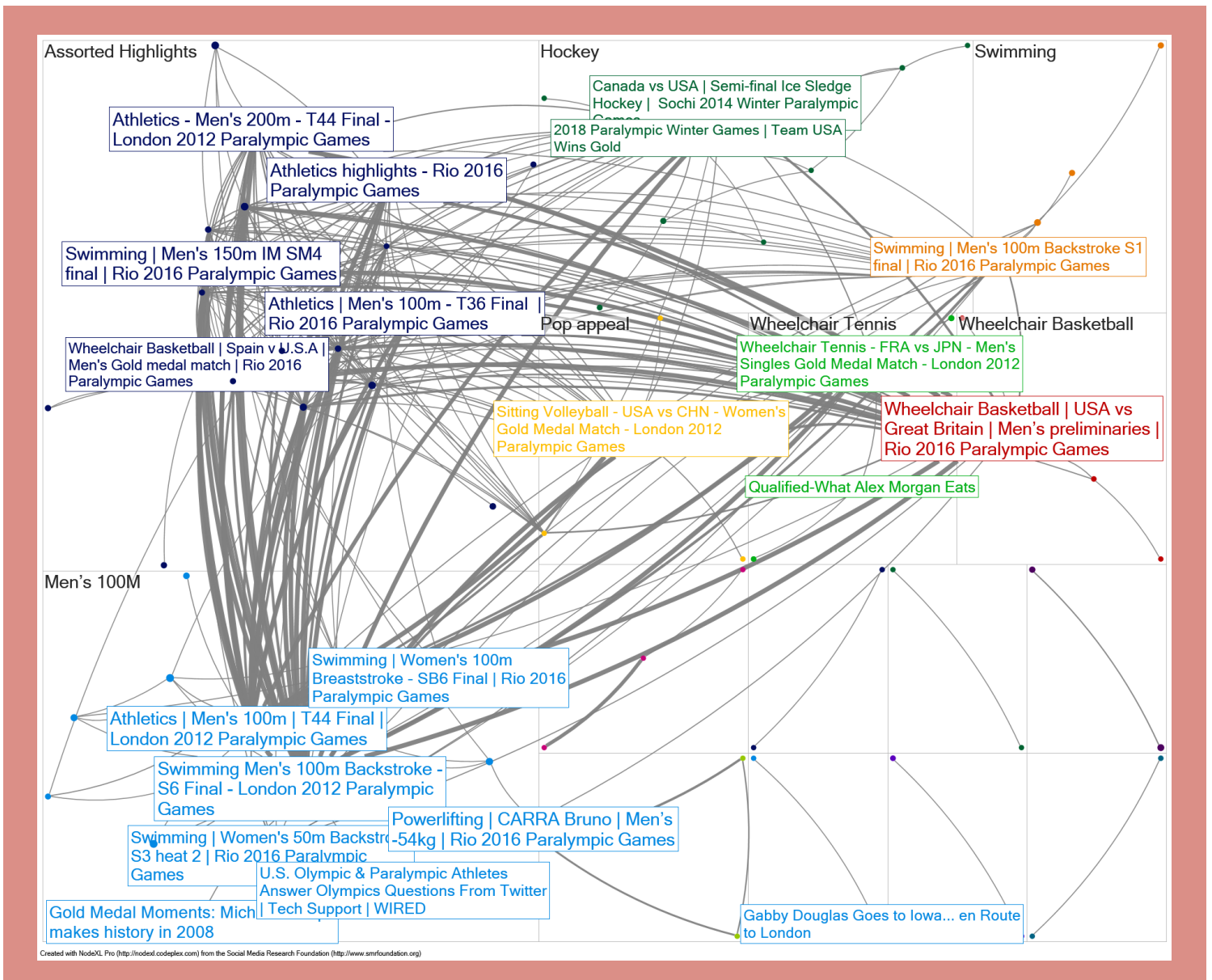

Figure 4.2 - <u>Paralympic YouTube network</u>. Vertices are colored by group and sized by views. Edges are weighted

A Short Discussion

Comparing the Olympic and Paralympic YouTube networks led to several interesting discoveries about each network. Similar to the other social networks, the Olympic network was much larger. The Olympic video with the most views had 1.6 times more views than the most viewed Paralympic video. Despite the boolean limiting the search to videos that were specifically related to the Paralympics, some Olympic videos made it into the network. The 23rd most viewed video in the Paralympic network is the "Gabby Douglas goes to Iowa" video, a video featuring Olympic gymnast Gabby Douglas, and a video titled "What Alex Morgan Eats", which features US soccer star Alex Morgan, was also pulled in. This same thing did not occur in the Olympic network. No Paralympians were represented by any videos.

Both Olympic and Paralympic networks showed similar types of content. There are very few lifestyle or human interest videos in either network. The vast majority of videos are about past Olympic games and show some of the most notable and popular highlights from the games. For the Paralympic network, there was one user in particular that connected the videos. This user was the Paralympic channel, which commented on a large percentage of videos. For the Olympic network, it is the Olympic account that posts the majority of the videos. Even though the boolean search included Team USA specifically, videos by the Team USA account did not show up as top videos in either network.

Discussion

Our analysis began with an interest in the social media presence of Team USA and the upcoming Tokyo Olympics. This led us to explore the communities involved with the Olympics and the Paralympics. The expectation was that the Olympic network would be much larger and that communities would be much more disconnected than in the Paralympic network. There are several discoveries made along the way that were not expected.

Each network gave a unique outlook on the disparities between the communities of Team USA and the Olympics and Paralympics. The analysis of the Twitter network showed that Olympic specific accounts, athletes, and news accounts were the most important bridges between groups. This was similar to the YouTube network in that the accounts dedicated to covering the Olympics were the most viewed and most commented on.

The centrality of Team USA was not the same in each network. According to the Twitter data, Team USA was central to the entire social network. Because the boolean statement specified the Team USA account this was not surprising. The Wikipedia network used the United States Olympic and Paralympic Committee page as the seed article and therefore has Team USA once again at the center of the network. It is the YouTube network that varies, however. Even though Team USA was a part of the boolean search, none of the most important videos in either of the Olympic or the Paralympic networks were posted by the Team USA account.

A discovery made in the Twitter analysis and further confirmed by analyzing the YouTube network was that Paralympians do not generate the same amount of interest as Olympians do. This means that they are passed over for certain career and commercial opportunities. This is evidenced by the most prominent Paralympians working as motivational speakers rather than celebrities such as Michael Phelps, Simone Biles, Alex Morgan, Michael Jordan, and Aly Raisman. The number of videos and tweets that focused on these Olympians greatly outnumbered the prominence of Paralympic athletes on both of these social networks.

On Twitter, YouTube, and Wikipedia the articles, videos, and overall conversation about the Olympians and Paralympians was focused on highlights. Even on Twitter where there was more conversation about the upcoming Tokyo Olympic and Paralympic games, there were many tweets that focused on highlights from past Olympic games. The social networks were all made up of communities that were interacting with these highlights and accomplishments rather than popular lifestyle and human interest pieces.

There are a few things that the accounts that cover the Olympic and Paralympic games can do that would generate more interest in not only the Olympics but also the Paralympic games and their athletes. Team USA has done a lot to ensure the coverage of both games, which is apparent by the centrality of the account in both Twitter networks. What is not done by a lot of the top accounts on Twitter and on YouTube is profiles and interviews of specific Paralympic athletes. The same type of exposure is not given to them as it is to many Olympic athletes. These people have great stories to tell and would generate a great amount of interest if they were given the spotlight.

The most glaring example of Paralympic marginalization is on Wikipedia. Paralympic sports are hardly covered at all in the articles that stem from the United States Olympic and Paralympic Committee pages. The articles that are linked contain information about all of the Olympic sports governing bodies. The governing bodies that do cover both Olympic and Paralympic sports have no information about the Paralympic sport. Adding information there about the Paralympic sport that they govern is a simple addition and ought to be there. On the United States Olympic and Paralympic Committee page, the Paralympic sports that do have their own governing body are not even listed as a sport that the committee rules over. The Team USA committee has a clearly stated mission of achieving competitive excellence for its athletes. The Wikipedia article for Team USA's governing body should be updated to equally represent all of their sports and athletes.

A major problem we noticed is that the Paralympic games are not as closely connected to news outlets and the media as the Olympic games. This is not necessarily a problem that Team USA can solve, because most news coverage is decided by what topics people are interested in. However, Team USA can send out Paralympic athletes on press circuits alongside their Olympic counterparts, which would help to introduce these impressive but lesser-known athletes to the public and help raise public interest.

Conclusion

The Olympic and Paralympic Games bring people together in ways that no other event does. It is unique in that it not only unites citizens of every country but also unite the world's most elite athletes and gives them a chance to represent their country. Whether it's a current conversation that surrounds the upcoming games or about past Olympic competition, there is no doubt that the passion of these professional athletes is visible in their fans and supporters.

Despite the overwhelmingly supportive and celebratory nature of these two groups, there are glaring disparities between the social treatment of the Olympic games and the treatment of the Paralympic games. From the digital conversation, it is clear that the Paralympic is a subsidiary of the Olympics and not equal partners. In fact, the United States Olympic & Paralympic Committee was called simply the "United States Olympic Committee" until June of 2019. (the United States has had a Paralympic team since 2001 and is the first Olympic committee in the world to have "Paralympic" in the name).

While these results aren't exactly shocking, they still have an impact on the lives of Paralympians. Paralympians don't generate 'buzz' to the same degree as Olympians which means that they may be passed over for sponsorships and career and commercial opportunities. While Team USA has been taking positive steps to include the Paralympics, there is still a long way to go until the marginalization of Paralympians is a thing of the past.