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The Emergence of eSport During Covid-19: How Sim Racing Replaced Live Motorsport in 2020

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Introduction:

In March 2020, the world, as we knew it, was put on hold due to the realisation of and instantaneous outbreak of the Covid-19 virus. Global travel virtually ceased, large and small scale events alike were put on hold or cancelled, schools and universities immediately transitioned to online learning for the remainder of the 2020 academic year and the world was largely told to ‘stay at home.’ On 12 March, 2020 it was announced that the Australian Grand Prix, the first race on the 2020 Formula 1 calendar, would be postponed and later cancelled. Likewise, a matter of hours later, the opening IndyCar race of the 2020 season in St. Petersburg Florida was also cancelled. These events led to a massive season-alteration for most motorsport events, most of which were first postponed before being cancelled. The inability to host live sporting events left, not only detrimental effects to the travel and tourism industry, but a complete lack of sporting events of any kind. This analysis will look specifically at two of the world’s leading open-wheel racing series as they presented their 2020 virtual season and provide insight into how fans have responded and engaged on social media platforms.

The data will focus specifically on how well received each Virtual Grand Prix (VGP) was in terms of social platform interactions and look at how those interactions correlated to actual views. While this unique opportunity to examine the shift of fans who engage with ‘live’ motorsport to an eSports series may not contribute directly to the ongoing debate as to whether eSport is in fact a sport, it will provide a unique vantage point to understanding how sport fans react to watching virtual sim racing as a sport.

Literature Review:

The classification of eSport has proved to be widely controversial in the sporting world as to whether or not it qualifies as an actual “sport” given that it is played using either a gaming console or an elaborate simulator set up. Additionally, eSports has no real athletic expertise required outside of exceptional reaction rates and reflexes with a few exceptions such as Dance Dance Revolution and Nintendo Wii. Research has determined that while it does lack certain physicality’s and dexterities that other sport requires, it does in fact require a specific prowess (Hemphill, 2005; Reitman et al., 2020; Sturm, 2019; Wagner, 2006). Previous research into eSport has focused on aspects of media, psychology, and entertainment in terms of analysis. Investigating this literature provides a basis for looking at the growing consumption motives today. Additionally, we look at how this literature details the evolution of the relationship between sport and media as it relates to the ongoing determination of eSport being classified as a sport and provides a set-up for 2020’s virtual racing season.

Where does eSport fit within sport?

“ESports is groundbreaking in its use of networked technology to bring people around the world together through organized competitive games.” – Jason G. Reitman, Maria J. Anderson-Coto, Minerva Wu, Je seok Lee and Constance Steinkueler (2020, p. 43)

There is no denying the expansive community that surrounds competitive and interactive gaming. The use of LAN (local area networks) and integrated social networks has turned a previously isolated genre into a globally connected network of competition, rivalry, and instruction through observation. The debate as to whether eSport is considered a sport has been raging for decades and academic research into the applicability of the definition of sport in reference to eSport is gaining more notoriety. This is aided by looking at eSport leagues and competition that initially took prominence in Asia and have now established a stronghold worldwide (Hutchins, 2008; Jenny et al., 2017; Reitman et al., 2020; Seo & Sang-Uk, 2016).

The primary point of view in determining if eSport fits into the classical definition of sport is largely viewed in the definition of an athlete and fan consumption. Jenny et al. (2017) looked primarily at how the virtual athlete fits into the definition of sport. Their research builds off of previous endeavours to define eSport and it's alignment with the definition of sport by creating a sport characteristics classification chart and comparing various activities that are not considered a sport, such as tag and boardgames, and eSport. In doing so, they demonstrate where eSport does in fact classify as sport over other similar, organized activities (Jenny et al., 2017). This combination of sociology and philosophy regarding the definition of sport does in fact open it to the evolution of how the competitive nature that is intrinsic to sport is viewed today. The defining characteristics they used in their chart constituted a definition of sport in terms of the athlete, the governing body, and the fans that consume the sport. There is an overwhelming amount of research that investigates the qualifications of eSport to be considered a classical sport that centres primarily on skill and training, as well as organised competition (Hemphill, 2005; Wagner, 2006). It is easy to see where aspects of virtual sim racing fit into their qualifications, especially given the organised and competitive nature of eSport simulator racing tournaments that are already streamed in similar methods to that of a motorsport grand prix.

A further look at how eSport would fit into the definition of classical, or traditional, sport is to analyse the historical relationship between media and sport. The expansion and development of global networked sim racing and eSports

competition could not be possible without the ever-continued development of technology and media. Hutchins (2008) defines the eSports evolution as a “meta-change” that has occurred because of the marriage between media and sport. He cites Thompson (1995, 2005) and Innis (1950, 1951) in classifying this marriage as being a cultural growth through the advancement of social interactions as they relate to the needs and processes of consuming sport as a socialised activity (Hutchins, 2008). At its root, eSport is very much entangled with media studies as it is most specifically an entwinement of sport, technology, and media (Taylor, 2012). Due to large advancements in media, most specifically in live streaming, an eSports community can not only be fully formed, but fully interactive with a multi-person interactive community. This is further cemented by looking at these social interactions and the formation of a community via media streaming platforms which are directly applicable to both traditional sport as well as the evolution of eSport (Burroughs and Rama, 2015; Devia-Allen, 2017; Hamilton, Garretson and Kerne, 2014; Kaytoue, Silvia, Cerf, Meira and Raïssi, 2012; Reitman et al., 2020).

Today, there are many eSport competitions globally that have organisations and governing bodies that allocate the outcome of tournaments. According to Wagner (2006), this specific structure of eSports tournaments and competitions fits within the definition of classical sports since there will be a clear winner of the organised competition whether as a team or an individual (Jenny et al., 2017; Wagner, 2006). These expansive tournaments, held on a local and global level, are a clear indication of the advancement of communications technology and media that has exploded onto the scene within the last two decades and strengthens the bond of sport and media. Formula 1 has already taken a step forward in this direction by hosting the F1 eSports Series that sees gamers compete at a certain number of Formula 1 Grands Prix from a simulator at each event. The culmination of the series results in a points-based championship similar to the Formula 1 World Championship. In this series, constructors can draft their team based off previous competitors’ seasons, as well as practice matches and qualifying by the gamers. Research into this type of interactive, live stream community has been addressed by many and has brought forth much qualitative data focused on the relation of the eSport ‘community relations’ (Hallmann and Giel, 2017; Hutchins, 2008; Seo and Jung, 2014).

The eSports tournaments that are governed and regulated are not entirely different from what is seen in sporting tournaments. To be competitive enough to enter and win such a competition, there must exist some sort of skills prerequisite that is not entirely different from traditional sports athletes. Hutchins (2008) draws very clear parallels in observing both an eSport tournament and traditional sport tournament stating that the skills and preparations, the organization and the sponsorship are similar and yet it is still refuted by the cultural precedent that

defines a traditional or classical sport athlete. He continues that this is aggravated by the fact that it is difficult to tie these ‘cyber athletes’ to one category as they can easily fit within all the categories that constitute eSports and online gaming. Hutchins looks into the correlation of media and sport noting that the continued development and expansion of communications and networking technology is what has established the ‘new normal’ for what the world has adopted for social interactions and viewing options (Hutchins, 2008).

Simulators and Realism

Formula 1, among other motorsports, has long been releasing video games since the earlier developments in home gaming systems that date back to the late 1980’s. Rather than being developed strictly for an at home gaming system, today’s programme comes from the driver development simulator that is used for each season of racing. The use of these simulators across multiple seasons of motorsport development are largely hailed as being an accurate representation of technical specs and hyper-realistic track conditions in preparing and training for each season (Flemming and Sturm 2011; Sturm 2014, 2019). This application of simulator-based training and development is already established across many disciplines such as golf, careers such as pilot skills development and evaluation, and now the use of drones in which the hyper-realism is necessary (Hemphill, 2005; Sturm, 2019). Sturm specifically notes the development and expansion of the Formula One eSports Series, started in 2017, which has grown year upon year. He observed that in its first year, the Formula 1’s eSeries final garnered 494K views which is more than both the NBA 2K17 All Star Championship and the NFL Madden 17 Championship with each receiving 259K and 227K views respectively (Sturm, 2019). Additionally, there are many other divisions of motorsport that have begun hosting their own eSport competitions from World Rally Championship to Formula E and MotoGP (Duhan, 2018; Sturm, 2019).

From racing sim to the track

The ability of a gamer to become a driver cannot exclusively prove eSport’s relevance and classification as a sport, but it does lend an increasingly valid argument when looking at the current applications of computer-based simulator training for the direct improvement of the team and driver/athlete prior to and during a motorsport season. Lando Norris, current Formula 1 driver (McLaren – 2020) and sim racing enthusiast, makes a valid argument for the real-life application of sim racing skills to driver training.

“I had a sim at home when I was younger and it proved invaluable in developing my race craft so although it isn’t “reality”, eSports has

nonetheless made a huge contribution to the reality of me reaching the highest levels of motorsport” (Gillard, 2018, para. 2, via Sturm, 2019).

There is still a great emphasis on the fact that eSports, however applicable to the skills needed to compete on a real track, is still simply a game and not reality. The argument against the validity of sim racing being a sport does stem from the fact that although the hyper-realistic graphics, technical specs and immersion factor are directly applicable to the sport, there is the lack of physicality in the duress that is exhibited on the drivers as they push the car and their bodies to the limit through hair-pin turns, massive acceleration and deceleration and the sometimes oppressive heat at the location (Corby, 2016; Sturm 2019). Lando’s statement could offer a closer argument on the validity of eSports classifying as a sport by building upon the growing popularity of motorsport eSport leagues and tournaments.

The integration of sport science research regarding eSport and classical sport relevance must be noted given the above look into the applicability of simulator training to real life scenarios. Hemphill (2005) saw a direct relation of the competitive skills demonstrated in these immersive games and the real-world physicality’s that are needed. Reitman et al. (2020) also notes that Jonasson and Thiborg (2010) and Hallmann and Giel’s (2018) sports science research into eSports was directly able to provide a set of conditions whereby eSport does in fact fit into the category of sport including the regulation and organization of competitions, the skills needed to compete, as well as the long-established social following and recreational engagement in such competitions. In the world of motorsport gaming, this assumption has recently been addressed whereby many teams and series have sought to investigate how well these expert motorsport gamers would in fact transition into real racing. The introduction of teams and drafting their competitors within Formula 1’s eSports series has already applied the notion of taking the direct skills from sim to on-track driving, but other sim racing competitions have taken this one step further. The *World’s Fastest Gamer* (also shown as *Gamer to Racer*) is a competition that takes top gamers to see how their eSport skill would transfer to an actual driver by not only looking at sim-to-track racing skills, but also incorporating a physical athletic portion to be applied directly to the competition. The 2019 winner of this knockout gamer-to-racer competition would receive a seat competing in Aston Martin GT cars during the 2020 season. This seasons competition was spearheaded by Juan Pablo Montoya as he coached the top motorsport gamers who qualified and assisted in their transition to an actual driver on track. One can almost be bold enough to state that motorsport is the only sport that can produce an eSport game that is essentially as accurate to real life racing as any sport, except perhaps golf. Motorsport only lacks a few physical differences between driving a simulator and driving on a physical track, while the same cannot be said of football or basketball eSports games.

Sport consumption v. eSport consumption

When you look directly at the emergence of competitions and tournament structures within eSport, it must of course be followed by a look at consumption methods and motives. The similarities in traditional sport consumption and eSport consumption can be easily drawn. In this area, there is once again great emphasis on the relationship of sport and media and their evolution together. Boyle and Haynes (2010) excellently detail the classical relationship between sport and media in terms of its development through the consumer. It is crucial to note that as sport in print media became more prominent through the past centuries, the visual and technological media fought to keep the fan engaged in modern sport by developing a means of transferring a sporting event to a remote audience via camera recordings and live feeds (Boyle and Haynes, 2010). This progression brought multiple series of evolution in fan consumption as well as the psychological descriptions and classifications thereof. The ability for fans to be able to visually consume sport without leaving their home established a new method by which to analyse and classify sport consumption. Further detailing this ‘created’ cultural alteration of consuming televised sport, there blossomed into existence a psychological factor to this fandom that is created out of televised sport consumption as being “isolated, lonesome and narcissistic” while serving as a relief or ‘escapism’ from the everyday (Boyle and Haynes, 2010). Lee and Schoenstedt (2011) specifically reference Maslow’s (1943) *need hierarchy theory*, as well as Katz et al.’s (1973) *uses and gratification theory*, as being a decisive method in understanding this type of fan consumption. While this view can largely be critiqued and even criticised in certain scenarios, there is no denying that the current global shutdown due to Covid-19 has specifically evoked this observance of the definition of fandom in the need to consume sport that is new and ‘live’ in its presentation.

Continuing to analyse social motivations behind eSport consumption, Seo and Jung (2016) specifically look at the ongoing social practices involved in eSports. While the connection of sport and media developed out of networks and social practices that are continually evolving together, eSport was itself born out of the social interconnectedness of digital platforms. They observe how eSport could be classified as a sport by looking at the element of competitive gameplay in terms of escapism of the consumer (the player) and focus it on the consumer gaining skills as well as observing how this is done via competitiveness within an interconnected social community (Seo and Jung, 2016). Likewise, when it comes to watching eSports, the above determination is reiterated in reference to Su and Shih (2011) and Taylor (2012) in stating that the act of watching eSport, either for recreation or for learning and observation, carries its own parameters of understanding on behalf of the consumer (Seo and Jung, 2016).

Reitman et al. (2020) keenly reference Taylor and Witkowski (2010) in their literature review in stating that the live competition events force us to look at how the player and fan views and consumes the event in the wider cultural setting, particularly in reference to how such consumption fits into self-identity and definitions of leisure. This research application is especially critical now as the world is forced into 'lockdown' type procedures that have been largely unseen and un-experienced by the present generation, especially in the terms of the modern age sport fan. The onset of this cultural Covid-19 pandemic will undoubtedly allow for research across disciplines as the sociological effects are able to be applied to results within media studies.

In eSport, looking at consumption research is not simply limited to fans or viewers, but includes those who are playing the sport and becoming skilled enough to reach the top level of the tournaments and competition. Lee and Schoenstedt (2011) looked at the motivational and behavioural patterns comparing eSport consumption and traditional sport consumption. They used regression analysis to identify the reasoning behind the consumers personal and social connection as being primarily motivated by competition, peer pressure and skill building (Lee and Schoenstedt, 2011). Additionally, their investigation into viewing consumption to determine if eSports would be an alternate form of traditional sport consumption, indicated that traditional sport consumption in these measures follows the same singular search interest of eSport. Bányai et al. (2019) looked specifically at eSports spectators and their motivations through analysing research by Lee, An and Lee (2014) and Hamari and Sjöblom (2017), who both concluded that it was more the drama of watching the game unfold through the players' skills that motivated spectators to consume the tournaments. While Bányai et al.'s focus was looking at gambling in sport consumption, the motives they address still involve the consumption of traditional as well as eSport. Additionally, Hamari and Sjöblom looked at spectator satisfaction through the *uses and gratification theory* (Katz et al., 1973) noting that the frequency with which eSport is consumed deals primarily with learning and understanding the game, escapism and aggression (Bányai et al., 2019, Hamari and Sjöblom, 2017).

The ability to transition to virtual racing during Covid-19 social distancing has been a unique opportunity for many of the national and international motorsport series to capitalise on. This unexpected replacement allows the ability to analyse both the sport fan, as well as the general quarantined public, that tuned-in and watched a virtual race by series' drivers. One such endeavour has already investigated this shift. Examining the historic relationship between media and sport, Robbers and Sharp (2020) analysed the effect as to how this shift to virtual racing was represented in the media by using qualitative framing to provide analysis to the British and American newspaper articles. Noting that much of eSport research is

generally focused on the role social media represents, they paid particular attention to the media's written representation of this shift. The framing analysis of the textual representation showed that while there were some negative perspectives of the online sim racing, there persisted a positive spin to the shift to the virtual racing to perceive it with "greater validity" while still attributing this positive perspective to the situational absence of live motorsport of any kind (Robeers and Sharp, 2020). This analysis proves that mainstream media is still not ready to accept eSport as a sport with the conception of it remaining designated as a fictional game (Jenny et al., 2017; Robeers and Sharp, 2020; Sturm, 2019; Taylor, 2012).

Methodology:

Data for this study was collected from the public facing website of Twitter, Facebook and YouTube. The research was collected through historical-manual method of social media data research and with the existing data analysed for correlated correspondence between awareness and exposure to events and event consumption (Walker, 2017). Twitter and Facebook served as the awareness and exposure platforms with YouTube serving as the event consumption platform. The two motorsport series, Formula 1 and IndyCar, were selected based on their likeness in being an open-wheel motorsport series and for having large, historic following and pedigree in terms of similar dominance within their fields¹. Formula 1 races on a global stage, with the 2020 season set to include 22 races within 22 countries differing from the previous schedule which contained 20 races. IndyCar races on the North American continent with a 17-race season covering 15² different cities within the given season. While both series share a country and circuit (Circuit of the Americas in Austin, Texas), they also contain a varied crowd in terms of fans/attendees at events as well as followers online. It should be noted that while the two series are being used as a comparison in terms of data, they are not being compared in specific technology and specifications in terms of actual racing. Each series launched the VGP series at similar times and maintained the ability to go "live" to their previously contracted networks³.

The data recorded on Twitter and Facebook was specifically for fan/follower response to the VGP start. YouTube data was collected to note the

¹ The use of the term dominance in their fields relate to the fact both are governed by different authorities and that both have a similar legacy outside of both being an open-wheel base racing.

² Two of the races on the IndyCar 2020 season schedule (also an occurrence during previous seasons) are held in the same city as other races. These races occur at the Indianapolis Motor Speedway (the Indianapolis Grand Prix and the Indianapolis 500, and the Raceway at Belle Isle Park – where one race occurs on Saturday and one race occurs on Sunday during the same weekend).

³ IndyCar ran live VGP's through NBC Sports and then posting to YouTube, while Formula 1 ran live VGP's through Facebook, YouTube and their subscription app F1TV.

amount of views recorded for both series. This viewing platform does not require a subscription for viewing and displays the total views since the original posting/airing to the end of the data collection period from 10 July – 5, August, 2020. This was done specifically to account for the individuals who are not able to watch the event live but are still avid fans and will specifically seek out the VGP to watch.

Inconsistencies in data collection:

There are always inconsistencies that arise during the social media platform data collection process. It should be noted that the collection of platform data began after both Virtual Grand Prix seasons were concluded. The largest inconsistency in the data collection process was noted with IndyCar, primarily on Facebook where there were multiple posts intended to push the live event with where to tune in. Therefore, the post that was made right as the event started was selected. While Formula 1 remained largely consistent in the design and wording of posts that were made regarding announcements and “click link to watch,” the IndyCar series had a slight variance in what was being posted since their first VGP streamed on Facebook and the remaining on NBC Sports. This also notes the differences between the two series in terms of where to watch. Formula 1 viewing was strictly online and platform-based subscriptions. IndyCar, while also allowing viewing online, primarily focused their viewing alerts on cable television sports network NBC Sports which is primarily available to North American inhabitants. It should also be noted that Formula 1 streamed their races on their own YouTube channel while IndyCar streamed their races NBC Sports’ YouTube channel rather than their own (IndyCar’s YouTube channel did air highlights).

Results and Discussion:

The analysis will be divided into two parts. The first part, awareness and exposure, will address the reception of the Virtual Grands Prix announcements on social media, via Twitter and Facebook. The second part of the research, event consumption, will look at each Grand Prix and the total views and comments that it received on YouTube with a comparison to whether one series received greater interaction in views over social media engagement. It should be noted that, as stated prior, IndyCar largely relied on NBC Sports for their live viewing and running the replays on NBC Sports’ YouTube page, rather than Formula 1 who relied solely on social streaming and subscription-based platforms. There will be an additional follow-up to the data in a discussion as to whether or not the Virtual Grands Prix did in fact benefit the full time drivers and teams as they returned to live racing and whether or not the virtual sim racing is in fact a valid and accurate form of sport for the motorsport community.

Awareness and Exposure Data:

IndyCar and Formula 1 used social media as the primary source of announcements for the VGP (Virtual Grand Prix) series and the schedule of events. While each series posted different information leading up to each live event, they both posted an announcement as each VGP started with either the location of where you could tune in to watch or a link to the platform that it was streamed on. The data collected was from this starting post and is divided first by series and then by platform. The data collected was from the same criteria on each platform indicating the total number of *Likes*, *Shares (Retweets)*, and *Comments*. The total number for each of these categories was used to determine the engagement increase and decrease throughout the VGP season for both series.⁴ This data is discussed below with references to the tables.

For IndyCar, Facebook proved to be the platform with the greatest amount of engagement overall in terms of numbers. This would coincide with fact that IndyCar's Facebook following is at 955K, where their Twitter following is at 383K. On both platforms there is a steep drop off in all categories aside from *Comments* on Facebook (Table 1b) which went up significantly following GP1. In fact, if you follow the number of comments on Facebook for each race post, they never drop below the initial total of 83. Twitter engagement levels during GP4 seemingly took a dive in almost all areas showing a rate of decrease of 37% in likes (Table 1a), while Facebook's numbers for GP4 remained plateaued from the previous increase of 118% from GP2 to GP3 (Table 1b). Contrary again, Facebook's numbers for the remaining grands prix remained roughly the same in all areas through the remainder of their season, while Twitter's numbers continued in an upward pattern showing an increase of 295% in likes between GP4 and GP5 and continued through the final race. While both Twitter and Facebook maintained higher numbers for the final two races of the series in comparison to the mid-section, it is the final race of the IndyCar VGP series that brought in the greatest number of *Comments* on Facebook for the entire VGP season (Table 1b). This could attribute to the fact that the final race of the IndyCar VGP series was at IMS (Indianapolis Motor Speedway), most notably know for the Indy 500 and considered part of the triple crown of motorsports. While IndyCar's final race (GP6) was not intended to replace the Indy 500, one can of course see its importance to the fans and expect a potentially higher viewing in addition to its being the finale of the VGP series. Across the entire VGP season, IndyCar showed an increase from the first to the final race in both *Likes*

⁴ In this research, engagement refers to the direct engagement of a user with a particular post as defined by *Likes*, *Shares and Comments*. Impressions, or the number of people who simply viewed the post regardless of interaction aside from pausing to read it, are not included in the total number of engagement categories as this information is not always public.

and *Comments* (Table 1b), whereas Twitter showed a gradual decrease overall, seen most notably in the *Comments* (Table 1a).

Like IndyCar, Facebook held the greatest degree of engagement for Formula 1 when compared to the total amount of engagement on Twitter. This can be linked to the fact that Formula 1's Facebook account has a total following of 9.5M, where Formula 1's Twitter has a total following of 4.9M. Twitter showed a steady decrease in all categories from GP1 through GP8 with the largest rate of decrease in *Likes*, 47%, occurring between GP3 and GP4 (Table 2a). Facebook data appeared more staggered, though largely declining overall, with the greatest rate of decrease in *Likes*, 66%, also occurring between GP3 and GP4 (Table 2b). Towards the middle of the VGP series, specifically at GP5, there was a jump in numbers for both Facebook and Twitter. Numbers increased in all categories with the sole exception of *Comments* on Twitter that showed a small decrease (Table 2a and 2b). Formula 1's GP5 was held on 10 May and occurred the week after the close of the IndyCar VGP series. While a similar jump in numbers occurred in IndyCar during this same monthly time frame, it did so at an iconic location and reminiscent the Indy 500 which is a historical race on any motorsport calendar. Formula 1's GP 5 was the Spanish Grand Prix and while they did hold a VGP at Monaco, a race held in similar regard to the Indy500, this race occurred as GP6 which saw a unified drop off in numbers on both platforms. Like IndyCar, Formula 1 did see a large jump in the number of *Likes* within the final VGPs of the series specifically looking at the difference between GP6 and GP7 on Facebook (Table 2b). However, Formula 1's jump in *Likes* occurred on Facebook when IndyCar's jump occurred on Twitter. While much of IndyCar's data showed some consistency between platforms where they peaked and plummeted, Formula 1's data was less consistent between platforms. On Facebook, GP3, GP5 and GP7 all showed increases in engagement against the previous race (Table 2b). Twitter showed increases and decreases disproportionately between the categories and largely did not coordinate the same as Facebook. While the data did show clear surges throughout the season, it remained largely unable to see a race that clearly favoured as increasing engagement on both platforms simultaneously.

Table 1a IndyCar Engagement Data - Twitter						
	GP1	GP2	GP3	GP4	GP5	GP6
Likes	384	292	130	81	320	238
Retweets	176	39	25	25	48	57
Comments	39	30	9	7	6	8

Table 1b IndyCar Engagement Data - Facebook						
	GP1	GP2	GP3	GP4	GP5	GP6
Likes	557	371	811	811	811	811
Shares	172	138	145	145	145	87
Comments	83	119	87	87	87	145

Table 2a Formula 1 Engagement Data - Twitter								
	GP1	GP2	GP3	GP4	GP5	GP6	GP7	GP8
Likes	3,600	2,700	1,300	690	738	621	659	748
Retweets	376	401	159	114	140	87	92	68
Comments	116	93	55	13	11	14	10	9

Table 2b Formula 1 Engagement Data - Facebook								
	GP1	GP2	GP3	GP4	GP5	GP6	GP7	GP8
Likes	8,100	5,100	6,400	2,200	3,900	2,300	5,900	3,700
Shares	1,800	296	801	145	460	184	443	270
Comments	4,900	954	1,700	751	1,300	525	1,000	606

Rate of Increase/Decrease Comparison

The rate of increase and decrease looks directly at the variance between the first race and last race of the VGP season. Over the duration of the Virtual Grand Prix Season, both series trended down in engagement despite the variances in each race on social media platforms. However, the overall variance between engagement levels from the very first race of the season to the very last race of the season saw IndyCar lose the least amount of engagement (Table 3a and 3b). In fact, they finished in the positive by a large percentile for *Likes* and *Comments* when it came to Facebook engagements (Table 3b). For both IndyCar and Formula 1, Facebook also proved to hold the most engagement levels with percentages showing a smaller variance in the decrease when compared to Twitter. There is, of course, one major variable that must be taken into account when looking at the Facebook engagement levels and that is the ability to stream the live feed of the race on that particular platform without having to follow any link. This was the case for IndyCar for the first race prior to NBC Sports taking over the broadcast of the VGP and for Formula 1 for the duration of the VGP Season. While Formula 1 garnered greater numbers

on Facebook than IndyCar did, their overall percentage of decrease throughout the season was much larger despite the ability to watch on the same platform and post.

Table 3a

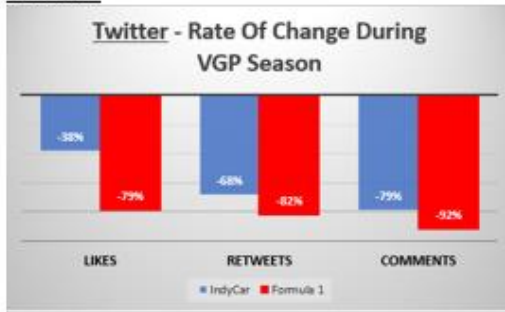
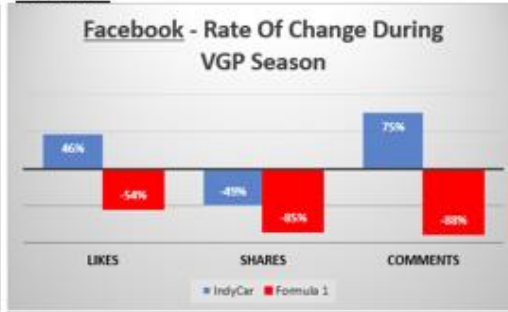


Table 3b



Consumption – Analysis

IndyCar and Formula 1 used YouTube as a streaming method in which to watch their Virtual Grands Prix. As was evident with the awareness and exposure analysis in terms of fan engagement, IndyCar once again maintained the smallest rate of decrease between the first and last race showing a decrease of only 26% compared to Formula 1’s decrease of 74% (Table 4). This is even more impressive when noting that after the first VGP at Watkins Glenn that was streamed on Facebook, IndyCar VGP’s were broadcast live on NBC Sports. Aside from watching Formula 1 on either Facebook or YouTube, the VGP could also be seen on their subscription based streaming platform. The additional methods of consumption for the VGP does add in an unknown variable when it comes to a comprehensive analysis of all the methods of consumption for both series. Once data figures are released from both additional consumption variables, NBC Sports Nielson ratings data and Formula 1’s subscription-based platform’s viewing data, another comprehensive analysis should be performed in order to factor in the additional views to compare platform engagements. It should also be noted that there will always be an unknown variable regarding those fans who watched multiple platforms (i.e. NBC Sports and YouTube or F1TV and YouTube) in which a repetition consumption should be considered.

The data in this research shows that IndyCar not only maintained the highest engagement levels from the first race to the last, but IndyCar also maintained the least amount of decrease in rates of consumption showing a total loss of approximately 71K, where Formula 1 showed a loss of almost 1M (Table 4). The correlation between the amount of times that one post was engaged with on Twitter and the amount of views the VGP received on YouTube can easily be seen in the

increase and decrease in views for both series (Table 5a and 5b). Facebook’s comparison of engagement to views on YouTube followed somewhat closely for Formula 1 (Table 5b), but appeared slightly less conclusive for IndyCar, especially considering the mid-series spike (Table 5a).

Table 4

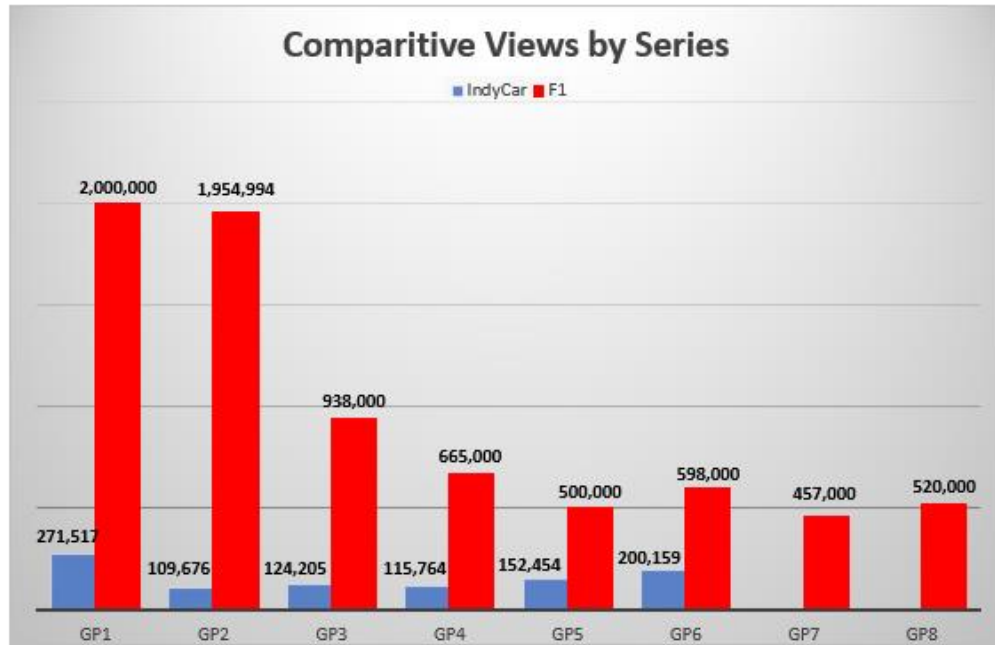


Table 5a

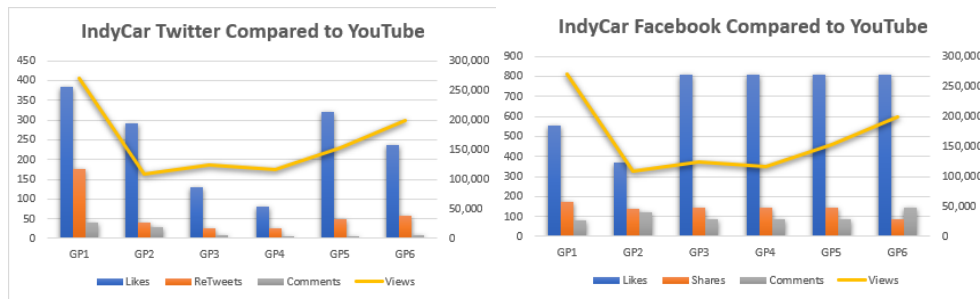
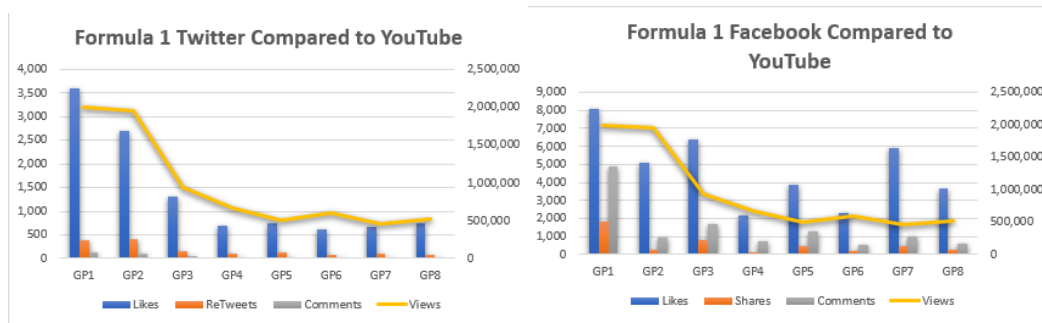


Table 5b



Discussion

Previous literature that was explored in this analysis showed that eSport is undoubtedly gaining fans and exposure at an exponential rate (Sturm, 2019) and the debate as to whether or not it should be considered a sport will also continue to prevail. However, the addition of motorsport sponsoring their own eSport league and championships will indeed continue to drive this debate as it extends to incorporate multi-faceted competitions in which gamers will compete not only in driving skill but physical skills as well (Hemphill, 2005; Sturm 2019). A prime example of this convergence of skill from the driving simulator to the race track is furthered specifically by four of the Formula 1 drivers, Lando Norris, George Russell, Alex Albon and Charles Leclerc, who flourished during the VGP and have now all taken a podium (excluding Leclerc), with Norris and Russell placing higher than they ever had prior to the 2020 live racing season. Conversely, the IndyCar VGP winners showed consistency in those who won with Pagenaud and McLaughlin each winning 2 of the 6 races, but Pagenaud is the only driver to win multiple VGPs and go on to take a podium in the restarted 2020 season. This variance between the series adds a point to each column in the discussion of simulator racing being applicable to track racing where Formula 1 adds a point to

the pro-side of the discussion and IndyCar adds a point to the con-side of the discussion.

The research previously discussed in this paper showed that the presentation of tournaments and competitions are what often draw fans to the eSport arenas (Bányai et al., 2019). Given this notion, Formula 1 would have had an advantage as they already have been broadcasting their eSport league tournament, allowing for two years of live digital streaming presentation, commentary as well as the ability to run through potential glitches and improvements prior to the Virtual Grand Prix series. Contrary to this, IndyCar had to begin anew by having to prepare how the Virtual Grands Prix would be put together for a live presentation. They strove to keep the presentation as close to a live race in terms of style as well as execution, particularly in noting the addition of National Anthem singers for each race as well as the convocation. Despite their novice in a virtual presentation of the simulator racing, the data analysis showed IndyCar still saw the least amount of decrease in engagement and consumption. In the 2019 season, Formula 1 reported a TV cumulative viewing audience of 1.9B (formula1.com); IndyCar reported that those who viewed live minutes was an audience of 1.129M (Horner, 2019). Given 2019's season numbers, it is clear that while millions of motorsport fans have made the jump to consume sim racing in the absence of live racing, there are still many millions who either were not able to or simply chose not to engage in this altered consumption. This could very well be representative of media's overall view of sim racing verses sport as noted by Robeers and Sharp (2020).

Conclusion:

The engagement and consumption data collected showed that while there was significant interest in the premier of each the Formula 1 and IndyCar VGP series, it did ultimately taper off as the season extended with both series showing significant drop off. Regardless of the motives with which the fans engaged and consumed the VGPs, it is evident that the transition to the simulator-based series was ultimately a success. Will this data add to the validity of the argument for eSport to become a sport? Perhaps, although there are further factors that would need to be considered from this data, such as athletic training prior to each VGP and mental acuity, that would be able to add conclusively to the argument. While a Virtual Grand Prix will in no way replace the palpable excitement of a live Grand Prix; however, in the era of Covid-19, the Virtual Grand Prix has been able to not only satisfy, but re-evoke the passion of a 2020 motorsport season without leaving the home even if only for a short while.

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