

**THREE ESSAYS ON UNDERSTANDING AND OPTIMIZING DIGITAL
MARKETING AND COMMUNICATION**

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ABSTRACT

The evolving nature of the sport industry coupled with continually advancing technologies make it increasingly important to research and understand digital marketing and communication. This dissertation includes three essays that investigate digital marketing in the sport industry by considering the sport organization, context, and user as well as their interactions. Essay One critically examines the current use of Uses and Gratifications (U&G) Theory by examining what consumers do with sport social media. Findings from a qualitative analysis result in a proposed augmentation to U&G Theory to reflect that not all social media consumption is purposeful in nature, while also identifying a core set of motivations driving social media use. Essay Two identifies determinants of social media engagement using data mining techniques to unearth insights that can be leveraged by organizations to optimize marketing and communication strategies. Results inform the development of an updated Sport Experience Design (SX) framework to capture the complex and dynamic nature of sport consumption contexts. Finally, Essay Three examines advertising in multi-screen environments when the advertisement (ad) appears on the second screen, specifically considering the impact of timing on ad memory due to limited cognitive processing capabilities of consumers. Collectively, this research contributes to a deeper understanding of digital marketing and communication in sport management. This research lays a foundation for a stream of future work that will consider the intersection of information systems, consumer behaviour, marketing, and sports management, specifically, digital marketing and exploring the optimization and usage of mediated tools and techniques by organizations.

TABLE OF CONTENTS

	Page
ABSTRACT.....	ii
LIST OF TABLES.....	vii
LIST OF FIGURES.....	viii
 CHAPTER	
1. INTRODUCTION	1
Implications.....	7
 2. UNDERSTANDING SPORT SOCIAL MEDIA USAGE: AN EXAMINATION OF USES AND GRATIFICATIONS THEORY	 9
Literature Review.....	12
U&G Theory	12
U&G Theory and Sport Social Media Usage	14
Criticisms and Limitations of U&G Theory	20
Method	24
Data Generation	24
Data Analysis	27
Data Validity	27
Results and Discussion	28

How Social Media Was Used	28
Why Social Media Was Used	34
Theoretical Implications	41
Managerial Implications	47
Limitations and Future Directions	49
Conclusion	51
3. PREDICTING SPORT CONSUMERS' DIGITAL BEHAVIOURS: UNDERSTANDING ELEMENTS OF SOCIAL MEDIA ENGAGEMENT	52
Literature Review.....	54
SX Framework	55
Social Media Scholarship	58
Methods.....	66
Measures	67
Data Mining	71
Determinants of Facebook Behaviour	72
Results.....	72
Discussion.....	75
Determinants of Twitter Behaviour	76
Discussion.....	79

General Discussion	80
Theoretical Implications	82
Managerial Implications	88
Limitations and Future Directions	89
Conclusion	91
4. UNDERSTANDING DIGITAL EXPERIENCES: OPTIMIZING TIMING OF ADVERTISEMENTS IN MULTI-SCREEN VIEWING ENVIRONMENTS.....	93
Literature Review.....	95
Multi-Screen Viewing and Advertising	95
Hypothesis Development	97
Method	102
Participants.....	103
Design	103
Stimulus development.....	104
Measures	106
Results.....	107
Discussion.....	111
Theoretical Implications	113
Managerial Implications	115

Limitations and Future Directions 117

Conclusion 119

5. CONCLUSION..... 121

REFERENCES 126

APPENDICES

A. SCREEN SHOT OF CUSTOM APP..... 142

B. ADS 143

LIST OF TABLES

Table	Page
1. Sport Management Scholarship Examining Motivations of Social Media Usage	15
2. Participant Profiles.....	26
3. Sport Management Scholarship Considering Determinants of Social Media Usage	60
4. Frequency and Summary of Determinants and Response Feature for Facebook	69
5. Frequency and Summary of Determinants and Response Feature for Twitter	70
6. Descriptive Statistics of Focal Variables	108
7. Pair-wise Comparison of the Effect of Timing on Ad Recall.....	109
8. Pair-wise Comparison of the Effect of Timing on Ad Recognition	110

LIST OF FIGURES

Figure	Page
Figure 1. Amended U&G Theory	45
Figure 2. Relevance of the Determinants for Total Engagements	73
Figure 3. Relationship between Determinants and Total Engagements	74
Figure 4. Relevance of the Determinants for Total Engagements	77
Figure 5. Relationship between Determinants and Total Engagement	78
Figure 6. SX Framework v2.0.....	83
Figure 7. Mean Ad Recall and 95% Confidence Interview by Ad Timing	110
Figure 8. Mean Ad Recognition and 95% Confidence Interview by Ad Timing	111

CHAPTER 1

INTRODUCTION

Marketing and communication in the sport industry are continually evolving based on the most recent advancements in technology. Specifically, the disruptive impact of social media in the sport industry is consistent across metrics, such as time spent using social media and advertising market share, and is supported by various anecdotal examples, such as viral content generating millions in advertising revenue (Aral & Zhao, 2019). Social media has fundamentally altered the sport communication paradigm (Hambrick, Simmons, Greenhalgh, & Greenwell, 2010), with limited research examining audience consumption and effects (Pedersen, 2013). Advancements in technology have also led to shifts in media consumption habits, shifting preferences from traditional linear programming towards digital, on-demand programming (Nielsen, 2019). Moreover, there has been a rise in multi-screen consumption, with consumers overlapping device usage; 81% of U.S. consumers use an additional device(s) while watching TV (Statista, 2017b). By fundamentally altering marketing and communication in the sport industry, these advancements in technology are forcing marketers to re-evaluate how they navigate the digital marketing landscape.

Given these new digital marketing channels that marketers must embrace, many have questions on how to employ, optimize, and measure their digital marketing efforts. For example, with respect to social media marketing, at least 85% of marketers are interested in discovering the best ways to engage with their audience, improve organic

reach, acquire new consumers, measure and analyze social media activities, use social ads, and create social videos, and they are also looking to identify the most effective social media tactics (Stelzner, 2019). Moreover, the top marketing challenges that companies face include generating traffic, effective measurement, targeting content, and identifying appropriate technologies (An, 2018). Sport marketers often rely on third party companies such as Opendorse to help manage social media (D. Cohen, 2019), frame a specific business problem, gather data, and construct a narrative (Leaks, 2016). Thus, although digital marketing has been prevalent for years, it still presents marketers and organizations with challenges, particularly with respect to effectively employing and measuring social media.

In turn, there are calls within academia to research areas related to understanding and optimizing digital marketing to provide the industry with guidance. For example, there are calls to understand technology's role and impact on consumption experiences (Funk, 2017) and to investigate the strategic use of new media by sport organizations and how these endeavors are being measured and evaluated (Pedersen, 2013). The current research responds to these calls in a series of three essays focused on optimizing digital marketing in the sport industry.

Though sport marketing is based on the principles of general marketing, the unique nature of the sports industry requires specific adjustments to be made. In other words, "almost every element of marketing requires significantly different approaches when the product being marketed is sport" (Mullin, 1985, p. 158). There are three main

aspects, namely the sports industry, product, and consumer, that distinguish sport marketing from general marketing.

The sport industry is unique for a number of reasons. First, its competition structure is likened to a cartel, with professional leagues or governing bodies setting the rules with respect to the game and competition. The behaviour of an industry body determining the number of producers and resource allocation would be seen as illegal in many other industries (Szymanski & Kuypers, 1999). Next, sport organizations purposefully retain a level of parity amongst themselves. Unlike typical organizations focused on maximizing profits, sport organizations have additional measures of success or attractiveness, namely viability and winning games (Shilbury, Westerbeek, Quick, & Funk, 2009). Finally, the sport industry is distinguished from other industries due to the public perception of sports, with organizations garnering an unparalleled level of media coverage and personal identification among consumers (Morrow, 1999; Shilbury et al., 2009).

The sport product and consumer also distinguish sport marketing. The sport product itself is unique as it is a joint product between multiple teams or individuals. Furthermore, sport marketers have no control over the quality of the product with the sport event itself being spontaneous and unpredictable (Shilbury et al., 2009). Effectively, the unpredictable and uncontrollable nature of the sport product (e.g., being unable to know if a game will be a narrow win by a consumer's favourite team eliciting feelings of joy or excitement or a blowout loss resulting in feelings of disappointment and sadness) creates a myriad of unique challenges for sport organizations and marketers unfound in

other industries (Shank & Lyberger, 2015). Finally, the sport consumer is unique as fans show a level of passion and loyalty above and beyond that which would be displayed towards a preferred brand. This affects their behaviour; for example, sport consumers' purchase decisions are often without a choice (e.g., a fan would rarely change their allegiance to another team due to ticket prices whereas a general consumer could toggle between brands based on price) as part of being a fan is purchasing countless sport related products regardless of quality or price (Cashmore, 2003). Effectively, the unique nature of the sport industry, product, and consumer result in a number of challenges and implications for marketers, distinguishing sports marketing from general marketing.

Although all departments within the sport industry have been impacted by advancements in technology, this collection of work focuses on the impacts realized in marketing and communication. Due to the importance of social interaction (e.g., key motive in sport consumption) (Funk, Filo, Beaton, & Pritchard, 2009) and communication in sport (Pedersen, 2013), this is an important area to consider. Moreover, industry reports continually underscore the importance of sport organizations responding to technological trends within their marketing and communication strategies, such as by moving advertising spend to digital and social channels (e.g., Giorgio, 2018). As such, there exists a need to better understand the impact of technology on marketing and communication efforts, with an emphasis on optimization. Doing so will improve usability and pleasure among sport media consumers.

This dissertation draws upon the Sport Experience Design (SX) framework to conceptualize the sport experience and help illustrate the nuances necessary to investigate

to improve usability and pleasure among sport media users. According to the SX framework, sport experiences are comprised of interactions among three interrelated elements: the user (and their unique psychological and cognitive nature), the context (including man-made physical and digital environments facilitating the experience), and the organization (specifically, the host organization such as a sport brand or team) (Funk, 2017). To fully understand a sport experience, such as the usage of digital media, it is necessary to consider these three elements and their interactions simultaneously.

Therefore, this collection of essays comprises three pieces of work that consider the user, context, and organization as well as their interactions to holistically understand digital marketing and communication. Essay One focuses on re-examining the use and application of Uses and Gratifications (U&G) Theory in sport management social media scholarship, with an emphasis on returning to the original question motivating this theory. By examining what consumers are doing with their social media, Essay One provides a foundational understanding of how and why consumers use new technologies in their sport experiences. Moreover, by returning to the original focus of U&G Theory, this research identifies how not all social media use is as purposeful as assumed by the theory resulting in the proposal of an augmentation to its current application. In turn, the insights garnered in Essay One help to inform sport organizations' marketing and communication strategies.

Building on the accrued knowledge of Essay One, specifically that related to the subjective determinants of social media usage behaviour, Essay Two aims to uncover the objective elements affecting social media usage. It does so by employing predictive

analytics and a sensitivity analysis to unearth characteristics (e.g., date, time, etc.) of social media posts that predict user engagement to allow for the optimization of social media by sport organizations. This identification of the objective determinants of social media engagement complements the subjective determinants identified in Essay One. Collectively, both Essays One and Two explore social media usage behaviour to identify patterns and trends that can inform sport organizations, allowing them to optimally design and execute social media marketing and communication strategies.

Finally, Essay Three considers a prominent media consumption experience to better understand how marketing and communication can be optimized in a specific sport experience, multi-screen viewing. It features a lab experiment investigating marketing in multi-screen viewing environments, providing organizations with data-driven insights derived from consumer behaviour to improve marketing effectiveness. Essay Three identifies the importance of timing when advertisements (ads) appear on the second screen based on the content of the sport event on the primary screen to increase advertising effectiveness. This is necessary because of the limitations of humans' cognitive processing capabilities and limited ability to simultaneously process multiple sources of information. Consequently, Essay Three outlines the complexity of advertising on a second screen in a multi-screen viewing reality while providing insight to advertisers as to how to optimally distribute their ads. Individually and collectively, this series of essays provides important theoretical and managerial implications for sport organizations and marketers alike. Due to the unique nature of sport marketing, the implications are

largely realized within the sport industry, however, when broader conclusions can be drawn outside of the sport industry, it is articulated.

Implications

Each essay individually makes important contributions that will be discussed in detail in the corresponding chapter. In brief, Essay One challenges the existing application of U&G Theory among sport management social media scholarship and proposes an augmentation to the theory. It also identifies a set of core motivations to allow for scholarship to advance beyond solely identifying various motivations driving sport social media usage. It provides insights that allow organizations to strategically design and distribute their social media content as well as effectively develop mobile applications. Next, Essay Two advances our knowledge by (i) exposing the limitations in the existing explanation of the SX framework by outlining the complexities which arise in the new digital reality and (ii) extending our knowledge on determinants of social media usage to engagement, rather than followership, by using machine learning techniques to capture the clustered, complex nature of social media usage. It unearths important determinants of social media engagement that organizations can leverage to optimize social media strategies. Finally, Essay Three extends theoretical knowledge related to advertising in multi-screen environments by investigating three new areas: (i) advertising on the second screen, as opposed to the primary screen, (ii) timing of ads relative to primary screen content, and (iii) the impact of enduring sport involvement or personal relevance on ad memory. It indicates how to time pop-up ads appearing on the second screen as well as outlines the possibility of effectively advertising on the second

screen, allowing organizations to optimize their marketing and communication strategies in multi-screen viewing environments.

Although these essays are presented as a collection, their focus is on each providing individual contributions based on their unique perspectives and theories. Thus, the parallels that can be drawn between results to confirm or refute findings across the studies are discussed in the final chapter of this work. Collectively, these essays suggest ways to optimize digital marketing and communication, in turn providing the sport industry with answers to their questions surrounding the ideal way to engage with their audience and generate traffic, measure and analyze marketing efforts, and effectively identify and use digital media channels (An, 2018; Stelzner, 2019).

CHAPTER 2

UNDERSTANDING SPORT SOCIAL MEDIA USAGE: AN EXAMINATION OF USES AND GRATIFICATIONS THEORY

An important element of the sport industry is sport media, which provide consumers access to live games, news, and commentary. Advancements in technology have fundamentally altered sport media, and organizations must now contend with an ever-increasing number of platforms and channels on which they must interact with and attract new consumers. Social media, the collection of Internet-based applications built and drawing upon Web 2.0 technologies to facilitate the creation and exchange of user generated content (Kaplan & Haenlein, 2010), are examples of new technologies that are shifting the sport communication paradigm (Hambrick et al., 2010). For example, the impact of social media is evident in the top three media market disruptors in sports, namely (i) the proliferations of new platforms (e.g., digital media, apps, etc.) to deliver sport content to fans, (ii) the expansion of mobile Internet and ubiquitous access to sport content using mobile devices, and (iii) changing rights with respect to sport distribution strategies to favour direct relationships with fans (e.g., social media following) (Dellea, 2017). These technological disruptions are changing and shaping the way fans consume sports and experience sporting events (Filo, Lock, & Karg, 2015). As such, it is important to understand this disrupting force and its impact on sport consumer experiences.

A foundational element of media experiences is consumer motivation, as it drives and sustains consumption according to Uses and Gratifications (U&G) Theory. U&G

Theory outlines how the media audience is active or purposeful (i.e., making conscious choices about their media) and goal directed in their media consumption (Katz, 1959; Katz, Blumler, & Gurevitch, 1973). Namely, consumers purposefully evaluate and select a media to use based on its ability to meet their needs, and they only continue using said media so long as it continues to satisfy their needs. These motivations are important to understand because of their role in driving media selection and usage.

Consequently, existing sport management scholarship has begun to identify various reasons fans embrace social media in a variety of contexts, most frequently through the lens of U&G Theory. This has resulted in a plethora of motivations of sport social media usage, summarized by Filo et al. (2015) as interactivity, information gathering, entertainment, fandom, and camaraderie. However, such a summary fails to capture the diversity of the literature, with motivations often varying from study to study. For example, research has focused on why sport fans use social media broadly (e.g., Clavio & Frederick, 2014) and by platform such as Facebook (e.g., Sanderson, 2013) and Twitter (e.g., Gibbs et al., 2014; Witkemper, Lim, & Waldburger, 2012), identifying a separate typology of motivations each time. Studies presenting distinct sets of motivations with limited scholarship synthesizing results across studies to understand if a core set of motivations has been identified is a limitation of existing scholarship. Also, this line of scholarship frequently employs U&G Theory as a lens to guide motivation research without a critical examination of its appropriateness or application.

The current widespread application of U&G Theory in sport management social media scholarship largely focuses on answering why consumers use social media, rather

than the original question motivating U&G Theory, namely “what do people do with media?” Moreover, existing sport management social media scholarship employing U&G Theory often falls prey to the typical criticisms of the theory. For example, the nature of U&G Theory forces studies to be individualistic – limiting the generalizability of findings – and too compartmentalized, making it difficult to synthesize results (Ruggiero, 2000). Specifically, rather than generating a general understanding of motivations driving sport social media usage, a distinct typology of motives is produced by each study.

Furthermore, there has been a lack of clarity and centrality among core concepts in U&G Theory (Swanson, 1977). U&G Theory concepts, such as “use”, “gratification”, and “motive”, are often used without a precise meaning. In turn, U&G Theory has primarily been limited to a motivational theory, often applied to justify the identification of motivations in a given context. By applying U&G Theory without considering how sport social media is used by consumers, existing scholarship is again limited. Prior criticisms of U&G Theory outline how it overstates the activeness or purposefulness of consumers (White, 1994), with competing theories suggesting media use is more habitual and unconscious in nature (e.g., Hofmann, Friese, & Strack, 2009). This perspective is consistent with sport social media usage which tends to be one-sided in nature, with consumers often lurking rather than participating (Clavio, Burch, & Frederick, 2012; Clavio & Frederick, 2014; O’Hallarn et al., 2018; Walker, Hodge, & Bennett, 2017).

Therefore, this research critically examines the use and fit of U&G Theory in existing sport management social media scholarship by conducting an in-depth examination of what people do with sport social media. Results indicate that the level of

purposefulness of a given consumer exists on a continuum from habitual to purposeful, calling for an augmentation to the current use and application of U&G Theory by sport management scholars. It also identifies a consistent core set of motivations that transcend social media usage. These results challenge the existing understanding of how and why consumers use sport social media, outlining that not all media consumption is done in a purposeful manner and suggesting a need to shift beyond identification of motivations in sport social media scholarship.

Literature Review

U&G Theory

Early mass communication researchers sought to answer: “what do the media do to people?” However, in response to a struggling communication field and an understanding that there was more to mass communication than persuasion, the question “what do people do with media?” arose (E. Katz, 1959). Lasswell (1948) originally proposed that media facilitated the fulfilment of four functions, namely diversion, personal relationships, personal identity, and surveillance (McQuail, Blumer, & Brown, 1972). This idea, combined with evidence of TV ratings (i.e., if consumers did not like a show, they did not watch it), inspired the notion that consumers are active (i.e., deliberate and purposeful) in their media consumption. This approach centers around the idea that media is only useful when consumers have use for it in the social and psychological context in which it lives (E. Katz, 1959). Thus, U&G Theory is grounded in the notion that individuals select media based on satisfying a need and only continue media usage so long as that need continues to be satisfied (E. Katz et al., 1973). Moreover, individuals

select the optimal media available based on their current needs. Effectively, the theory is built on two assumptions: consumers are (i) purposeful in the selection of the media they consume and (ii) aware of their reasons for selecting different media options.

New media, including Web 1.0, Web 2.0, and social media, gave credibility to U&G Theory, as they provided a wider range of media types and sources from which to select (Ruggiero, 2000). Effectively, the Internet is the ultimate example of individualism, as it allows individuals to select which content they view and create (Singer, 1998). The interactive nature of the Internet lent itself well to U&G Theory, while other communication theories struggled to adapt (Ruggiero, 2000).

Based on this resurgence, U&G Theory was applied across new media settings such as mobile phones (Leung & Wei, 2000), text messaging (Grellhesl & Punyanunt-Carter, 2012), the Internet (Stafford, Stafford, & Schkade, 2004), social media (Whiting & Williams, 2013), and online gaming (Wu, Wang, & Tsai, 2010). Its application was primarily limited to a motivational perspective, asking why consumers use a media resulting in a myriad of lists of motivations across studies depending on the technology and context considered. With respect to social media usage, general scholarship has identified a range of motives including social interaction, pass time, information seeking, entertainment, relaxation, communicatory utility, convenience utility, expression of opinion, information sharing, and surveillance/knowledge about others (Whiting & Williams, 2013). Similar motivations have been identified in sport management scholarship.

U&G Theory and Sport Social Media Usage

U&G Theory is the dominant theoretical framework employed in sport social media scholarship (Abeza, O'Reilly, Séguin, & Nzindukiyimana, 2015). Building on the assumptions of U&G Theory, which hold that media users are purposeful in their media selection and are aware of the reasons driving media usage, this line of scholarship has focused on identifying the motivations driving sport social media usage, most often through online surveys with respondents rating the degree to which they agree with a pre-set list of motivations. As illustrated in Table 1, this has resulted in a myriad of separate typologies of motivations of sport social media usage across studies. For example, Clavio and Kian (2010) found that an important motivating factor for following an athlete's Twitter was the perception of the athlete as an expert, with followers' motivations captured under three categories: organic fandom, functional fandom, and interaction. Clavio and Frederick (2014) focused on why consumers embraced a specific feature of social media, namely social sharing, finding the two factors of promotion and fanship and personal gain. Gibbs et al. (2014) focused on a specific sport, finding that Canadian Football League (CFL) fans used social media for interaction, promotion, live game updates, and news. Meanwhile, Billings et al. (2018) and Lewis et al. (2017) considered social media more broadly, finding 12 motivations: arousal, passing time, camaraderie, entertainment, self-expression, habitual use, information surveillance, escape, building a virtual community, companionship, coolness, and maintaining relationships. Effectively, Table 1 illustrates that a variety of motivations driving sport social media use have been identified in sport management scholarship, with the exact list varying between studies.

Table 1.

Sport Management Scholarship Examining Motivations of Social Media Usage

Author(s) (Year)	Framework / Construct	Social Media Platform(s)	Account Holder(s)	Motivations
Billings et al. (2018)	U&G Theory	Facebook, Twitter, Weibo, WeChat	Team-managed, mainstream media, and fan- generated accounts	Motives considered: <ul style="list-style-type: none"> • Arousal • Passing time • Camaraderie • Entertainment • Self-expression • Habitual use • Escape • Information surveillance • Building a virtual community • Companionship • Coolness • Maintaining relationships
Billings et al. (2017)	U&G Theory	Snapchat, Twitter, Instagram, Pinterest, and Facebook	General sport	Motives considered: <ul style="list-style-type: none"> • Information seeking • Relaxation • Social interaction • Escape
Clavio & Frederick (2014)	U&G Theory	General social media, focus on social sharing	N/A	Two factors: <ul style="list-style-type: none"> • Promotion and Fanship – items focused on promotion of the event and social benefits of sharing • Personal Gain – items focused on earning prizes, discounts, and online recognition

Table 1. (*continued*)

Author(s) (Year)	Framework / Construct	Social Media Platform(s)	Account Holder(s)	Motivations
Clavio & Kian (2010)	U&G Theory	Twitter	Retired LPGA golfer	Three factors: <ul style="list-style-type: none"> • Organic Fandom – items focused on personally oriented fandom (e.g., perceived entertainment of athlete, viewing athlete as a role model, and following athlete’s career) • Functional Fandom – items focused on impersonal fandom (e.g., purchasing athlete’s products, athlete’s physical appearance, and business-related purposes) • Interaction – items focused on fandom provided by Twitter experience (e.g., interacting with athlete and other fans)
Filo et al. (2015)	Service- dominant Logic	General social media	N/A	Review article summarizing motives across existing studies as <ul style="list-style-type: none"> • Interactivity • Information gathering • Entertainment • Fandom • Camaraderie
Frederick et al. (2012)	U&G Theory; Parasocial Interaction	Twitter	Two athletes of “Big Four” sports – one social, one parasocial	Social athlete – Four Factors: <ul style="list-style-type: none"> • Consumption – items related to entertainment and news (e.g., perceived entertainment of athlete and information availability) • Admiration – items related to social status (e.g., viewing athlete as a role model or celebrity) • Promotion – items related to businesses (e.g., purchasing products) • Community – items related to fandom and belonging (e.g., fandom and sense of camaraderie) Parasocial athlete – Four Factors: <ul style="list-style-type: none"> • Newsgroup – items related to information gathering and fan communities (e.g., perception of information available and belonging to a community) • Modeling – items related to businesses and role (e.g., stay current and viewing athlete as a role model) • Engaged Interest – items related to interactivity and shared interests (e.g., perceived common interest with the athlete) • Media Use – items related to Twitter services (e.g., personal content)

Table 1. (*continued*)

Author(s) (Year)	Framework / Construct	Social Media Platform(s)	Account Holder(s)	Motivations
Gibbs et al. (2014)	U&G Theory	Twitter	CFL	Four Factors: <ul style="list-style-type: none"> • Interaction – items related to interaction and discussions (e.g., interacting with other fans, participating in discussions, and providing input and opinions) • Promotion – items related to promotions and discounts (e.g., receive special promotions or discounts and enter contests) • Live game updates – items related to news (e.g., follow game updates and follow conversations while watching the game) • News – items related to information releases (e.g., hear about player updates and receive photographs and videos)
Larkin & Fink (2016)	Identity Theory	General social media	“Favourite team”	Use in-game social media to: <ul style="list-style-type: none"> • Enhance team identity and manage multiple identities • Follow and participate in conversations about their team • Avoid FoMo (Fear of Missing Out)
Lewis et al. (2017)	N/A	General social media	Team-managed, mainstream media, and fan- generated accounts	Motives considered: <ul style="list-style-type: none"> • Arousal • Passing time • Camaraderie • Entertainment • Self-expression • Habitual use • Escape • Information surveillance • Building a virtual community • Companionship • Coolness • Maintaining relationships
Mahan et al. (2015)	N/A	General social media (and social networking sites)	Running accounts	Motivational antecedent of related social media usage <ul style="list-style-type: none"> • Enduring psychological connection with the sport

Table 1. (*continued*)

Author(s) (Year)	Framework / Construct	Social Media Platform(s)	Account Holder(s)	Motivations
Mumcu & Lough (2017)	N/A	General social media	WNBA	Motivational antecedent of related social media usage <ul style="list-style-type: none"> • Sport Fandom
Popp & Woratschek (2016)	N/A	Branded communities	Football	Motivational antecedents include <ul style="list-style-type: none"> • Interest in the content (or sport) • Opportunity to interact with other users
Ruihley & Harding (2011)	U&G Theory	Message Boards	Fantasy Sports	Themes: <ul style="list-style-type: none"> • Logistical conversation – items related to specific discussions about relevant topics (e.g., general banter, discuss players, trends, trades, etc.) • Socializing – items related to trash talking, interacting with other members, and general chat • Surveillance – items related to information gathering, seeking, and sharing (e.g., acquire information, updates on players and teams, etc.) • Advice or opinion – items related to seeking advice or other perspectives (e.g., advice or positive reassurance about a roster move or trade)
Sanderson (2013)	Social Identity	Facebook groups	University of Cincinnati anti- coach group	Content analysis indicates that fans use social media groups when social identity is threatened
Uhrich (2014)	Value co- creation	General social media (as well as physical locations)	Various European professional sports	Use technology in the value co-creation process with other consumers for: <ul style="list-style-type: none"> • Associating / Disassociating • Engaging / Sharing • Competing • Intensifying • Exchanging
Wakefield (2016)	Passion	Twitter and Facebook Usage	Local MLB or MLS team	Antecedents of Facebook and Twitter usage: <ul style="list-style-type: none"> • Passion • Social identification • Sport Spectator Identification

Table 1. (*continued*)

Author(s) (Year)	Framework / Construct	Social Media Platform(s)	Account Holder(s)	Motivations
Walker et al. (2017)	N/A	Virtual fan community (VFC) sites	College sport	Attitude towards VFC sites influences time spent on the site
Weiner & Dwyer (2017)	U&G Theory	Various media including social media	Fantasy sports	Motives positively correlated with increased media consumption by fantasy sport player type: <ul style="list-style-type: none"> • Daily: entertainment, escape, and gambling • Hybrid: social interaction and gambling • Traditional: social interaction, competition, and gambling
Witkemper et al. (2012)	Relationship Marketing	Twitter	General athletes' accounts	Motives considered: <ul style="list-style-type: none"> • Information – items related to information and news updates about the athlete • Entertainment – items related to the excitement, coolness, and amusement in following an athlete • Pass-Time – items related to occupying time and relieving boredom • Fanship – items related to being a fan of the athlete

Across these studies, U&G Theory is frequently applied to justify the identification of a typology of motivations for a given social media operationalization (e.g., why users follow a specific athlete on Twitter or why users use Facebook for sport related content). Although this application of U&G Theory is consistent with its underlying assumptions, specifically the purposefulness of consumers who are able to identify their motivations, these studies often do not critically examine the application of U&G Theory and thus fall victim to its criticisms.

Criticisms and Limitations of U&G Theory

A number of criticisms of U&G Theory have emerged since its introduction. First, U&G Theory has been criticized for the nature of the theory forcing it to be individualistic, limiting generalizability of findings, with studies being too compartmentalized and failing to synthesize results (Elliott, 1974; Ruggiero, 2000). Specifically, the individualistic nature of U&G Theory results in studies only identifying a set of motivations driving media usage among those particular consumers for that specific media. In turn, the findings lack generalizability because it is unclear whether other users would have the same motivations or if these motivations would transcend different media operationalizations. Moreover, conceptual development is hindered due to the myriad of motivations identified across studies, with limited synthesis occurring to produce general knowledge. This is evident in sport management social media scholarship as there are a myriad of separate typologies of motivations across studies, in part a result of the researchers themselves.

Another criticism of U&G Theory is that the motivations are more dependent on the researchers' input than that of the participants. A lack of a clear set of motivations results in researchers determining a separate set of motivations for each study and/or capturing the same motivation in different ways. For example, Billings et al. (2017) identified the motivation of information seeking, a common motivation identified in a summary of motivations of sport social media use (Filo et al., 2015) as well as in general social media use (Whiting & Williams, 2013). Though information seeking is a common motivation, how it is operationalized varies across studies. For example, Gibbs et al. (2014) identified it as two separate motivations (i.e., live game updates and news), while Frederick et al. (2012) captured it under the factors of consumption when following social athletes and newsgroup when following parasocial athletes. Meanwhile, Ruihley and Harding (2011), Billings et al. (2018), and Lewis et al. (2017) conceptualized information seeking under the motivation of information surveillance. Furthermore, what is treated as a single motivation by some scholars, such as information seeking (e.g., Billings et al., 2017; Witkemper et al., 2012), can be subdivided by other scholars and split into separate motivations by the type of news being consumed (e.g., Gibbs et al., 2014; Ruihley & Hardin, 2011). This makes it difficult to ascertain a clear understanding of what motivations exist, which results in subsequent research efforts unable to draw from an agreed upon set of motivations. This leaves researchers developing a unique set of motivations across studies, contributing to the criticism that the motivations are more dependent on researchers' input than the subjects.

A lack of a universal list of motivations for social media usage is related to the next criticism of U&G Theory seen throughout sport social media scholarship, namely a lack of clarity and precision among central concepts (Elliott, 1974; Ruggiero, 2000). Specifically, U&G Theory concepts including “use”, “gratification”, “motive”, and “need” are often used loosely and without a precise meanings or definitions (Swanson, 1977). For example, “use” can refer “to a cause (motive), an effect (consequence), or a process” (Swanson, 1977, p. 218). Moreover, these terms often go undefined in sport management social media scholarship, as the scholarship often focuses on identifying a list of motivations without paying attention to whether they are definitionally motivations, gratifications sought, gratifications obtained, or uses. The resulting application of U&G Theory has been limited to a motivational perspective, asking why consumers use a media. Consequently, this research employs the term motivation, to reflect the motivational focus consistent across existing scholarship. This however, is a different focus than that originally posed in the creation of U&G Theory, namely, “What do people do with media?” (E. Katz, 1959).

Existing sport management social media scholarship is limited by only focusing on why consumers use social media, rather than considering what people are doing with the media. In other words, there has been an omission of how social media is being used, despite the fact that how it is being used will likely be intertwined with why it is being used. For example, there is a large degree of overlap between motivations identified for general social media usage (e.g., Whiting & Williams, 2013) and those for sport social media usage (e.g., Billings et al., 2018; Lewis et al., 2017), with limited

acknowledgement that sport content represents one type of content on an integrated social media feed. Moreover, motivations may contradict how social media is being used. For example, interactivity is a frequently cited motivation (Filo et al., 2015), but this conflicts the passive mannerisms sport consumers embrace on social media. Existing sport management research indicates consumers use platforms to lurk, rather than post content (Walker et al., 2017) resulting in low participation rates (Clavio & Frederick, 2014). For example, Twitter is used to follow conversations, often organized through hashtags, but not with the intention of engaging in the conversation (O'Hallarn et al., 2018) and network analyses indicate that users' relationships are generally one-sided (Clavio et al., 2012). Consequently, U&G Theory may be resulting in scholarship overstating how deliberate and purposeful consumers are in their social media usage. In turn, this calls into question if the underlying assumptions of U&G Theory are met; namely, is the deliberativeness or purposefulness of consumers overstated?

U&G Theory has been criticized by scholars as overstating the purposeful nature of audience members (White, 1994). Competing scholarship suggests that media consumption is predominantly automatic in nature, often determined by the impulsive system (LaRose, 2010). Under the impulsive system, behavioural tendencies have emerged over time, resulting in cues signaling a specific reaction (Hofmann et al., 2009). Consequently, such media behaviour would be automatic and habitually performed without deliberation, evaluation, goal setting, or judgement. U&G Theory is built on the assumptions that users are purposeful and able to identify the motivations driving their media usage. A more habitual, automated behaviour would contradict and challenge

those underlying assumptions. Therefore, if repeated social media use has resulted in habits or learned behavioural tendencies, it would challenge the underlying assumptions of U&G Theory as well as its unilateral focus on motivation. Consequently, a return to the original question posed, “what do people do with media?” is warranted to ensure the underlying assumptions are met for U&G Theory to be appropriate. Moreover, a critical examination of what people are doing with media sheds light on their media related behaviours and motivations, in turn addressing the aforementioned criticisms and limitations of U&G Theory and its use in sport management scholarship. An in-depth qualitative approach is employed to examine what consumers are doing with sport social media. In turn, answering the following research question:

Research Question: What do people do with sport social media?

Method

Data Generation

Recruitment of participants was conducted using a purposeful sampling strategy followed by a snowball recruitment strategy. A non-probability convenience sample was used to access fans, following past research precedents (e.g., Collins, Heere, Shapiro, Ridinger, & Wear, 2016). By announcing the call for participants on social media, participants could then volunteer for the study. Subsequently, a snowball recruitment strategy was used to collect participants with a variety of online presences, not just highly engaged users connected to the researchers on social media.

In total, 22 social media users were interviewed for an average of 31 minutes and 22 seconds; specifically, 11 males and 11 females between the ages of 20 and 44.

Participant profiles are available in Table 2. Even though theoretical saturation was achieved at approximately 15 participants, additional interviews were conducted to ensure a diverse range of participants were included. For example, fans were recruited who followed a range of sports (e.g., professional sport leagues as well as more niche sports), had a range of fandom levels (e.g., casual fans through to hardcore fans), were a range of ages (e.g., older and traditional social media users), had a range of careers (e.g., both in and outside of the sport industry), and had a range of social media usage habits (e.g., lurking only to frequently posting, many accounts versus few accounts, etc.). To collect such a range of sport social media users from a variety of locations across North America, phone interviews were used. This approach allowed participants from a wide geographic range to be interviewed and provided flexibility regarding scheduling (Hanna, 2012)

Table 2.
Participant Profiles

ID	Pseudonym	Gender	Daily Social Media (hours)	Platforms Used (approximate proportion of time per platform in percentages)									
				Facebook	Instagram	LinkedIn	Pinterest	Reddit	SnapChat	TikTok	Twitter	WhatsApp	
1	Dillion	Male	1	8	25							67	
2	Jimmy	Male	3.5		14			29				58	
3	Lincoln	Male	8-11	33*	33							33	
4	Sally	Female	4.5	< 5	33				11*	33*		22	
5	Noah	Male	3		11*			67				22	
6	Lucas	Male	3.2	5	63*			< 5				32	
7	Dixie	Female	2.2	30	60	5*			5*				
8	Mia	Female	1.5	22*	78								
9	Olivia	Female	3-4	5*	60				15*	15*		5	
10	Ben	Male	2-3	20*	15*			5				60	
11	Watson	Male	1-2		95							5*	
12	Kylo	Male	4-5	9*	73*	12						6	
13	Jaxton	Male	2.7	50								50	
14	Carson	Male	1.5	5*	90			5					
15	Austin	Male	1		90								10*
16	Evelyn	Female	4-5	30	30	10*		10				20*	
17	Scarlett	Female	2	30	60							10	
18	Madison	Female	1-2	5	40		5*	40					5
19	Avery	Female	2-3	15	20		15*		20*	30*		5	
20	Riley	Female	1	67*	33			5					
21	Layla	Female	2	30	45				10*				
22	Eleanor	Female	1	X*	X*						X*	X	X*

Note. * Indicates this platform was used to follow minimal to no sport content; X indicates usage conditional upon notifications; Percentages may not add to 100 due to rounding or respondent error; YouTube was not included as no participant used it as a social media platform (e.g., to like, subscribe, comment on, or generate content), rather usage was limited exclusively to watching videos as a streaming platform

Semi-structured interviews were selected as the data collection means for two primary reasons. First, it was anticipated that consumers would have different preferences, habits, and experiences using social media. A standardized interview would make it difficult to tease out consumer-level nuances. Second, semi-structured interviews are well suited for the “exploration of the perceptions and opinions of respondents regarding complex and sometimes sensitive issues and enable probing for more information and clarification of answers” (Barriball & While, 1994, p. 330). Since the current research was seeking a detailed investigation, an in-depth technique was required. An interview guide was followed with follow-up probing questions when appropriate to understand unique answers (Kvale & Brinkmann, 2009).

Data Analysis

The interview transcripts were transcribed verbatim. The data were imported into QSR Nvivo 10 to facilitate the coding process. The text data were analyzed using the seven-step process outlined by Creswell (2013), as this process encourages transparency in data analysis to support the validity of the data generation. Next, the initial researcher provided the list of codes and a portion of the data to an independent coder to determine if they would code the data similarly (Gibbs, 2007). Any discrepancies in coding were discussed, reanalyzed, and recoded until Cohen’s kappa coefficient was above .75 (Fleiss, Levin, & Paik, 2003).

Data Validity

Triangulation was used to assess for credibility (Krefting, 1991). The convergence of numerous perspectives to achieve mutual confirmation of data ensured all relevant

aspects of the phenomenon were investigated (Knafl & Breitmayer, 1989). A version of a stepwise replication technique was employed (Guba, 1981) and a code-recode procedure (where there was at least a two week time delay between coding and recoding a segment of data) was used to enhance dependability (Krefting, 1991). Triangulation of multiple data sources, methods, and/or theoretical perspectives was used to strengthen confirmability (Krefting, 1991). Finally, reflexive analysis was useful to ensure the researcher was cognizant of their own influence on the data.

Results and Discussion

The conversations about what people were doing with their sport social media led to two distinct but interrelated themes: how social media was used and why social media was used. The first theme shed light on how social media usage can range from habitual to purposeful, while the second theme identified a core set of motivations consistent across social media operationalizations.

How Social Media Was Used

Discussions surrounding how social media was used had five themes (123 total mentions): passively (35 mentions), distinctly (19 mentions), periodically (22 mentions), unconsciously (13 mentions), and universally (34 mentions). These themes are explained below.

Passively. The first theme that emerged was the tendency to use social media passively; this means specifically to read and consume content, but not to interact with or (co-)create it. This was consistent with past research, which has found that sport consumers tend to lurk on digital media in lieu of being active users (Walker et al., 2017)

and enjoy following conversations, but not engaging with them (O'Hallarn et al., 2018).

Participants were cognizant of this behaviour; Noah admitted "I just lurk" and Kylo stated "I'm more of a lurker". Similarly, Watson said

I don't post often, if at all, maybe the odd story here and there, but I'm very much on it every day for the reading and the consuming, and the "time-wasting piece". I do a lot of that, but I don't contribute back.

This behaviour was confirmed by a content creator, Scarlett, a nationally ranked amateur athlete, who expressed the low engagement her posts would receive relative to view counts. Overall, participants did not feel a need to post, often citing a desire to maintain privacy. For example, Layla stated "I just prefer to not have myself all over the Internet." Additionally, some expressed a lack of confidence in their own content; for example, Evelyn said "I just don't think people care what I have to say." Finally, they also expressed that posting was not conducive with their personality and behaviour. For example, Carson said "I don't feel much compulsion to post things." Thus, despite social media by definition featuring user generated content (e.g., Kaplan & Haenlein, 2010), users did not feel a need to generate content, instead choosing to consume content in a manner more consistent with traditional media. This resulted in consumers viewing curated content; this was captured by Layla, who said, "most virtual content that I see is all very curated content", because posting was limited primarily to influencers and professional content generators as opposed to friends and family members on their personal accounts.

Periodically. The second theme that emerged was the periodic use of social media for brief spans of time. Though social media usage may have totaled a significant amount of time daily, such as Sally estimating four to five hours of usage a day, that time

was not concentrated. Sally went on to describe her usage as “on and off, not straight through, but just throughout the day – like I'll go on here and scroll.” Similarly, Austin acknowledged using social media “probably 15 to 20 times daily ... say maybe twice an hour for the duration of the time I'm awake,” and Madison stated “I usually check it when I wake up in the morning, periodically throughout work just for the little mental breaks.”

Across usage levels, participants indicated that social media was used predominantly for short periods of time periodically, rather than a single concentrated time spent scrolling through the media. Social media was likened to a way to take a break or pass the time as captured by Evelyn who stated, “if you're taking a break from work or you get distracted or something, you just scroll through social media.” This resulted in social media largely being used in a habitual, unconscious manner.

Unconsciously (habitually). The next theme captures the unconscious and habitual nature of social media use. For example, Watson stated “it's habitual, where it's, unlock the phone, tap into Instagram.” Similarly, Lucas explained the constant background presence social media: “naturally I just have a laptop open or my phone in my hand. If I have my laptop open, I have Twitter just auto updating, scrolling through.” This behaviour was consistent with the habitual use motivation identified in prior sport management scholarship (e.g., Lewis et al., 2017). This behaviour was also consistent with the criticism of U&G Theory that it overstates the purposefulness of audience members (White, 1994), as well as existing findings that over half of media use is habitual (Wood, Quinn, & Kashy, 2002). Rather than being purposeful and goal directed as outlined in U&G Theory (E. Katz et al., 1973), participants' behaviours were captured

by Layla when she stated “it's honestly just a habit now. It's just ingrained. You pick up your phone, you open an app, you scroll.” Layla confirmed instances of scrolling social media and not processing the content and further expanded this idea by saying

I try really hard to be more conscious of it, but I definitely get caught up in that where I'm like, I was doing something or you'll see a little notification pop up and the next thing you know, it's been like been minutes and you're still scrolling on Instagram. I'm like, "Damn it. I was doing something productive, and it totally got sidetracked." There's definitely a bit of hold that it has, I think, whether we're trying to be conscious about it or not.

Distinctly. Participants used a myriad of social media platforms, including Facebook, Instagram, LinkedIn, Pinterest, Reddit, Snapchat, Twitter, Tik Tok, and WhatsApp. This was consistent with past literature finding sport consumers used various social media platforms (Billings et al., 2017). However, more than half of the participants had the majority of their social media time highly concentrated onto a single platform, wherein that platform was their dominant social media choice regardless of contextual characteristics (such as physical surroundings, social surroundings, temporal perspective, task definition, and antecedent states; Belk, 1975). For example, Ben preferred Twitter, stating “I'm always just going to Twitter”, whereas Mia said, “good mood, bad mood, Instagram”. If participants had a preferred social media platform, that would be their go to even if they acknowledged that another platform might be better suited to fill their needs. For example, Dixie said, “If I Google a question about like anything in general, the number one page I find comes up for answers right away is always Twitter and I always think to myself, ‘Man, I should get Twitter.’” However, despite understanding the value of Twitter as a source of information, Dixie still does not adopt the platform.

Effectively, platform preferences became ingrained in participants over time,

whereby participants did not want to adopt a new platform even if it would better fulfil their needs. However, for participants whose social media platforms were more balanced, it was clear that each platform was distinct. For example, Olivia said, “I like the idea of having separate platforms where I do all those separate things”, and Riley acknowledged that “everything has its own time and place.” Likewise, Eleanor was able to describe distinct usages of each platform conditional upon its content.

The use of different platforms was not driven by platform features or characteristics such as ephemeral content, but rather the content on each platform. For example, Dillion and Watson agreed with the notion that decisions were content driven rather than based on platform features or the delivery mechanisms, while Jaxton stated, “content would drive you to the [platforms], not how I can engage with them”. This distinct content was predominantly a consequence of the different followers on each account, for example Jaxton had “relatively distinct follower-y feed lists” resulting in his social media platforms being “very different newsfeeds. When I'm reading one of them, I'm getting very different information on each platform. There is some crossover but not a ton. That helps drive why I would spend time on one versus the other.” Avery echoed this sentiment, acknowledging different information on different platforms because of the content. Moreover, participants regardless of sport fandom level did not consistently view sport content across social media platforms. For example, when describing the proportion of sport-related content across platforms, Kylo stated,

Facebook, 2% sport, very, very little. Facebook is for families.
Instagram, negative percent. That's really just for looking at pictures,
quick hits. It's really Twitter and LinkedIn for sport, but two totally
different uses.

This was inconsistent with past literature stating sport fans used multiple platforms for sport such as Pinterest and Snapchat (Billings et al., 2017); instead, the interviews suggested that if these platforms were used, they were for personal usage, and sport content was limited primarily to Instagram, Twitter, and Reddit.

Universally. The final theme captured the universal nature of social media behaviour, specifically acknowledging that sport content was a portion of the content being viewed and interacted with and that social media accounts and platforms were used in consistent manners. For example, when discussing the unique nature of sport content, Layla stated “for me, [sport content is] in addition to everything – I think it's one part of all the stuff that I look at” and with respect to social media usage Watson said, “that goes beyond sports itself.” Overall, regardless of fandom level or favourite sport, participants consistently identified that sport content was just one aspect of their social media experience. As such, the motivations for using social media transcended the content type. This was captured in the overarching purpose behind social media usage: information gathering. With respect to information gathering, Dillion said “both in general and sport. I go on there for the sports business news, NFL news, all of that, but as well as political and current events.” Likewise, Lucas said, “it's more keeping up with news. News, in general, doesn't matter if it's sports news, general news.” Sally said, “I use social media for a lot and to stay informed on different things, whether it's what's going on in the world, or what's going on in sports, or what's going on in music.”

Moreover, the theme of universally also applied to the way in which social media was used consistently across content types. Dixie confirmed her social media behaviours

were consistent “for sports and for just people” when she explained how she might look up information on an athlete just as she would for an actress or new acquaintance.

Effectively, social media usage was consistent across content types, with sport-related content being a component of the social media experience. As a result, participants were drawn to more well-rounded, general accounts as explained by Austin:

I like accounts with varied content on similar topics. Sports accounts that maybe touch on music and media, and players as well as giving those updates, and interesting facts and stats, or something that's more of a well-rounded follow, instead of just posting the same formatted images with daily score updates.

Finally, a platform was opened to consume all new, relevant content on that platform, not to consume content from a specific account. Sally said, “I don't just go on Instagram like, ‘Oh let me search LeBron James’ page,’” but rather to capture many perspectives on one topic. This was captured by Lucas’ statement, “I'm not just reading one person's thing; I'm reading five people's things about this one thing, this one topic.” Jimmy further elaborated on this point, saying “I wouldn't necessarily go on somebody's profile on Instagram or Twitter, because once you've got that piece of information, you'll just move on from it.” Rather than consuming a single account’s content, social media was valuable to participants as it was able to synthesize and present different snippets of information on a single topic. This calls into question how generalizable to real-life experiences it is when research focuses on a specific account (e.g., Clavio & Kian, 2010).

Why Social Media Was Used

The second overarching theme that emerged when examining what consumers were doing with sport social media was related to the motivations driving consumption.

Frequently, prior sport management social media scholarship employing U&G Theory has focused on identifying motivations driving usage. The fact that this was one of two overarching themes when examining what consumers were doing with sport social media suggests that the previous application of U&G Theory might be too narrowly focused on motivation. There were four subthemes to why consumers used sport social media (110 total mentions): information gathering (48 mentions), entertainment (17 mentions), boredom (15 mentions), and connectivity (30 mentions). Despite further probing, the researcher was unable to identify or uncover additional themes that have been found in previously published sport management scholarship.

Information gathering. Information was the key motivation for using social media identified by all participants regardless of platform or content. This was captured by Evelyn when she stated that information gathering was “the main reason I would engage with sport on social media” and Avery who felt it was “probably the number one reason” to use social media. This was consistent with past sport management literature (Billings et al., 2017, 2018; Frederick et al., 2012; Gibbs et al., 2014; Lewis et al., 2017), which has continuously found information gathering a key motivation for social media consumption as captured in Filo et al.’s (2015) review article.

There were two reasons behind the dominance of social media in the information gathering arena: (i) speed and convenience and (ii) commentary. First, the speed and convenience of available information was a key reason that social media was seen as an ideal source of information. This was captured by Dixie, who stated, “If you want news, you're going to get it on your social media quicker than anywhere else.” Similarly, Kylo

said, “[social media platforms] respond better to emerging news and emerging trends. If something big happens in the news world or in the sports world, I’m going to go to Twitter.” Second, social media was able to provide a distinct form of information, commentary (i.e., viewing other users’ opinions), due to its unique nature of allowing users to create content. Lincoln outlined how he “[liked] to see what everyone’s saying about the game”, while Noah expressed his “love to lurk in the post-game threads, see what people thought of the game, see if it matches [his] own opinion”. In general, as stated by Lucas and Jimmy, respectively, “you look for a reaction on social media” and “look at their commentary and what other people [are] saying.” This aligned with Ruibley and Harding’s (2011) finding that fans look for advice or opinions and general social media scholarship that found people watch or surveil what other people do or say (Whiting & Williams, 2013).

Though information gathering was consistently a key motivation across platforms and content, there are two noteworthy points. First, the motivation of information gathering is not unique to sport-related content, as it is found in findings of past research on general social media motivation (e.g., Whiting & Williams, 2013). This was acknowledged by interview participants. Ben indicated that his motivation to use social media was “to be in the know about either friends or sports or whatever,” and Riley said that her motivation was “wanting to know what, for instance, friends and family are up to and athletes that I’m interested in are up to.” Second, although information gathering may be more or less relevant for specific platforms based on user preferences, it was acknowledged as a motivation for all platforms. Madison identified that her motivation

could be summarized across platforms as information gathering, with the information being different on platforms when she said how “it’s different forms of information but information at a high level”. As such, for more personally oriented platforms (e.g., only following friends and family), staying up to date with connections was important, but the platform was perceived as less information-oriented than a platform with more impersonal connections (e.g., following news outlets and sport teams).

Entertainment. The next motivation for using social media was entertainment, which was identified by all participants regardless of platform or context. For example, Austin said “a lot of the reason why I follow sports on Instagram is because it's very entertaining to me, and it's something that I enjoy consuming content of.” Likewise, Layla said, “there's definitely a sense of that entertainment value, like watching highlights and clips of certain sports and things like that, it's fun. It's enjoyable content to consume.” This motivation was consistent with past sport management (Billings et al., 2018; Frederick et al., 2012; Lewis et al., 2017; Witkemper et al., 2012) and general scholarship (e.g., Whiting & Williams, 2013). Entertainment was more or less relevant for specific platforms depending on the individual and the content they followed. For example, Noah states “entertainment, I would say is more Reddit than Twitter”. This was consistent with past literature identifying differing strengths of motivations depending on the platform (e.g., Billings et al., 2018; Gibbs et al., 2014).

When discussing entertainment, it was often intertwined with boredom. For example, Lucas said, “entertainment, yes, I associate that more with Instagram just because it's more of a killing time portion of it and seeing things that I generally would

like to see.” Similarly, Madison said, “the entertainment of what I’m just scrolling out of boredom.” The relationship was summarized by Layla, who found that “the boredom habit would be why I would end up there, whereas the entertainment is what I get once I’m there and seeing the stuff.” Thus, though past sport management (Billings et al., 2018; Lewis et al., 2017) and general scholarship (e.g., Whiting & Williams, 2013) have identified boredom, often captured under “passing time”, and entertainment motivations as distinct, they are interrelated to the consumer. Consequently, the decision to separate these motivations may reflect the input of the researcher more than that of the participant.

Boredom. Boredom was a frequently cited motivation for using social media for both general and sport content. When describing motivation for using social media, Lucas said, “I’m bored, doing nothing and I start opening the app and I start scrolling through it” and Olivia said, “it’s honestly just boredom that I open my social media”. This was echoed by Ben, Austin, Madison, and Riley who all cited boredom as a motivating factor, with Madison saying, “it’s just scrolling through for boredom like I’m sure a lot of people do nowadays too”. Similarly, Kylo said, “It’s just boredom. That’s really the core of it. Some people might say fear of missing out, but honestly, I think it’s just plain old boredom.” This motivation is consistent with past literature as boredom is captured in both sport management (Billings et al., 2018; Lewis et al., 2017) and general scholarship (e.g., Whiting & Williams, 2013).

Connectivity. Finally, connectivity, also known as interactivity in existing scholarship, was a popular motivation. Sally stated that social media “keeps me connected and that’s why I’m on it a lot. Just to see what’s going on with everyone.” This

notion of connectivity is found in existing sport management (Billings et al., 2017; Clavio & Kian, 2010; Frederick et al., 2012; Gibbs et al., 2014; Ruihley & Hardin, 2011) and general social media scholarship (e.g., Whiting & Williams, 2013) often under the guise of interactivity. However, a distinction was made between interactivity and connectivity based on the responses of the interview participants.

Rather than interacting with the general social media audience, interactions were limited to friends and family members, with participants frequently only sharing and interacting with other users in a private chat function. Noah stated that if he did not know the person, it felt weird to interact with them. Watson said, “I’m not one to try and tag or interact with folks who I don’t really know or the broader community.” Some participants went as far as to say that interactivity did not resonate as a motive except for leveraging the platforms to privately message friends or families, such as Madison who said,

I’m more a passive user of social media – [interactivity] doesn’t really resonate, other than when I want to purposely contact someone, a friend or any other, through WhatsApp or Messenger. Interacting with random people online who have the same interest group doesn’t really happen for me.

For many participants, social media platforms were reduced to their private messaging service, such as many users only using Facebook to access Facebook Messenger. To participants, social media reflected the new reality of communication. This was summarized by Mia, who said, “to keep in touch with people, instead of a phone call, you can just hit a like or just comment on their Instagram story and that’s you adding in your two cents for the day.”

Further Probing. To ensure an in-depth and comprehensive understanding of what consumers were doing with their sport social media, probing and follow-up

questions were used to identify additional motivations. However, this resulted in participants consistently returning to the main motivations of information seeking, entertainment, boredom, and connectivity, even denouncing other potential motivations such as camaraderie and fandom.

Prior sport management literature has identified camaraderie as a motivation for sport social media usage (e.g., Billings et al., 2018; Frederick et al., 2012; Lewis et al., 2017). With respect to camaraderie, participants such as Kylo stated that “there's no sense of camaraderie on social media.” Olivia said that social media “doesn't necessarily make me feel part of a group. I don't necessarily resonate with that because it's just like a group of fans, it's too big of a group.” Similarly, Lincoln said, “I don't have to be a part of a group in order to feel I'm part of a fan base” and Sally said, “I don't really need to feel like I'm a part of anything bigger.” The general consensus was that social media was too big to truly feel a sense of camaraderie, with any sense of camaraderie limited to connections with friends. Austin captured this by saying, “not because it's social media, more so because of those people.” This was aptly explained by Noah who said, “if I'm looking for camaraderie, I'd rather do it in person. I find social media so faceless that you actually don't feel any camaraderie.”

Fandom was also a motivation that participants did not resonate with. Lucas said, “that to me is more the in-person expression as opposed to through a digital media.” Likewise, Sally said, “I am a huge fan of the Eagles and the Sixers, but I do not tweet or post a lot at all about my opinion,” and Dillion said, “my love of the Eagles isn't driving me to social media to interact with all of their content” and Jaxton said, “I occasionally

will engage with material that other people post and leave a few comments but it's not driving a lot of my behavior.” Thus, although participants identified as fans and having feelings of fandom, it did not lead to social media activity. This was supported by Watson, who said, “I definitely resonate with the feeling, but I don't publish the feeling or rarely will I publish the feeling on Instagram publicly.”

This is in conflict with prior sport management social media scholarship that identified fandom as a motivation for sport social media consumption (e.g., Larkin & Fink, 2016; Mumcu & Lough, 2017; Wakefield, 2016; Witkemper et al., 2012). This conflict could be in part due to the passive nature of social media users, often using social media out of habit and boredom rather than purposefully, due to this study's inclusion of a range of fandom levels, or reflecting certain motivations being more dependent on the researchers' than the subjects' input. Regardless, these findings have important theoretical and managerial implications discussed in the subsequent sections.

Theoretical Implications

The current research sought to critically examine the existing application of U&G Theory by returning to the original question posed, namely, “what do people do with media?”. In so doing, two overarching themes emerged: how people were using sport social media and why people were using sport social media. Consequently, there are two important theoretical implications discussed below: (i) a core set of motivations driving social media usage and (ii) an augmentation to U&G Theory to help it overcome existing criticisms and limitations.

First, this research contributes to the existing scholarship on motivations of social media usage in sport management by identifying a core set of motivations. Results indicated that at the highest level, social media usage was driven by information gathering, boredom, entertainment, and connectivity. Consistent with criticisms of U&G Theory, sport management scholarship features studies that are too compartmentalized and fail to synthesize results. Specifically, existing scholarship has resulted in separate typologies of motivations for social media usage across studies, making it difficult to synthesize results and derive a clear understanding of the factors driving social media use. Therefore, it is suggested that the core motivations of information gathering, entertainment, boredom, and connectivity be accepted across operationalizations of social media to allow scholarship to evolve beyond motivation identification. Moreover, the motivations can depend more on the researchers' input than the subjects. For example, additional motives, such as camaraderie and fandom, could either be captured by existing categories or were not present. This suggests that additional motivations may be more reflective of the previous researchers' input than the subjects. Effectively, the lack of a clear set of motivations for social media use may limit the evolution of scholarship by forcing scholars to continually identifying distinct sets of motivations under a myriad of conditions rather than evolving to other research questions, while leaving future scholars at a loss as to what motivations should be considered. Therefore, a clear set of motivations driving social media usage was identified to addresses criticisms of U&G Theory and help future scholars.

Second, the range of criticisms and limitations to the motivation-centric application of U&G Theory among existing scholarship resulted in this research returning to the original question posed which helped to develop U&G Theory. Doing so identified that there are two interrelated components of sport social media selection and continued usage: how and why people are using sport social media. This challenges the current motivation-centric approach to U&G Theory, specifically that it is a theoretical framework to guide and justify the identification of motivations of media usage. Rather, results indicated that the underlying forces guiding and directing media usage evolved over time for consumers as social media use became habitual in some situations, such as periodically checking it throughout the day out of habit. Thus, though for some of their social media usage participants acknowledged that they purposefully sought out a social media platform to fulfil a specific need, other times they found themselves opening social media unconsciously or not closing out of social media despite consciously telling themselves to. Moreover, participants would continue to use a particular social media out of preference or habit, despite knowing that another social media available to them would better serve their needs.

Consequently, the underlying assumptions that the audience members are purposeful in media selection, selecting the ideal medium based on their needs, is challenged. Instead, media selection may be less purposeful and more habitual and automatic especially as preferences for media develop overtime. This unearths an interplay between how and why consumers use social media. For example, if consumers are using social media in a habitual, non-purposeful way, they might be less driven by

motivations, instead defaulting to their learnt behaviours with motivation mainly sustaining usage (e.g., stay on the platform because it is entertaining after opening it out of habit). Conversely, if consumers are using social media in a purposeful way, such as wanting to look up news or other information, their motivations become increasingly important in driving their decision-making process. Consequently, this interplay between how and why and the acknowledgement of a more habitual, less purposeful media use, calls into question the appropriateness or completeness of U&G Theory.

Therefore, an augmentation to U&G Theory is proposed that would capture the interplay between why and how consumers use social media while acknowledging and accounting for the fact that social media consumption likely ranges from habitual and unconscious to completely deliberate and purposeful. This is captured in Figure 1 which illustrates the role of both how and why social media is being used with respect to media selection and continued usage. Namely, U&G Theory has been amended to include a “media selection process” box which captures the “why” or motivation component prior to the “how” or usage component driving media selection.

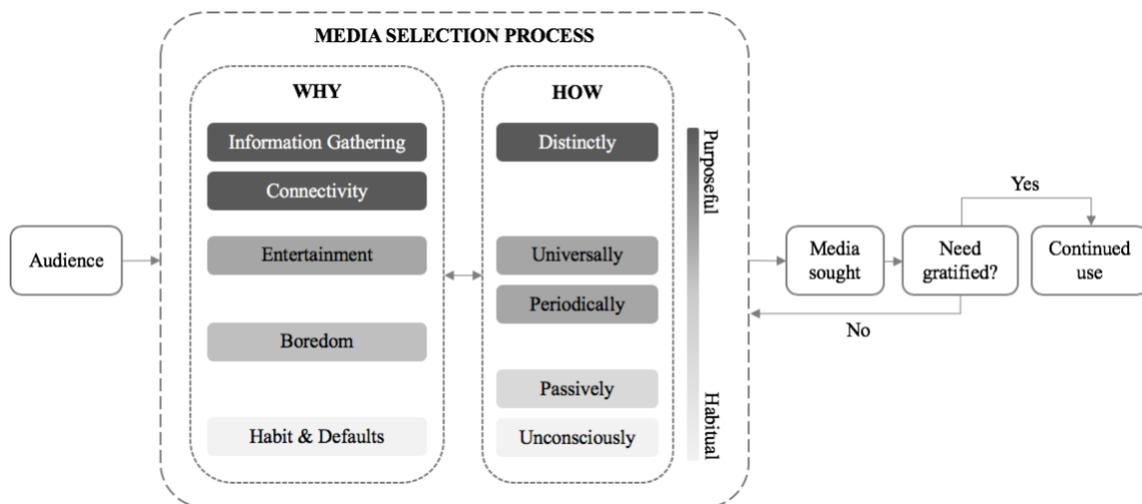


Figure 1. Amended U&G Theory

In this amended U&G Theory, a media selection process component has been added and includes two elements: how and why consumers use social media. This addition captures the aforementioned notion that there is more to media selection than solely motivation as previously outlined by U&G Theory. Rather, the media selection process involves an interplay between why and how consumers use the media, captured by the dual-directional arrow between these two elements. The results indicated that these two elements were interrelated in the consumer's mind. For example, the motivation of boredom was often related to the how subtheme periodically, with respondents indicating that they used social media periodically throughout the day, in part to relieve boredom when it struck. Despite the interrelated nature of the why and how elements, they were ordered purposefully with the why element appearing first to reflect motivation's role in influencing and informing behaviour. Since the why element captures the motivational aspects of what consumers do with social media, it informs the how element which captures the use case or is more related to behaviour. Overall, the augmented U&G

Theory includes a media selection process component which contains the interrelated elements of why and how consumers use social media to reflect the two themes of what people do with social media.

There is a second noteworthy addition to the augmented U&G Theory, namely, its ability to capture that how consumers use social media ranges from purposeful (represented at the top in the darkest grey) to habitual or automatic (represented at the bottom in the lightest grey). The five themes of how social media is used are represented along this continuum from the most purposeful usage, namely when consumers use social media distinctly, through to the least purposeful usage, specifically when social media is used passively or unconsciously. The greyscale gradient is used to represent the range of these usage themes. For example, periodically might fall towards the middle of the purposefulness scale as a consumer could use social media out of habit implying a degree of unconscious, automatic behaviour, yet have a degree of purposefulness as they are actively seeking a break or reprieve from work. Effectively, adding this “how” element to U&G Theory acknowledges that at times the selection of media could be conditional upon a deliberate thought process or at times done habitually, such as by a learned behaviour or based on preferences and biases for a certain platform. This augmentation would allow for U&G Theory to accurately reflect that not all media selection was done purposefully by consumers. It would also reflect that consumers’ preferences for specific platforms had become ingrained, and though they acknowledged that a new or different platform may better meet their needs, they did not want to divert from their choice platform. This augmentation reflects the findings of this study that habitual media use can

occur while also addressing the criticism that U&G Theory overstates the purposefulness of consumers (White, 1994).

To further illustrate the interconnected nature of the why and how elements of the media selection process, Figure 1 captures the core motivations, illustrating them along the continuum of purposefulness using the same gradient greyscale. The motivations that were often tied to the most purposeful, goal-directed behaviour, such as information seeking and connectivity, are presented at the top in the darkest grey. As motivations required less purposefulness, such as boredom, they moved down the gradient and are represented in a lighter grey. Finally, at the bottom, the element of “habits and defaults” has been included to represent that when consumers are using social media in the most habitual, automatic way, they rely more on their learned habits and defaults (e.g., using their favourite social media platform) than distinct motivations. The usage of the greyscale gradient for both how and why individuals use social media captures the connections between these two themes, underscoring the importance of returning to the original question guiding U&G Theory as well as the research question of this paper, in lieu of solely using U&G Theory to justify motivation research. Rather, results indicate that social media usage changes over time to become more habitual and learnt, with consumers developing habits and preferences that guide their less purposeful behaviour.

Managerial Implications

The results have important managerial implications for sport and social media organizations. First, the findings reiterated that social media should be prioritized as the medium to release timely information. Consumers universally acknowledged that social

media was an information source, for many their only source of information, in part due to its speed and convenience. Thus, sport organizations must strive to release information quickly through social media. This challenges previous standards of communication, such as formal press releases made on company websites, rather favouring short (i.e., less than 280 characters), timely information on social media. Marketing and communication departments must continue to evolve to reflect this reality and adapt to ensure the timely release of social media content.

Next, the consistent core motivations of information gathering, entertainment, and boredom suggest that though content should be informative, users are not expecting it to remain exclusively about sport news, but rather accounts can be more well-rounded. It was evident that the core motives were often interrelated for the consumer, such as entertainment and boredom being two sides of the same coin (i.e., boredom drives users to the platform, while entertainment keeps them there). Since consumers are looking for news as well as entertainment, content should be more than informative, having a component of entertainment resulting in sport organizations having personalities online.

Furthermore, sport organizations should be aware that their content is appearing adjacent to that of other accounts from a myriad of industries and personal connections. Social media users expect to and want to see a variety of content as they scroll. Thus, organizations should not “over-post”, as consumers do not want their feed to be saturated with one account’s content. Additionally, content should stand out (e.g., through demonstrating a sense of humor or brand personality), especially since consumers often passively scroll through content absentmindedly.

Finally, this research also has an important implication for social media platforms and sport organizations developing mobile applications. The consistent core motivations of information gathering, entertainment, boredom, and connectivity transcended platforms and drive social media usage. As such, platforms should be designed in such a way to feature recent content first so that it is easy to find quick updates. Moreover, findings indicated that though connectivity was an important motive, it was limited to that of private communications between existing contacts. As such, social media platforms should feature an easy way to directly and privately share content and communicate with connections. Facebook's well-developed and widely embraced Messenger platform in large part has kept users on Facebook. Other platforms should ensure they have well designed private messaging services so that users can share content within the platform rather than copying content and sharing it through a different communication tool. Doing so will help retain users even if content on the platform is not a draw. Moreover, for sport organizations looking to develop and leverage mobile applications (apps), apps should be developed to integrate existing social media platforms and facilitate content sharing.

Limitations and Future Directions

Although valuable theoretical and managerial implications can be drawn, there are limitations to this research. First, this research featured a qualitative design which allowed for an in-depth examination of what consumers are doing with sport social media, challenging the motivational-focused approach of existing scholarship guided by U&G Theory. Particular attention was paid to gathering a diverse sample, including

recruiting participants of differing backgrounds, ethnicities, ages, and favourite sports as well as with a variety of fandom and social media usage levels. However, future research should seek to confirm these findings to ensure results are not reflective of an idiosyncratic sample.

This research proposed an augmentation to U&G Theory to reflect that media usage ranges from purposeful to habitual which can affect the motivation guiding media selection and continued use. Future research should confirm this augmentation as well as identify when consumers opt for more habitual versus more purposeful media consumption. These interviews suggested that media usage was habitual and periodic throughout the day, but purposeful in the evenings when consumers sought to use social media to complement their evening media consumption. Furthermore, social media preferences were developed overtime, leading to media selection and usage occurring out of habit, rather than as an evaluation of which social media would serve the user best. Future scholarship should seek to confirm these patterns, such as how motivation for media usage may evolve over time, as well as consider other factors influencing consumers' media selection and continued use.

Moreover, existing scholarship has found that habitual and purposeful approaches to media consumption have different behavioural outcomes (e.g., Wood et al., 2002). Future scholarship could explore different behavioural outcomes of social media use, understanding its impact on important sport consumption metrics such as purchases and repeat consumption. Due to the importance of advertising and advertising revenue in sport media, it would also be prudent to consider the impact of the media selection

process (i.e., habitual vs purposeful) on advertising metrics such as ad and brand memory.

Finally, this research represents a starting point for a less motivation-centric approach to U&G Theory research, instead returning to the original question of what people are doing with sport social media. It sought to critically examine the current use of U&G Theory and highlight its criticisms. However, additional scholarship is necessary to continue to address the criticisms and limitations as well as continue to evaluate the use and appropriateness of U&G Theory.

Conclusion

In conclusion, this research sought to extend existing scholarship considering social media usage by examining what people do with sport social media. Results had important theoretical insights including acknowledging the limitations of U&G Theory and its corresponding body of literature as well as proposing an augmentation to it to capture the range of purposefulness consumers can have towards social media usage. Additionally, the findings identified a list of motivations driving social media usage that future scholars can draw upon. Managerially, this research provided insight to organizations on developing social media strategies such as the importance of leveraging social media to release information in a timely manner and maintaining a balance between informational and entertaining content.

CHAPTER 3

PREDICTING SPORT CONSUMERS' DIGITAL BEHAVIOURS: UNDERSTANDING ELEMENTS OF SOCIAL MEDIA ENGAGEMENT

Social media has become an omnipresent element of our lives. What began as a collection of Web 2.0 based applications designed to facilitate the exchange of user generated content (Kaplan & Haenlein, 2010) has grown nearly ubiquitous, with 77% of Americans holding at least one social media account (Statista, 2018) and averaging 1.7 hours of social media use per day (Statista, 2016). In turn, sport entities have invested significant resources into developing digital presences that align with existing marketing strategies to effectively meet consumers' needs (Filo et al., 2015). However, organizations still seek insights necessary to optimize their usage of social media. For example, when asked, marketers indicate they are interested in understanding the best ways to engage with their audience, improve organic reach, measure and analyze social media activities, and identify the most effective social media tactics (Stelzner, 2019). This has resulted in an emergence of sport social media scholarship.

Existing sport management scholarship has considered a myriad of topics related to social media, including strategic, operational, and user-focused research (Filo et al., 2015). However, limited research has examined social media usage holistically, namely, considered the sport organization, context, and user simultaneously. Moreover, limited research has embraced an analytical approach to understanding and predicting digital behaviour (Watanabe, Yan, & Soebbing, 2015). Research that has considered an

analytical approach to modeling digital behaviour has often focused on Twitter, excluding other platforms, focused on the behaviour of following, excluding other important digital behaviours, and relied heavily on ordinary or generalized least squares regression, which may not adequately capture the clustered and complex nature of social media engagement as well as other analytic techniques. Consequently, this research employs a machine learning technique to examine determinants of post engagement (i.e., liking, commenting on, and sharing) on two social media platforms. In doing so, this research identifies objective determinants of social media behaviour, providing the sport management community with insight into sport consumers' digital behaviours that can be leveraged to improve social media strategies and experiences.

The purpose of this research is twofold: (i) to expand existing understanding of determinants of social media behaviour, while (ii) expanding the current conceptualization of the SX Framework. This research will expand on existing scholarship related to determinants of social media behaviour in three primary ways. First, this research considers determinants of engagement, rather than followership. This provides a greater understanding of consumer behaviour and shifts to a 'using' perspective (Funk, 2017). Although followership is important, engagement (i.e., interacting with a post such as liking, commenting, or reposting) captures consumers' using behaviours and is an important indication of strategy effectiveness. Second, this research considers the social media platforms Facebook and Twitter simultaneously to allow for a platform comparison of behavioural determinants. Finally, employing a machine learning technique not only responds to calls for different tools and techniques

in both sport consumer behaviour literature (Funk, 2017) and analytical social media research (Jensen, Ervin, & Dittmore, 2014; Watanabe et al., 2015; Watanabe, Yan, & Soebbing, 2016; Watanabe, Yan, Soebbing, & Pegoraro, 2017), but also captures the complex nature of social media data (Kennedy, Kunkel, & Funk, 2020; Moro, Rita, & Vala, 2016). With respect to the SX framework, the results of this research outline the complexities of sport user experiences, namely the influence of additional organizations in the facilitation of sport experiences and the layered nature of contextual characteristics, due to the introduction of a digital element. These additions result in the development of the SX framework v2.0 which acknowledges the dynamic nature of the sport consumption context while also capturing the interactions of the digital, physical, and external parties within the sport consumption context. In turn, this provides a more accurate and in-depth understanding of determinants of social media using behaviour contributing to our theoretical understanding of sport consumer experiences, specifically augmenting the existing conceptualization of the SX framework. Collectively these two research purposes will be considered by addressing the following research question:

How do elements of the digital sport consumption context impact

social media usage behaviours?

Literature Review

Sport consumer experiences are complex, dynamic processes that stimulate physical and emotional responses in consumers; these processes then guide their experience evaluations and behaviours (Du, Jordan, & Funk, 2015). These experiences can extend beyond a singular episode to an entire journey and may include elements

outside of the organization's control (Du, Kennedy, James, & Funk, 2020). Moreover, the emergence of new technologies allows sport consumption to occur continuously in a variety of physical locations. This introduces a wave of complexities into the sport experience, resulting in a variety of contextual characteristics (e.g., date, location, etc.) that distinguish different contexts or scenarios interacting and affecting fans. To capture the nature of the sport experience and the factors that interact to facilitate it, the SX framework was developed (Funk, 2017).

SX Framework

The SX framework holistically captures the interrelated elements of the user experience (Funk, 2017). Thus, the framework guides consumer behaviour research seeking to optimize accessibility, usability, and pleasure of sport experiences. The SX framework describes three prominent elements reflecting three research knowledge domains in sport management: user, context, and organization. The user reflects the consumer's unique psychological and cognitive nature that affects their usage and evaluation of their experience. The context captures the man-made physical and digital environments facilitating the experience. Finally, the organization reflects the hosting body such as a sport brand or team. Therefore, to optimize the design and delivery of experiences, it is necessary to consider a range of factors, such as environmental settings, people, and the context, as well as their interactions (Pullman & Gross, 2004).

Traditionally, sport consumer behaviour research has fluctuated between emphasizing the user and the context, often failing to capture their nuances in a single investigation (Funk, 2017). For example, scholarship investigating antecedents of event

satisfaction has primarily focused on service quality or the context, often omitting other potential antecedents, such as user characteristics (Du et al., 2020). Advancements in technology coupled with the expanding scope of the sport industry require organizations to understand “how, when and where sport interactions are co-created and why some sport users respond differently in order to improve production” (Funk, 2017, p. 154). Moreover, scholarship should investigate the influence of design elements to enhance consumer experiences (Parasuraman, Berry, & Zeithaml, 1991). This opens an opportunity for sport management researchers to investigate the elements of interactions, including temporal, subjective, and contextual characteristics, and consider the impact of technology on sport experiences (Funk, 2017).

In its current conceptualization, the SX framework is relatively simplistic, describing three static, interrelated elements, with an emphasis on the man-made physical components of experiences. For example, the explanation provided by Funk (2017) describes one sport organization organizing and facilitating a singular event for a specific sport user with specific physical design elements, such as water stations at a marathon for a runner. This is exemplified in sport management scholarship on event satisfaction which often focuses on service quality elements as antecedents, omitting elements affecting the experience beyond the event weekend (Du et al., 2020).

However, the digital element of the sport experience introduces additional organizations and contextual characteristics beyond those outlined in the SX framework. In other words, technological innovation has altered the sport consumption experience, such as by expanding the boundaries of sport consumer experiences (Pizzo, Baker, Jones,

& Funk, 2020). For example, each social media platform is controlled by an outside organization and features a hodgepodge of content from a variety of users and organizations all of which are beyond the scope of the host sport organization. Moreover, the digital element adds layers to the contextual factor; for example, there are physical elements to a context (e.g., location in which the sport consumer exists) as well digital elements (e.g., platform being used, device being used to access it, etc.). While physical contexts may be consistent across many sport users (e.g., all sport fans in a stadium see the same halftime show at the same time), no two digital contexts will be consistent across participants. Digital contexts vary due to the additional externalities that come into play; for example, consumers follow different accounts on different social media platforms which are constantly providing new content and altering the context for the user. Collectively, this suggests that the digital component, driven by technological innovations, has a disrupting effect on the existing conceptualization of sport experiences (Pizzo et al., 2020).

Social media is one example of a technology that has changed sport experiences. For example, social media has shifted the sport communication paradigm, in part due to its ability to facilitate two-way communication between fans and its ability to provide unprecedented access to live sport content and entities (Hambrick et al., 2010). Although sport was once a more singular episode, for example attending a game, social media has facilitated and encouraged fans to consume and engage with live content continually throughout their everyday life. This has introduced a wave of design-relevant factors that may influence the experience, ranging from the timing of content distribution to network

externalities, and in turn how fans use sport experiences. Sport ‘using’ research focuses on how consumers feel (and think) throughout their sport experience and how they respond to specific design features (Funk, 2017). Thus, it derives an understanding of what consumers are doing and feeling, rather than what they are saying on a survey, in turn providing valuable insight with respect to sport experience design.

Social Media Scholarship

Social media has become an important channel through which brands engage and interact with consumers. Social media posts are an integral component of marketing and communication strategies (Edosomwan, Prakasan, Kouame, Watson, & Seymour, 2011). The power and popularity of social media demand that sport entities effectively allocate resources to engage with their consumers (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011), facilitating interactive dialogues between consumers and brands. Despite the value of eliciting engagement (i.e., liking, sharing, and commenting on posts), many organizations lack knowledge of effective social media strategies (Dolan, Conduit, Fahy, & Goodman, 2017) resulting in evaluating fan engagement being a concern among sport practitioners (Kunkel & Biscaia, 2020). Also, despite garnering increased attention in sport management scholarship more recently, analytical modeling of social media engagement has been limited (Watanabe et al., 2016).

Since social media is an important channel through which fans engage with sport entities, it has received attention in recent sport management scholarship. However, limited attention has been paid to understanding objective determinants of engagement. Rather, sport management social media research has predominantly embraced subjective

approaches such as survey methods and content analyses (e.g., Clavio & Kian, 2010; Clavio & Walsh, 2014; Witkemper et al., 2012), limiting the insight derived with respect to design elements of sport experiences. For example, studies reliant on content analyses can only provide a description of what has been posted, failing to explain why posting occurred or the determinants of successful posts, whereas survey methods are over reliant on self-reported measures, failing to capture actual consumer behaviour. In turn, the objective factors that impact online consumption behaviour remain not well understood and have received limited attention (Watanabe et al., 2016). Despite the importance of understanding determinants, including factors such as timing, location, extent, and effects of social media (Rowe, 2014), little is known about the objective factors influencing consumers' using behaviour (Burk, Grimmer, & Pawlowski, 2016). As such, recent sport management scholarship has begun to identify determinants of social media behaviour.

Determinants of social media use. Unlike prior sport management scholarship, which has focused on driving psychological forces (e.g., wants and needs), this research focuses on the objective factors that influence social media experiences. Recent sport management research has begun to identify determinants of social media usage through analytical modeling (Burk et al., 2016; Feddersen, Humphreys, & Soebbing, 2017; Jensen et al., 2014; Pérez, 2013; Su, Baker, Doyle, & Kunkel, 2020; Watanabe et al., 2015, 2016, 2017). Relevant articles are summarized in Table 3, which identifies the social media platform and context (i.e., sport and dependent variable) under consideration, the methodology employed, the main results (i.e., (in)significant determinants), and suggested future directions, and are discussed subsequently.

Table 3.

Sport Management Scholarship Considering Determinants of Social Media Usage

Author(s)	Platform	Sport	Methodology	Results	Future Directions
Burk et al. (2016)	Public relations media (including Facebook and Twitter)	Sport: professional soccer club (Hamburger Sport-Verein) DVs: <ul style="list-style-type: none"> • Frequency of Facebook (Twitter) use 	Ordered probit model	Relevant (e.g., social media) takeaways: <ul style="list-style-type: none"> • Facebook and Twitter less important than other forms of media with respect to gathering information on the team • Younger consumers (16-29) favour Facebook and Twitter compared to older users, with use decreasing with age • Women favour Facebook, while men favour Twitter • Education and income inversely related to Facebook usage • Twitter usage inversely related to distance from the team 	<ul style="list-style-type: none"> • Confirmation across other settings • Confirmation of findings with fans (as opposed to club members)
Jensen et al. (2014)	Twitter	Sport: College athletics (football head coaches) DVs: <ul style="list-style-type: none"> • Number of followers 	Ordinary least squares regression	R ² value .597 Influential variables: <ul style="list-style-type: none"> • Number of tweets (+) • Average program attendance (+) • Institution's enrollment (-) • Twitter tenure (+) • Program wins (+) • Stadium size (+) Non-influential variables <ul style="list-style-type: none"> • BCS automatic qualifying program • Job change since Twitter account formation • Program budget 	<ul style="list-style-type: none"> • Consider a longitudinal approach • Consider other statistical techniques • Consider the potential mediating effect of team identification • Explore the coach-fan interaction on social media platforms
Pérez (2013)	Twitter	Sport: professional soccer (Liga BBVA) DVs: <ul style="list-style-type: none"> • Number of new followers 	Panel data analysis	Within R ² value .628 Influential variables: <ul style="list-style-type: none"> • Team ranking (-) • Success in previous Spanish King's Cup match • Success in previous UEFA Europa League match • Appearance in final match of Spanish King's Cup • Appearance in final match of UEFA Europa League • Number of local fans Non-influential variables: <ul style="list-style-type: none"> • Success in previous match • Stock of Twitter followers 	N/A

Table 3. (continued)

Author(s)	Platform	Sport	Methodology	Results	Future Directions
Su et al. (2020)	Twitter and Instagram	NFL Draft DVs: • Increase in followers	Linear regression and follow-up parametric analyses	R ₂ values: .77 (Twitter) and .85 (Instagram) Influential variables: • Early round selection • Followers of drafting team • Initial number of followers • Verified account status (Instagram only)	<ul style="list-style-type: none"> • Consider additional athletes / accounts • Consider additional variables (e.g., athlete's playing position, sponsorship portfolio, group affiliations, etc.) • Consider longitudinal approach
Watanabe et al. (2015)	Twitter	Sport: MLB teams DV: • Change in number of followers in 24-hr period	Generalized least squares regression	Influential Variables: <ul style="list-style-type: none"> • Number of tweets in past 24-hr period (+) • Total number of team followers previous day (-) • Playoff participation (+) • 4 or more game losing streak (-) • League events (+): trade deadline, first day of free agency • Weekday (+; reference Sun) • Month (+ Feb, Mar, Apr; - Nov, Dec; reference Jan) • National televised games (+) • Small market teams (+) Non-influential variables: <ul style="list-style-type: none"> • Number of favourites • Days on Twitter • Day to day standing • Division movement • League events: all-star game, roster expansion, winter meetings, federal holidays 	<ul style="list-style-type: none"> • Interpret social media data from broader and more comprehensive approaches • Further differentiate how fans follow sport entities • Consider dependent variables beyond followership to more holistically capture social media behaviour

Table 3. (continued)

Author(s)	Platform	Sport	Methodology	Results	Future Directions
Watanabe et al. (2016)	Twitter	Sport: MLB teams DVs: <ul style="list-style-type: none"> • Number of followers • Change in followers 	Generalized least squares regression	R ₂ value: .30 & .13 Influential variables: <ul style="list-style-type: none"> • Favourites (+) • Total followers (+) • Win percentage (+) • Month (heightened interested from early months leading into the middle of baseball season) Non-influential variables: <ul style="list-style-type: none"> • Number of tweets • Days on Twitter • Host city population • Team age (& team age squared) 	<ul style="list-style-type: none"> • Replication across other social media platforms and Web 2.0 sites • Improve precision of results, potentially by including additional controls (e.g., total number of users on the platform) • Further exploration of analytical frameworks
Watanabe et al. (2017)	Twitter	Sport: MLB players DVs: <ul style="list-style-type: none"> • Number of followers 	Generalized least squares regression	R ₂ values: .357-.359 Influential variables: <ul style="list-style-type: none"> • Experience (+) (& experience squared; -) • Total number of all-star appearances (+) • Number of playoff appearances (-) • Race: Hispanic (-) • Team followers (+) • Position: catcher (-) Non-influential variables: <ul style="list-style-type: none"> • Age (& age squared) • Win percentage • Race: African American, Asian • Race percentage • Host city's population & per capita income • Player productivity • Year 	<ul style="list-style-type: none"> • Use advanced analytics to try to better understand behaviour and user influence in the online marketplace • Consider omitted variable interpretation • Employ advanced data collection methods to capture nuanced participation between players and fans • Consider analytical methods, such as structural network analysis, to understand consumer behaviour on platforms

Existing research (summarized in Table 3) has begun to explore determinants of social media behaviour. The behaviour that is considered most frequently is followership (i.e., the number of followers an account has). For example, studies have examined factors associated with the number of followers (Jensen et al., 2014; Watanabe et al., 2016, 2017), change in the number of followers (Watanabe et al., 2015, 2016), and number of new followers (Pérez, 2013). The most consistent significant determinants of followership across studies include team performance, post timing, team/player characteristics, and past post behaviour. For example, Pérez (2013) found team performance affected the number of new followers and Jensen et al. (2014) found that the number of tweets and program wins affected the number of followers. Watanabe et al. (2015) found the number of tweets in the past 24 hours, team performance, and early months of the year positively impacted the change in the number of followers in a 24 hour period. Similarly, Watanabe et al. (2016) found that the number of followers and the change in the number of followers for MLB teams were significantly and positively influenced by the total number of followers, past win percentage, and number of favourites, as well as heightened followership during early months leading to the middle of baseball season. A review of Table 3 indicates three major limitations of existing research: (i) a narrow platform focus (column 2), (ii) a narrow dependent variable focus (column 3), and (iii) limited methodological variety (column 4).

Limitations. As observed in Table 3, these studies often focus on only one platform (with the exception of Burk et al., 2015 and Su et al., 2020), specifically Twitter. This limits the generalizability of results and fails to consider the variation that

might exist in behaviour across platforms. Existing sport management scholarship has found differences between social media platforms; such as differing motivational forces affecting usage (Billings et al., 2018) and differing reasons and times for using different platforms (Gibbs, O'Reilly, & Brunette, 2014). This suggests that determinants may vary between platforms, requiring research to consider platforms other than Twitter. There are also calls for future research to consider other social media platforms and Web 2.0 sites, as these sites differ with respect to the content and experience they provide (Watanabe et al., 2016). Therefore, the proposed research considers two different platforms, specifically Twitter and Facebook, because these are the two dominant social media choices of sport fans (Gibbs et al., 2014). Moreover, these two platforms offer similar user feedback experiences, specifically allowing account holders to like, comment, and share posts, resulting in comparable 'using' experiences.

Second, all but one of the studies in Table 3 (i.e., Burk et al., 2016) focused on account followership, failing to consider other social media behaviours. While followership is important, it does not capture the unique nature of social media, specifically its interactive nature featuring user engagement. Moreover, engagements expand a post's reach; when a consumer interacts with a post, the post (through the engagement, specifically the like, comment, or share) is distributed among associated newsfeeds. Thus, interaction increases the reach of a post beyond followers, potentially garnering new followers and brand exposure. Furthermore, it provides an indication of user feedback, with consumers being able to voice their opinions and provide an

evaluation of a post. Therefore, this research considers engagements to provide additional insight by offering organizations the ability to increase their reach and popularity.

Finally, as observed in Table 3, the majority of studies (i.e., Jensen et al., 2014; Watanabe et al., 2015, 2016, 2017) employed least squares regression. While there are advantages to using least squares regression-based techniques, such as ease of interpretability, they are limited compared to other techniques available (e.g., machine learning). This has resulted in existing research encouraging the use of other statistical techniques and analytical frameworks (Jensen et al., 2014; Watanabe et al., 2015, 2016, 2017). Furthermore, emerging scholarship has found that more advanced analytical techniques, namely the data mining technique support vector machines (SVMs), are more accurate than standard linear regression with respect to capturing the complex, clustered nature of social media engagement data (Kennedy et al., 2020). Effectively, there are three existing limitations to current scholarship on determinants of social media use, which in turn limits the insights that can be derived with respect to sport experiences.

Advancements in technology, such as the widespread adoption of social media, have resulted in a digital element to the sport experience, one which did not receive significant attention in the current conceptualization of the SX framework. By examining the determinants of social media engagement, this research contributes to sport management scholarship in two distinct ways. First, it contributes to the ongoing literature base considering the determinants of digital behaviour by (i) considering engagement rather than followership, (ii) comparing platforms to identify platform specific nuances, and (iii) employing a machine learning technique to more aptly capture

the clustered and complex nature of social media data. Second, the findings identified through the investigation of determinants of digital behaviour expand the current conceptualization of the SX framework, challenging its current overly simplistic, static explanation, which favours man-made as opposed to digital contexts. Consequently, this research has important theoretical implications, responding to calls for deeper understandings of the impact of technology on consumer experiences (Funk, 2017) and investigations into the measurement and evaluation of new media usage by organizations (Pedersen, 2013).

Methods

To investigate the determinants of post engagement, this study utilized a NCAA Division I football team's social media accounts. The team's social media strategy included Facebook, Twitter, and Instagram, with a focus on Facebook and Twitter. Facebook and Twitter are among the most popular social media platforms used by sport fans to access sport media (Billings et al., 2017) and are the dominant social media choices among sport fans (Gibbs et al., 2014). As such, they were the focal platforms. Data were collected for the years 2017-2019 through a partnership with the sport team. This resulted in data being directly exported from the team's social media accounts, with the exception of Twitter followers' data, which cannot be exported for prior years. Because a complete record of Twitter account followers was unavailable due to platform restrictions, a SVM model was trained based on available data to estimate daily account followers.

Measures

Response feature. Since this research seeks to understand how consumers are ‘using’ social media, the response feature captures usage behaviour, specifically engagement. There are various types of engagements on Facebook (Twitter) including likes (favourites), shares (retweets), and comments. The Total Engagements that a post receives (i.e., the sum of post engagements) was used to make the results comparable between platforms. Specifically, for Facebook, Total Engagements was the sum of the likes, shares, and comments a post receives, whereas the equivalent for Twitter was the total of favourites, retweets, and comments. Not only does such a measure capture the ‘using’ behaviour necessary for the theoretical foundation of this research, but it is an important insight for organizations, thus ensuring this research provides data-driven insights that can be used to optimize social media strategies. Total Engagement captures how consumers interact with a post (i.e., an interaction throughout the consumer journey) and is thus a measure of user behaviour. Moreover, because engagements spread the reach of a post, organizations should understand their effects.

Determinants. Since engagement is dependent on several factors (e.g., post type, time of posting, and promotion) (Moro et al., 2016), a variety of determinants were identified based on past research (see Table 3, results column). First, existing research indicates that post timing influences followership (Watanabe et al., 2015, 2016) and engagement (Moro et al., 2016). As such, four factors captured the post date: year, month, day, and hour. Moreover, sport specific timing factors were incorporated. Two dummy variables were included to identify whether the post occurred during the football

season or on a game day. Next, because the social media account's popularity affects post visibility, account features were considered. The Facebook page's lifetime total likes, weekly total reach, weekly engaged users, and weekly total impressions were used, while the Twitter account's number of followers was used. Since past research indicates that account usage may impact followership (Jensen et al., 2014; Watanabe et al., 2015), the number of minutes since the last post was included. Past research indicates that the type of post considered impacts engagement rates (Moro et al., 2016). As such, for Facebook, a feature was included to indicate whether the post featured text, photo(s), video(s), a repost, or link(s). Finally, past research indicates that program success influences followership (Jensen et al., 2014; Pérez, 2013; Watanabe et al., 2015, 2016, 2017). Since this research only considered one sport team, team specific features (e.g., stadium size, number of alumni, etc.) would be consistent across posts. However, the performance of the team at a given point in the season varied. Therefore, to account for the team's performance, the team's win percentage (updated after each game) and the outcome of their previous game were incorporated. A summary of the determinants for Facebook and Twitter can be found in Table 4 and Table 5, respectively.

Table 4.
Frequency and Summary of Determinants and Response Feature for Facebook

Feature	Values						
Response feature	Min	Mean	Median	Max			
Total Engagements	0	54.0	40	266			
Determinants	Min	Mean	Median	Max			
Page Lifetime Total Likes	17,872	19,441	19,342	20,820			
Page Weekly Total Reach	1,732	22,330	17,791	100,638			
Page Weekly Engaged Users	100	2,216	1,837	11,387			
Page Weekly Total Impressions	3,091	85,229	74,814	322,194			
Post Hour	0.00	10.92	11.00	22.00			
Time Since Last Post (mins)	0.0	611.7	169.0	15,934.0			
Win Percentage	0%	56.9%	54.0%	100%			
Last Game	Win 701	Loss 275	Out of Season 756				
Type	Link 74	Photo 789	Shared Video 161	Status 8	Video 602		
Post Year	2017 697	2018 564	2019 373				
Post Month	January 96	February 86	March 94	April 103	May 80	June 45	
	July 71	August 157	September 206	October 233	November 265	December 198	
Post Weekday	Sunday 155	Monday 247	Tuesday 263	Wednesday 268	Thursday 249	Friday 234	Saturday 218
Football Season	Yes 887	No 747					
Game Day ₁	Yes 196	No 1,438					

Note. 1. There were 13 games played each year between 2017 and 2019 as the team qualified for a bowl game each year.

Table 5.
Frequency and Summary of Determinants and Response Feature for Twitter

Feature	Values						
Response feature	Min	Mean	Median	Max			
Total Engagements	0	95.07	77.00	394			
Determinants	Min	Mean	Median	Max			
Page Lifetime Total Follows	18,201	50,649	55,563	65,625			
Post Hour	0.00	15.23	17.00	23.00			
Time Since Last Post (mins)	0.0	376.9	70.0	9,917.0			
Win Percentage	0%	58.57%	60.0%	100%			
Last Game	Win 1,688	Loss 663	Out of Season 1,504				
Post Year	2017 1,345	2018 1,467	2019 1,043				
Post Month	January 148	February 140	March 189	April 227	May 143	June 92	
	July 133	August 396	September 665	October 579	November 720	December 423	
Post Weekday	Sunday 381	Monday 406	Tuesday 414	Wednesday 462	Thursday 482	Friday 598	Saturday 1,112
Football Season	Yes 2,374	No 1,418					
Game Day	Yes 1,301	No 2,554					

Data Mining

Data mining is a complex process that includes various phases. I followed the sequence of data preparation, model development, and model evaluation (Han, Pei, & Kamber, 2011) prior to conducting a sensitivity analysis to unearth the relative contribution of each determinant.

Data preparation. Although the majority of data were exported directly from the team's Facebook and Twitter accounts, data preparation was required. The date of each post was split into separate components, specifically year, month, day of the week, and hour, to allow for more accurate training and insights. Account-level determinants were extracted at the account level and assigned to posts based on the date. A post was classified as being during football season if it occurred on or between the first and last game days of the season. Similarly, a post was classified as being on a game day if it occurred on a day when a game occurred. The number of minutes since the previous post and program success (i.e., win percentage) were computed and assigned to the post based on posting date. The outcome of the last game was assigned during the season based on the previous game (i.e., win or loss), with an "out of season" for the off-season.

Model development. Using R v3.5.1, the number of total engagements for each post was modelled using the determinants. This procedure was conducted separately on the Facebook and Twitter datasets. A SVM model was selected due to its proven ability to capture more variance with respect to social media engagements than a standard linear regression (Kennedy et al., 2020). An exhaustive grid search (i.e., searching exhaustively through a subset of potential hyperparameters) was used to tune the model to determine

the best fitting model. On the Facebook dataset the model explained 31.1% of the variance in Total Engagements (RMSE = 38.37), while the R^2 value was 32.2% for the Twitter model (RMSE = 67.52). These R^2 values were on par with prior scholarship (Watanabe et al., 2016, 2017), but on the low end compare to some prior studies outlined in Table 3.

Sensitivity analysis. Once the model was developed, a sensitivity analysis (i.e., an analysis to determine how different determinants affect Total Engagements under a set of assumptions) was performed to unearth the relative contribution of each determinant (Cortez & Embrechts, 2013).

Determinants of Facebook Behaviour

Results

The Boruta function in R (i.e., a relevant feature selection wrapper algorithm) was used to confirm the relevant determinants. Specifically, this analysis performs a top-down search for relevant determinants through a comparison of the determinants' importance and importance achieved at random, estimating by using permuted copies with a progressive elimination of irrelevant determinants. Results of this analysis confirmed that all determinants were important and worth considering. As such, the SVM model was run using all 14 input features. The sensitivity analysis indicated that Win Percentage was the most influential variable (18.50%) followed by Page Weekly Total Reach (15.51%), Lifetime Page Total Likes (11.80%), Game Day (10.29%), Type (9.50%), Page Weekly Engaged Users (6.60%), Year (5.66%), Time Since Last Post (3.17%), Month (2.62%), Day (2.09%), Last Game (1.39%), Hour (1.27%), and Football Season (0.97%). Figure 2

visualizes the results of the sensitivity analysis, while Figure 3 displays the relationship of each determinant with Total Engagements.

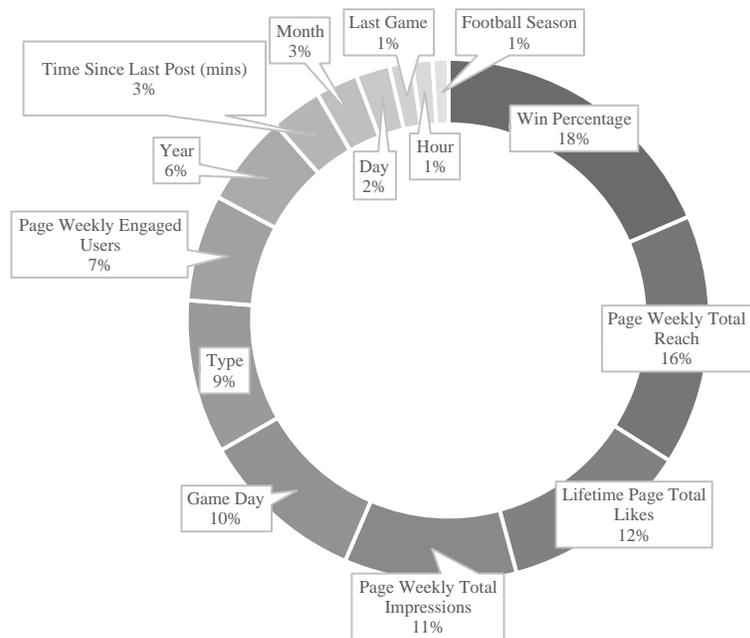


Figure 2. Relevance of the Determinants for Total Engagements

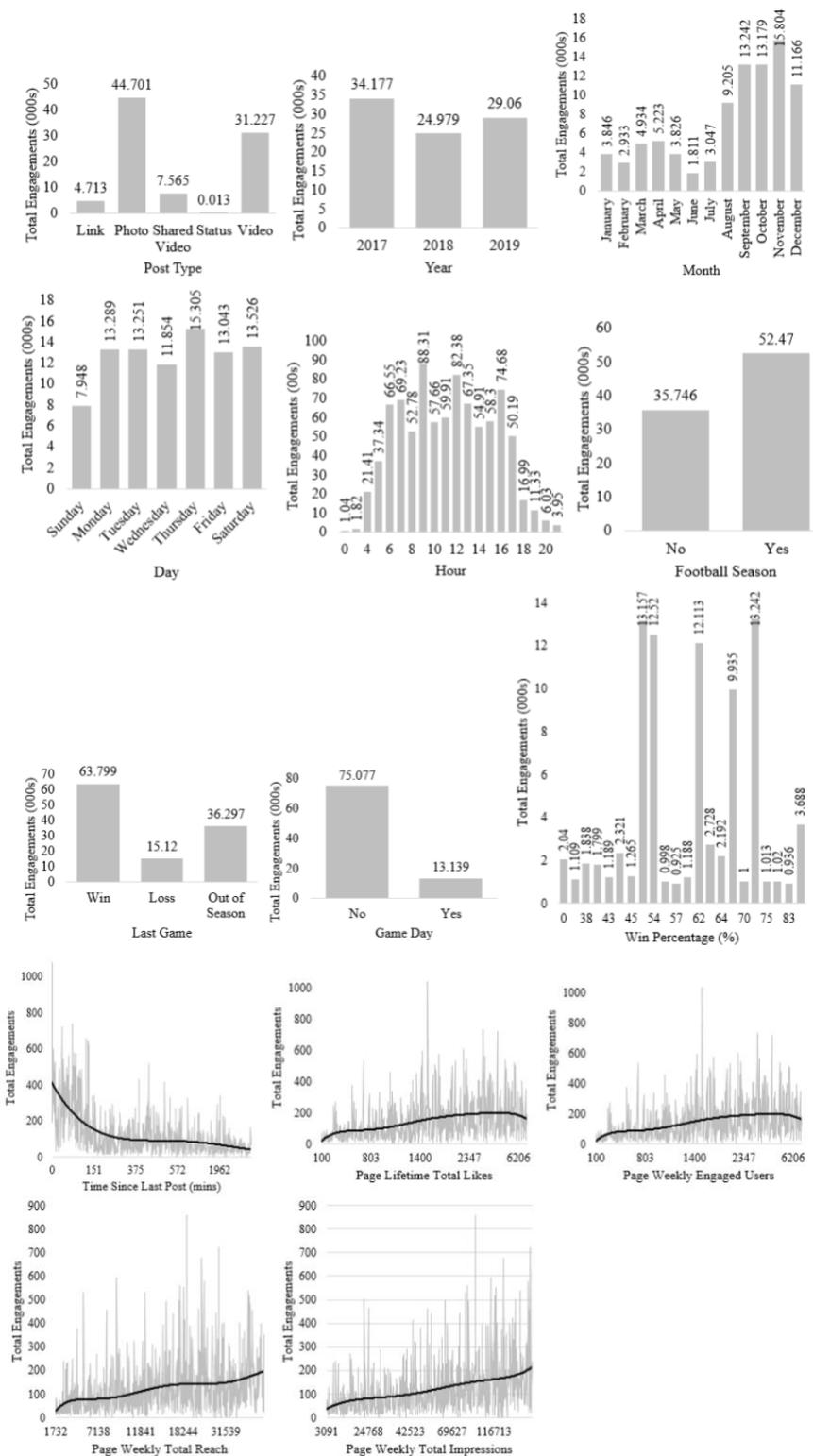


Figure 3. Relationship between Determinants and Total Engagements

Discussion

Fourteen determinants were considered to predict Facebook post engagement based on past literature (see Table 3). The sensitivity analysis indicated that Win Percentage was the most influential determinant considered, accounting for 19% of relevance to the model. This aligned with past research considering determinants of followership on Twitter indicating a positive influence of program performance (e.g., Jensen et al., 2014; Watanabe et al., 2015, 2016). Page Weekly Total Reach and Lifetime Page Total Likes were also responsible for significant relevance of the model, specifically 16% and 12% respectively. Examination of the determinants against Total Engagements (i.e., Figure 3) indicated a positive relationship between page visibility and post engagement, consistent with Moro et al.'s (2016) findings with respect to relevance and directionality. Next, Game Day accounted for 10% of the relevance to the model. This finding aligns with past research that found the timing of the post can influence Twitter followership (e.g., Watanabe et al., 2015). More broadly, it suggests that sport specific determinants (e.g., Win Percentage, Game Day, etc.) are important when examining social media usage behaviour. Finally, the remaining determinants accounted for less than 10% of the relevance to the model each, indicating they are of lesser importance.

Post Type (e.g., video, link, photo, etc.) was less relevant to the model than was indicated by past research (e.g., Moro et al., 2016), accounting for only 9.5% relevance. This may be in part due to the team's focus on photo and video content, with relatively limited use of links and status posts. With respect to Twitter followership, month was a

significant variable (e.g., Watanabe et al., 2015; 2016); however, results of the sensitivity analysis found that date variables such as month and day were relatively less influential with respect to the model (3% and 2% respectively). Though this inconsistency could be in part due to the different contexts (e.g., Facebook versus Twitter or Total Engagement versus followership), it could also be due to the sport-specific determinants accounting for the variance. For example, the dummy variable accounting for whether the post occurred during the football season or not would align with the months (e.g., football season is consistently September through December). As such, the sport-specific variables capture the seasonality of post engagement behaviour, with sport fans engaging with posts relatively consistently across the months of the season and of the off-season. These results indicate that Facebook page visibility as well as sport specific variables (e.g., performance and schedule) account for the majority of the relevance to the model.

Determinants of Twitter Behaviour

As per the relevant feature selection wrapper algorithm, all 10 determinants identified from past literature (see Table 3) were important. Thus, the SVM model was run using these 10 determinants, and a sensitivity analysis was conducted. Time Since Last Post accounted for the most relevance to the model at 29.56% followed by Win Percentage (18.35%), Game Day (11.37%), Last Game (8.64%), Month (8.28%), Lifetime Page Total Followers (6.79%), Hour (6.64%), Day (5.55%), Football Season (2.82%), and Year (1.98%). Figure 4 displays results of the sensitivity analysis, while Figure 5 captures relationships between each determinant and Total Engagements.

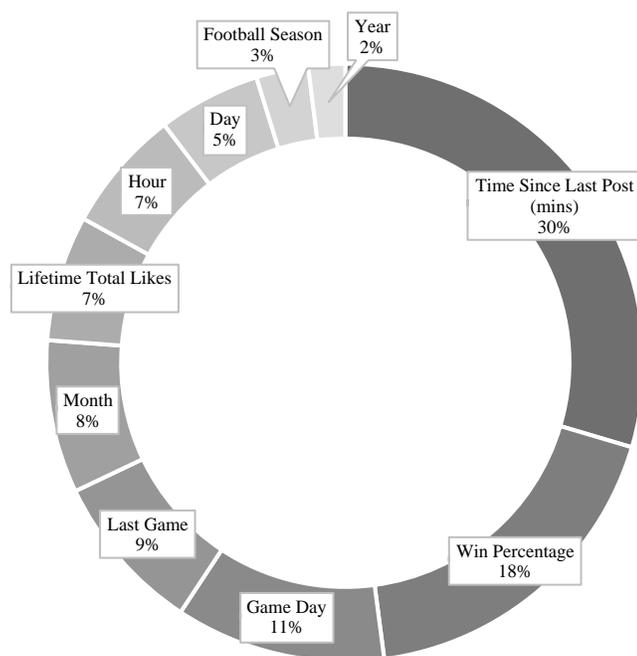


Figure 4. Relevance of the Determinants for Total Engagements

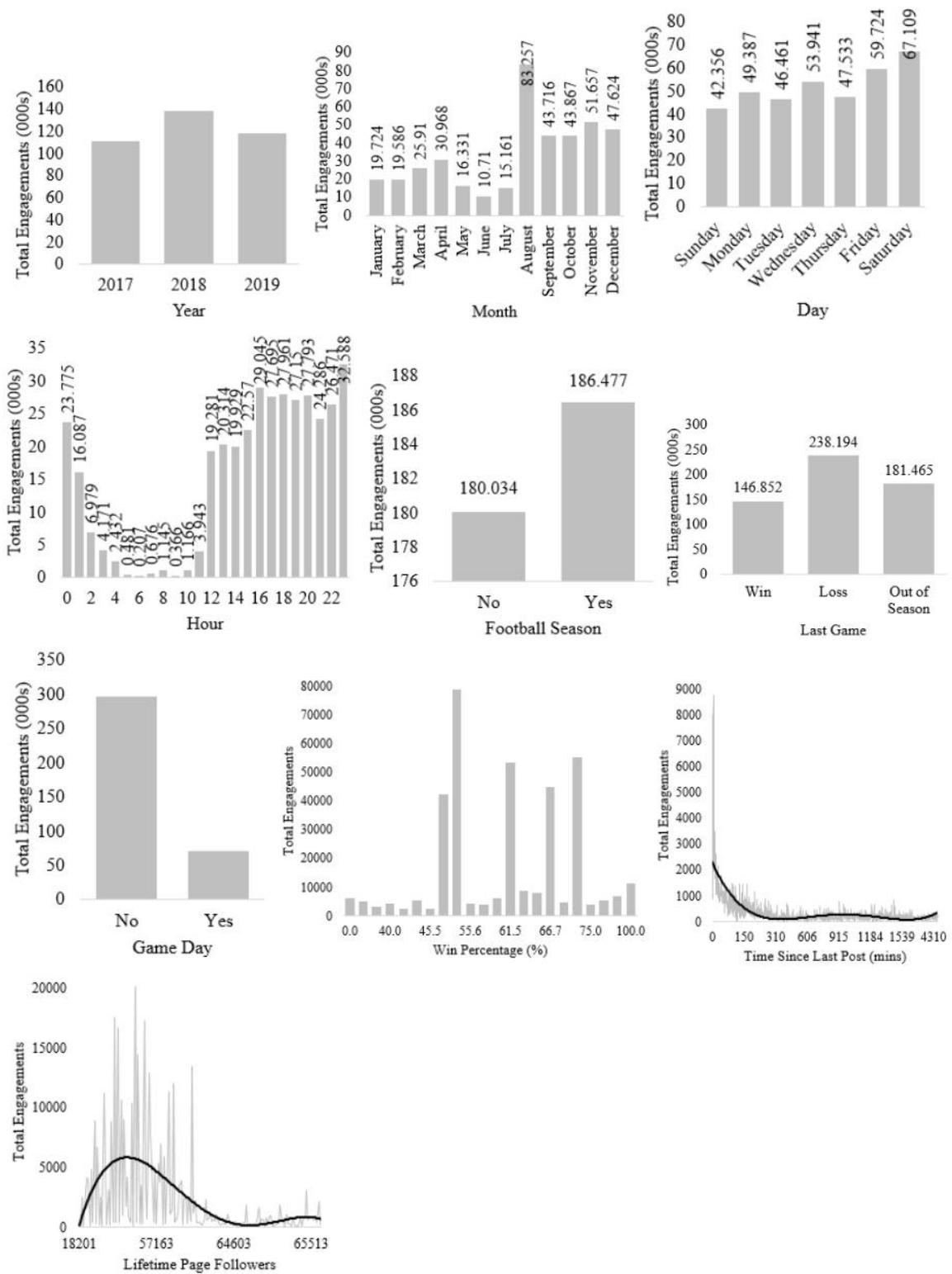


Figure 5. Relationship between Determinants and Total Engagement

Discussion

Ten determinants were considered to predict total Twitter post engagement. The sensitivity analysis indicated that Time Since Last Post was the most influential determinant considered, accounting for 30% of the relevance of the model. Subsequent analysis indicated posts occurring closer together accounted for more Total Engagements, with the number of Total Engagements generally decreasing as time elapsed between posts. This was consistent with past literature indicating account activity impacted followership, such as the number of tweets in the past 24 hours (Watanabe et al., 2015) and the total number of tweets (Jensen et al., 2014). Next, Win Percentage accounted for 18% of the relevance of the model. This aligned with past literature indicating program performance positively influenced Twitter followership (Jensen et al., 2014; Watanabe et al., 2016). Game Day accounted for 11% of the relevance in the model, which was inconsistent with past literature indicating that league events (e.g., all-star games, roster expansions, etc.) did not significantly impact changes in Twitter followership (Watanabe et al., 2015). This inconsistency could be due to the difference between followership and engagement; with engagement being a continuous behaviour that sport fans use to express their fandom and identity. Moreover, the importance of Game Day was consistent with previous findings indicating that seasonality and timing impact Twitter followership (Watanabe et al., 2015, 2016) and Facebook engagement (Moro et al., 2016).

The determinants of Last Game, Month, Hour, Day, Football Season, and Year each accounted for less than 10% of the relevance to the model. Previous literature found month, specifically early to mid-season, positively impacted Twitter followership

(Watanabe et al., 2015; 2016). This pattern was consistent with this study's findings that in-season months accounted for more Total Engagements than out of season months. However, the determinant of month only accounted for 8% of the relevance of the model suggesting that other determinants were more influential. One possible explanation for the limited relevance of month to the model is that the sport-specific timing related variables (e.g., Game Day and Football Season) accounted for the variance, with limited seasonality variation beyond these determinants. Year proved the least influential, accounting for only 2%. This was consistent with past literature which found year was not influential on the Twitter followership (Watanabe et al., 2017). Finally, Lifetime Total Page Follows only accounted for 7% of the variance in the model, with tweets occurring in lower followership numbers accounting for more Total Engagements than tweets occurring when followership was the highest. This finding ran counter to research considering the impact of visibility on engagements on Facebook (Moro et al., 2016) and followership on Twitter (Watanabe et al., 2016). One explanation for this difference could be the use-case for Twitter; specifically, sport fans using Twitter to follow trending topics and current events rather than specific accounts. Overall, these findings suggest that standard contextual determinants (e.g., month, day, etc.) account for less relevance of the model than sport-specific features such as performance and team context (e.g., tweeting updates during games).

General Discussion

This study used machine learning on social media post data from Twitter and Facebook to identify objective determinants of post engagement between and within the

two platforms. For both Facebook and Twitter, sport-specific determinants, such as Win Percentage and Game Day, accounted for significant relevance to the model. This aligns with prior literature that found team performance impacts followership (e.g., Jensen et al., 2014; Watanabe et al., 2015, 2016), extending existing scholarship by considering a different response feature, engagement. However, unlike past scholarship that found non-sport date related determinants, such as month (Watanabe et al., 2015; 2016), significantly impacted followership, non-sport date determinants were not overly influential. This could be in part due to the addition of sport-specific date determinants (e.g., Football Season and Game Day) accounting for the variance. Despite similarities between the influence of determinants in the Facebook and Twitter models, there were key differences between the platforms.

Both models were developed using comparable determinants and explained approximately the same amount of variance. However, the findings showed two notable differences between the platforms. First, the Time Since Last Post was an important input feature for Twitter, accounting for 30% of the relevance of the model. However, it was notably less important with respect to Facebook, accounting for only 3% of the relevance of the model. The difference in relevance between the two models may be attributed to how consumers use the different platforms. For example, previous research found that Twitter was used more often than Facebook to share news with fans and was seen as a “faster”, timelier platform characterized by instant feedback and responses; Facebook was likened to the team’s website (Gibbs et al., 2014).

Second, page visibility (captured through account-level determinants such as number of followers or page reach) was of greater importance with respect to post engagement on Facebook than on Twitter. For Facebook, Page Weekly Total Reach and Lifetime Page Likes accounted for 16% and 12% of the relevance of the model respectively. However, on Twitter, the Lifetime Number of Followers accounted for only 7% of the relevance. Thus, the page visibility is notably more important in predicting engagements for Facebook than Twitter. This highlights an interesting platform-based nuance that suggests different usage patterns between Facebook and Twitter. For example, a lower level of relevance to the model in Twitter could indicate that users are less focused on the accounts they follow on Twitter, rather engaging with posts that are trending or part of an on-going conversation. These findings have important theoretical implications, particularly with respect to determinants of social media engagement as well as sport experiences and the SX framework.

Theoretical Implications

The current research contributes to sport management scholarship in two primary ways. First, it outlines limitations of the existing explanation of the SX framework, specifically, how it is too simplistic, static, and physically orientated. An updated version of the SX framework is proposed to better capture the dynamic and complex nature of the sport consumption context. Second, the current research expands existing scholarship on determinants of digital behaviour.

In its introduction, the SX framework oversimplifies the sport consumer experience into three interrelated elements that are static, while emphasizing the man-

made physical components of experiences. For example, the explanation provided by Funk (2017) describes one sport organization organizing and facilitating a singular event for a specific sport user with specific physical design elements. This is exemplified in sport management scholarship on event satisfaction, which often focuses on service quality elements, omitting elements affecting the experience beyond the event weekend or outside of the control of the sport organization (Du et al., 2020). However, the current research indicates that the digital component of sport experiences blurs the traditional perspectives of the elements of the sport experience. Hence, an updated version of the SX framework is proposed to better capture the dynamic and complex nature of sport consumption experiences. This SX framework v2.0 is visualized in Figure 6.

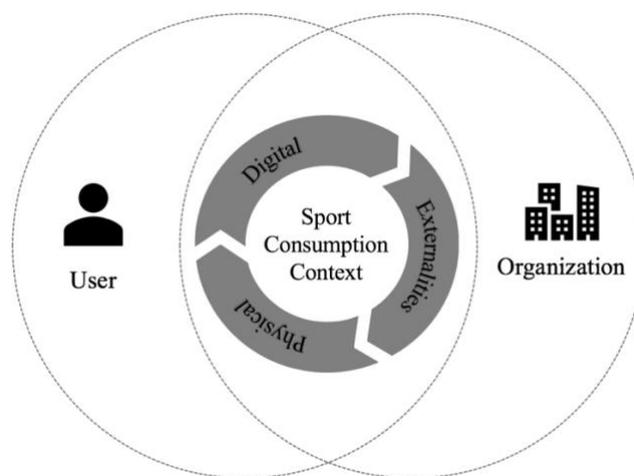


Figure 6. SX Framework v2.0

The digital element of sport experiences introduces a range of complexities into the SX framework. The updated version, SX framework v2.0, has been created to better capture these complexities as well as the dynamic nature of the sport consumption context. As illustrated in Figure 6, the sport user and organization still come together to

create the sport consumption context as outlined in the original SX framework. However, following Pizzo et al.'s (2020) amendment, the intersection of the sport user and organization is the point at which the consumption context occurs, rather than the context being a separate, static circle. While still allowing for the sport context knowledge domain to be captured, this visualization simplifies and clarifies the SX framework while eliminating confusion as to whether or not the sport context can exist independent of the organization or user (Pizzo et al., 2020). With insights derived from this research, two additional amendments to the SX framework are proposed by illustrating the consumption context through a three-element circle. This circle is created with arrows to show that (i) these three elements overlap and interact with each and (ii) the context evolves and continues to develop throughout the sport experience. The three elements included are digital, physical, and externalities.

The elements of digital and physical are included to underscore the importance of considering both elements of the context. Though the explanation of the original SX framework acknowledges digital elements of the sport context (Funk, 2017), it focuses on the physical elements, such as the service delivered by the organization (e.g., quality of food, friendliness of staff, etc.). However, by focusing on a digital context, the results of this study reveal that the digital consumption experience has contextual characteristics just as the physical does. As such, there are physical elements to a context (e.g., location in which the sport consumer exists) as well digital elements (e.g., platform being used, device being used to access it, etc.). While physical contexts may be consistent across many sport users (e.g., all sport fans in a stadium see the same halftime show at the same

time), no two digital contexts will be consistent across participants as they follow different accounts on different social media platforms which are constantly providing users with new content. The design elements of these digital contexts, such as posting tweets frequently or infrequently, can impact the users' engagement behaviours. Hence, these two elements have been explicitly labeled in the sport consumption context of the SX framework v2.0 to underscore their presence and interaction.

In addition to the physical and digital elements of the sport consumption context which were already acknowledged in existing explanations of the SX framework (Funk, 2017; Pizzo et al., 2020), this research introduces a new element, namely externalities. Externalities is included to capture the elements of the sport consumption experience outside of the sport user or organization that impact the context. Similar to the concept of network externalities, which are the effects on a user of a product or service of others using the same or compatible products or services (M. L. Katz & Shapiro, 1985), externalities captures the influence of the interaction with and impact of other users and organizations on the sport context. For example, prior scholarship has found that network externalities impact the usability and pleasure of social media experience, such as by enhancing usefulness of and enjoyment derived from Facebook (Lin & Lu, 2011). With respect to this research, results found platform specific nuances in the sport experience as the importance of determinants relative to social media using behaviour was conditional on the platform considered. This suggests that numerous organizations, both sport and non-sport, are involved in the development and delivery of sport experiences. In other words, there can be more than one organization (i.e., digital platform providers as well as

the host sport organization) impacting sport experiences, unlike the original conceptualization of the SX which implies the sport organization is singular entity hosting the experience. Hence, the SX framework v2.0 includes externalities in the sport consumption context to acknowledge that other organizations, users, and external forces can alter the context beyond the user and the host organization.

In the SX framework v2.0, the three elements are represented using circular arrows to illustrate how the sport context is continually evolving. This was done purposefully to challenge the static explanation by the original SX framework which focused on event experiences where a single context was facilitated for a single event (Funk, 2017). Results indicated that engagement was changing based on evolving characteristics, such as time since last post or team performance. Thus, rather than being a set digital context that the organization facilitates for the consumer, the context of the social media experience was continually changing as new content was posted and as the team's performance changed over time. In lieu of an episodic context that is created for a specific event or timeframe, the social media context is omnipresent and evolving as time passes with potential determinants of engagement changing over time (e.g., team performance, time since last post). Consequently, the second amendment distinguishing the SX framework v2.0 from its predecessors is the circle of arrows illustrating the dynamic nature of sport experiences.

Effectively, this research demonstrates that consumers are constantly consuming and performing cognitive, social, and behavioural actions in a digital universe that is unique to them and is continually changing regardless of the sport event. This outlines the

complex, dynamic nature of sport consumer experiences which was oversimplified by the SX framework. Hence, the SX framework v2.0 was developed to update the original framework to underscore the complexity of the sport context, including the digital, physical, and external elements, as well as highlight its dynamic evolving nature.

In addition to its theoretical implications for the SX framework, this research also contributes theoretically to the emerging literature considering determinants of social media behaviour. First, by considering engagement rather than followership, this research considers determinants of a different social media behaviour. Results found some similarities between the determinants of followership versus engagement (e.g., program performance) (e.g., Jensen et al., 2014; Watanabe et al., 2015, 2016). However, there were also some key differences such as an importance of sport-related timing variables, such as Game Day affecting engagement, while events did not affect followership in past literature (e.g., Watanabe et al., 2015). Next, this research focused on ‘using’ behaviour, examining the on-going continued engagement of fans over time; extending our understanding of consumer experiences and responding to calls for understanding ‘using’ behaviour (Funk, 2017). This captured the on-going behaviour of sport fans throughout their digital sport experiences. Finally, existing scholarship on determinants of social media behaviour was extended by considering multiple platforms. Results indicated the relevance of determinants of consumers’ post engagement behaviours were conditional upon platforms. This underscored the importance of considering multiple organizations (i.e., platforms and the host organization), while confirming the unique nature of each social media platform suggested by previous literature (e.g., Billings et al., 2017, 2018;

Gibbs et al., 2014). It also identified the varying contextual characteristics (e.g., time since last post, page visibility) that can vary in importance depending on the platform. In turn, this underscored the complexity of sport consumer experiences and identified important insight for sport organizations.

Managerial Implications

This research investigated determinants of social media engagement to address industry concerns related to understanding ideal ways to engage with audiences, improve organic reach, and identify effective social media tactics (Stelzner, 2019). Results identified specific determinants of social media engagement as well as platform specific nuances. This provides important insight into how sport organizations should develop and execute their social media strategies.

The results indicated platform level nuances, implying that sport organizations should not apply the same social media strategies across platforms, but rather develop platform-specific strategies and content. Since page visibility is an important determinant of engagement on Facebook, particular attention should be paid to increasing page visibility (e.g., followership and reach) on Facebook, such as through promoted posts or campaigns that encourage followership (e.g., like and share a post or invite friends to a page to be entered into a prize draw). However, on Twitter, page visibility was less important, with an importance placed on the timing of posts. There was increased engagement on posts that appeared close together, which occurred most frequently when providing game-time / news updates. Therefore, Twitter social media strategies should prioritize timely, frequent information updates that are temporally related to existing

activation points, such as games and events. This suggests that Twitter should be used to leverage the excitement and buzz of events, expanding the consumer experience to the digital universe. This in turn provides additional touchpoints for sport consumers, such as allowing them to express their fandom or identity.

Such nuances between platforms could signal a different usage experience for sport fans. For Facebook, page visibility is an important determinant of engagement, suggesting that for consumers to interact with a post, it likely appeared in their newsfeed organically, rather than virally. Conversely, page visibility is a less important determinant of engagement on Twitter, suggesting that consumers view and engage with posts that appear to them virally (e.g., because a friend has interacted with it or because it is trending). This aligns with Gibbs et al.'s (2014) assessment that sport fans likely Facebook to a team's website, while Twitter is seen as a source of news and information. Sport organizations should take this into consideration when designing social media strategies, specifically having content and distribution decisions conditional upon the social media platform. For example, on Twitter, posts should be developed to incorporate trending topics and hashtags to increase visibility, while Facebook's should be targeted at existing followers. Moreover, additional research should seek to confirm how sport consumers use each platform to confirm these findings and enhance understanding of digital sport consumer experiences.

Limitations and Future Directions

Through the investigation of consumer behaviour on multiple social media platforms, this research provided insights with respect to the determinants of social media

usage and the complexities of user experiences. However, there are still limitations of this research as well as important future directions that should be considered. First, this research focused on explaining social media ‘using’ behaviour, outlining the determinants of engagement across platforms. This did not allow for an in-depth analysis of the psychological underpinnings of user behaviour; for example, understanding motivations for using a particular platform or engaging with a particular post. Future research could focus on how and why sport consumer use and balance the social media platforms available to them to complement this behaviour-based analysis.

This research considered one sport team on two social media platforms. Although Facebook and Twitter were selected as (i) they were the dominant social media platforms of this sport team, (ii) they are the platforms fans identified as their dominant social media choices (Gibbs et al., 2014) and among the most popular social media platforms used by sport fans to access sport media (Billings et al., 2017), and (iii) they share similar user feedback experiences (e.g., liking, commenting, and sharing), additional social media platforms should be considered to confirm platform specific nuances. For example, recent years have seen the rise in popularity of platforms such as Instagram and the development of new platforms such as TikTok. Future research should consider additional platforms, especially conducting comparative analyses to identify differences and similarities among platforms. Moreover, the findings should be confirmed with additional sport teams and sport entities, such as teams versus sport events, to make the findings increasingly generalizable.

Finally, this research also considered a limited subset of objective determinants based on prior literature. However, there are potentially additional important determinants of engagement that were not considered including if the post belonged to a specific marketing strategy and post content categorization. For example, posts could be categorized based on their content (e.g., which brand attributes they contain) or the emotional reception they illicit in a follower. Moreover, future research could explore the application of text and photo analysis through machine learning techniques to be able to categorize the content of existing posts based on patterns and trends in the data, as opposed to manually classifying posts based on prior knowledge or theoretical frameworks. Future research should continue to identify important determinants of engagement to ensure a comprehensive understanding.

Conclusion

This research sought to understand how the elements of the digital sport consumption context impacted social media usage. It did so by continuing a necessary line of inquiry into digital consumer experiences by investigating the determinants of engagement, extending sport social media scholarship in two ways. First, it highlighted the complexity of digital user experiences, challenging the static, simplistic, physical explanation of the SX framework (Funk, 2017). Results identified the layers that exist among the interrelated elements of the sport experience, namely the additional organizations that facilitate the experience and the additional contextual characteristics in the digital realm. Consequently, an updated version of the SX framework, namely the SX

framework v2.0, was created to underscore the dynamic, complex nature of the sport consumption context.

Second, this research contributed to the growing body of scholarship considering determinants of digital behaviour in three ways. First, it expanded existing efforts by considering two social media platforms simultaneously; building on existing research that has primarily focused on Twitter, while responding to calls for future research to consider other social media platforms due to the unique nature of each platform (Watanabe et al., 2016). Second, it extended the current body of literature by considering determinants of engagement, rather than followership. Though followership is important, engagement captures consumers' behaviours responding to calls to focus on 'using' (Funk, 2017) and is an important indication of consumer engagement and strategy effectiveness. Third, this research employed SVMs to not only respond to calls for different techniques in both sport consumer behaviour literature (Funk, 2017) and analytical social media research (Jensen et al., 2014; Watanabe et al., 2015, 2016, 2017), but also captured the clustered nature of social media data (Moro et al., 2016) and provide more accurate, in-depth insights. This research extended the existing line of inquiry considering determinants of social media in pursuit of deriving data-driven insights that can be used to optimize sport consumers' digital experiences.

CHAPTER 4

UNDERSTANDING DIGITAL EXPERIENCES: OPTIMIZING TIMING OF ADVERTISEMENTS IN MULTI-SCREEN VIEWING ENVIRONMENTS

Multi-screen viewing, a form of media multi-tasking where a consumer leverages multiple screens simultaneously (e.g., watching TV while on a mobile device) (Segijn & Eisend, 2019), is a popular behaviour of media consumers. For example, in the United States, 81% of consumers use another device while watching TV and 72% use another device while streaming digital video on TV (Statista, 2017b). Multi-screen viewing features a combination of two visual tasks with some degree of temporal overlap as well as a divide in the consumer's attention between the two tasks/screens (Segijn et al., 2017). This results in a patchwork of overlapping devices including smartphones, TVs, and computers, creating unprecedented complications for advertisers seeking to reach consumers across their devices (Evans, 2012). Such technology adoption overturns traditional advertising procedures; the increased complexity of advertising in multi-screen environments has left organizations struggling to optimize their advertising spend across medium and within medium. Despite that, it is critical for organizations to develop ways to monetize the second screen (Lopez-Gonzalez, Stavros, & Smith, 2019). Thus, academics and practitioners alike are attempting to research and understand advertising in the new multi-screen reality.

Multi-screen viewing can result in consumers paying less attention to the focal screen and therefore a decrease in their memory about the focal screen such as

advertisement (ad) and brand recall. For example, research has demonstrated that second screen viewing involves to a higher cognitive load than single screen viewing, thereby negatively impacting recall and comprehension (Van Cauwenberge, Schaap, & van Roy, 2014). Moreover, dual task television consumption results in lower recall than single task consumption (Oviedo, Tornquist, Cameron, & Chiappe, 2015). Specific to marketing implications, Segijn and Eisend's (2019) meta-analysis reveals media multitasking leads to lower cognitive outcomes (e.g., brand recall, brand recognition, attention) compared to single screen consumption. Such negative impacts may result in companies searching for new advertising venues or devaluing existing TV ad spots. Since media companies have relied heavily on TV advertising revenue for more than six decades (Chong, 2018), their continued success requires adaption to the new TV viewing reality, specifically multi-screen viewing. Effectively, the competition for attention allocation between screens can result in traditional advertising, such as commercials, being affected by the integration of multiple screens (Cunningham & Eastin, 2017). Consequently, it is important for advertisers to understand how to minimize the negative impacts of multi-screen viewing to optimize advertising efficacy.

Existing research has focused on advertising outcomes when the ad appears on the primary screen (e.g., the TV), not when it appears on the second screen. However, rapid technological advancements and adoption have led to a transition or convergence of consumers' second screen devices (e.g., mobile phone, tablet, computers, etc.) to first screen status (Lopez-Gonzalez et al., 2019). As the mobile screen commandeers an increasing amount of a consumer's attention, the consumption experience changes,

challenging existing knowledge related to marketing, advertising, and consumer experiences. For example, as consumers dedicate increasing amounts of attention towards the second screen, it becomes an ideal advertising medium that can be leveraged by organizations. This research investigates how to optimize advertising in the multi-screen environment with an emphasis on the second screen; specifically, how organizations should optimally time ads appearing on the second screen during a sport broadcast. Therefore, the purpose of this research is to understand how the timing of ads influences ad memory in multi-screen environments when the ad appears on the second screen.

Literature Review

Multi-Screen Viewing and Advertising

In recent years, there has been a proliferation of research considering the impacts of multi-screen viewing on advertising. The majority of such research indicates the negative impact of multiple screens on advertising effectiveness, with explanations often citing human's limited ability to simultaneously process multiple sources of information and balance attention between sources (Kahneman, 1973; Lang, 2000). Attention is a finite resource: A consumer's ability to process and recall information, such as advertising content, is decreased when multi-tasking, or in this case in a multi-screen environment. Research has consistently found a decrease in memory tests, such as ad recall and recognition, for those in multi-task, as opposed to single-task, environments (e.g., Angell, Gorton, Sauer, Bottomley, & White, 2016; Bellman, Robinson, Wooley, & Varan, 2017; Bellman, Rossiter, Schweda, & Varan, 2012; Voorveld, 2011). This is further underscored in Segijn and Eisend's (2019) meta-analysis that found cognitive

outcomes (e.g., brand recall, brand recognition, etc.) are lower for those in multi-screen environments, compared to their single-screen viewing counterparts. Despite research consistently demonstrating negative results of multi-screen viewing on information processing and cognitive outcomes, consumers continue to engage in multi-screen viewing. As such it is important to investigate conditions under which advertising can succeed in multi-screen environments, or at least be less negatively impacted.

After consistently demonstrating that multi-screen viewing negatively impacts cognitive outcomes compared to single screen viewing, research has moved beyond comparing these two viewing conditions to investigating the mediating impact of multi-screen viewing environments. There is emerging evidence that not all multi-screen environments are equally detrimental on advertising. For example, the task relatedness (or contextual congruence) between the two screens can alter the negative impact of multi-screen viewing on advertising outcomes. Segijn et al. (2017) found across a pair of studies that related multi-screen viewing resulted in better brand memory and more favourable brand attitudes than unrelated multi-screen viewing. Similarly, Angell et al. (2016) found that contextual congruence determined how successfully consumers were able to process and recall advertising content embedded in the primary screen. Moreover, advertising-related factors, such as the type of ad (e.g., commercial break, product placement, versus banner ad), advertising clutter (e.g., number of ads), and brand familiarity (e.g., familiar versus unfamiliar brands), have also been found to impact cognitive outcomes (Segijn & Eisend, 2019). Effectively, research has begun to identify

possible viewing conditions that would attenuate the negative impact of multi-screen viewing on advertising.

Existing research provides important insight into advertising in multi-screen environments, but it is limited to when the ad is on the primary screen. While prior research has considered advertising-related factors, ads were limited to the primary screen. Though this provides valuable knowledge, it omits the advertising platform that is the second screen. Moreover, it also overlooks the increasingly prominent role that the traditional “second” screen has in the viewing environment (Lopez-Gonzalez et al., 2019). The transition or convergence of the second screen to first screen status is occurring, providing advertisers and organizations with new opportunities to leverage this increasingly valuable screen. As such, this research investigates how to optimally advertise in the multi-screen environment when the ad occurs on the second screen, answering the following research question:

How can the distribution of ads on the second screen be optimized to enhance ad memory?

Hypothesis Development

The second screen represents an important medium through which advertisers can reach consumers as it increasingly commandeers the attention of users. Existing scholarship has found that the second screen dominates consumers’ attention (Brasel & Gips, 2011; Lopez-Gonzalez et al., 2019). For example, when comparing attention allocation between television and computer consumption in a multi-screen viewing environment, the computer was the focal medium despite being referred to as the second

screen (Brasel & Gips, 2011). Moreover, Lopez-Gonzalez et al. (2019) argued that second screens are usurping the primary screen's focal status as they offer additional features and value, such as payment and tracking devices, and reflect the broader transition from collective consumption devices to those that are more individualistic. As such, it is increasingly important to consider advertising on the second screen. Therefore, to extend the existing line of inquiry on multi-screen advertising, this research begins by confirming findings of advertising on the primary screen on the second screen. Existing scholarship has consistently found that multi-screen viewing negatively impacts cognitive and affective advertising outcomes (Segijn & Eisend, 2019) due to the limited cognitive processing capabilities of consumers.

Capacity limitation theory (Lang, 2000; Zhang, Jeong, & Fishbein, 2010) and the theory of attention and effort (Kahneman, 1973) outline how consumers have limited cognitive capacity to process information that is received from their environment. For consumers, attention is a finite resource. Any attention allocated to an additional screen directly takes attention away from the previous screen(s). Based on this understanding of the limitations of cognitive processing, the first two hypotheses are developed to confirm existing research findings on the relationship between multi-screen advertising and cognitive outcomes, specifically ad memory, in the context of advertising on the second screen. This foundation is necessary to understand how to optimally distribute ads on the second screen. Based on capacity limitation theory and the theory of attention and effort, the relationship between attention paid to each screen must be inversely related. As such,

it is suggested that there is an inverse relationship between attention allocation per screen leading to Hypothesis 1.

H1: There is an inverse relationship between primary and second screen viewing.

Such an inverse relationship between viewing of the two screens implies that there is an optimal time to advertise on a given screen to increase cognitive outcomes. To ensure a user does not miss important information, it is important to ensure the user's attention is allocated to the right screen at the right time (Vanattenhoven & Geerts, 2017). Specifically, while the consumer's attention is allocated to the primary screen, advertisers would want their ad to appear on the primary screen. Conversely, when the consumer is focusing on the second screen, it would be optimal to have the ad appear on the second screen. Therefore, during multi-screen viewing, it is anticipated that the amount of attention dedicated to the second screen will influence the efficacy of its ads. Hence,

H2: There is a positive relationship between second screen viewing and ad memory¹.

Next, this research considers a variable that could impact the aforementioned relationship considering attention allocation between the primary and second screens. Existing scholarship has considered potential mediating variables, such as program involvement which was found to positively impact ad recognition (Segijn et al., 2020). Program involvement captured the motivated state of a consumer relative to the focal TV content. However, it did not capture the enduring motivation that a consumer might have

¹ Ad memory is used to capture two distinct variables, ad recall and ad recognition. To ensure robust findings, the analyses were conducted twice, once using ad recall and once using ad recognition. To simplify, the term ad memory has been adopted throughout to discuss both variables simultaneously despite the fact they are two separate variables.

for that type of content in general. As such, this research continues the line of inquiry into related variables by considering enduring involvement as it is likely to influence the viewing experience.

Enduring sport involvement, the perceived personal importance of engaging in a sport activity built upon intrinsic needs, motives, and interests (Havitz & Dimanche, 1999), is indicative of the knowledge and understanding a consumer possesses with respect to the sport and its various elements (e.g., team, players, culture, etc.) (Funk & James, 2001). Sport involvement has been linked to an increase in a variety of behavioural outcomes including the frequency, depth, and breadth of sport activities (Beaton, Funk, Ridinger, & Jordan, 2011). Moreover, sport involvement is positively related to mediated consumption of sport such as smartphone (Ha, Kang, & Kim, 2017) and television usage intentions (Reams & Havard, 2017). In other words, the enduring personal relevance of the sport to the consumer positively impacts sport media consumption. Thus, sport involvement could alter the attention a consumer directs towards each screen in a multi-screen environment. For example, a highly involved fan may focus on the screen streaming the sport game over another screen featuring an unrelated task (e.g., checking email), while a less involved counterpart may favor the second screen. Therefore, the following hypothesis is proposed:

H3: Enduring sport involvement moderates the inverse relationship between primary and second screen viewing.

Effectively, the first three hypotheses seek to confirm and extend our existing understanding of advertising in multi-screen environments by focusing on advertising on

the second, as opposed to primary screen. To continue this line of scholarship, the final hypothesis explores a way to optimize advertising on the second screen by considering timing of ads.

As previously outlined by capacity limitation theories, human have limited ability to balance attention between sources as well as simultaneously process multiple sources of information (Kahneman, 1973; Lang, 2000). Consequently, consumers must decide how to optimally balance their attention to try and maximize their viewing experience. For example, waiting until commercial breaks during a focal program to complete tasks is an example of a way consumers balance their time. Rather than miss focal program content, consumers can avoid mass media advertising by going to the bathroom or getting a snack (Rotfeld, 2006). Effectively, consumers have found that they do not enjoy mass media advertising and can thus miss this portion of a viewing experience with little negative impact on their overall program viewing experience.

On a more granular level, within a given TV program, there are likely times that a consumer can focus on the second screen to obtain a balance between the two screens. Sport content features a variety of tempos, with some moments becoming more “valuable” in a game. For example, when the game is in core action (e.g., a ball is thrown in football), it is at its peak level of interest for consumers, and thus considered the most “valuable” to view compared to supplemental content (e.g., replays and commentary) meaning the primary screen will commandeer the attention of the consumer. Conversely, during supplemental content, attention is more likely to be diverted towards the second screen. Building off the existing hypotheses that attention allocated to the second screen

will positively impact ad memory, it is anticipated that when it is a favourable time to divert attention to the second screen, such as during less valuable content, there will be higher levels of ad memory. Thus,

H4: Ad memory will be related to the game content, with higher levels of memory occurring during supplemental compared to core action content.

Overall, as multi-screen viewing becomes common place in consumption experiences, it becomes increasingly important to understand this context and its impact on behaviour. This line of inquiry has important managerial implications; specifically, providing insight on the distribution of ads in multi-screen environments. Moreover, the results of this research make theoretical contributions to existing multi-screen literature by understanding how advertising effectiveness changes as consumers embrace multiple screens. Results also confirm cognitive limitation theories (Kahneman, 1973; Lang, 2000, 2006) by providing evidence of contextual elements that attenuate the impact of humans' limited processing capabilities. It does so by building on existing research efforts that have studied advertising in multi-screen environments by considering: (i) advertising on the second (as opposed to primary) screen, (ii) the timing of ads, and (iii) the moderating effect of enduring involvement with primary screen content. A lab experiment was conducted to derive these findings as explained in the following section.

Method

To explore how to distribute ads on the second screen to optimize ad memory, a within subjects lab experiment was designed. Participants watched a clip of a sport game while playing an unrelated anagram game on their secondary device that featured pop-up

advertisements. A sport featuring a variety of tempos in play (e.g., a large amount of stoppages in play that feature supplemental content such as replays and commentary), specifically American football (NFL), was used to assess the impact of game content on ad memory. Participants were instructed to focus their attention to both screens and told that their memory of the football game on the primary screen as well as their performance on the anagram game would be monitored and evaluated. After engaging in the multi-screen experience, participants completed a survey questionnaire.

Participants

Younger consumers are more likely to embrace multi-screen viewing (Courtois & D'heer, 2012); therefore, 234 students were recruited to participate. This followed past research precedent that intentionally recruits participants likely to engage in multi-screen behaviour in their everyday lives (e.g., Jensen, Walsh, & Cobbs, 2018). Of the recruited subjects, 20.9% of participants were excluded as they did not complete the full experiment. This resulted in 185 usable responses, which was a sufficient sample size based on a prior power analysis.

Design

The design simulated a multi-screen viewing experience in a lab experiment by having participants watch a football game clip while playing a game on their second screen. Each participant watched a clip of a football game on a large screen. Simultaneously, participants were asked to play an unrelated game (i.e., solved anagrams) on a custom app (developed for this research) using their second screen that contained in-app ads (controlled by the experimenter) typical of free games. The choice

to solve anagrams as the secondary task was consistent with past research precedents (e.g., Segijn et al., 2017). After the multi-screen viewing experience, participants completed a survey to gather additional information.

Stimulus development

A football game from a recent NFL regular season was selected as it featured a variety of tempos throughout game play and as such was appropriate for this study's purpose. Games from a recent regular season were reviewed to select a game that was recent enough to feature similar rules and viewing experiences (e.g., same star players), while being distant enough that participants would not remember the game if they had watched it live. To ensure enough game time to realistically view the required number of pop-up ads, a clip of 13:40 minutes was selected. Games featuring the local NFL team were reviewed, and the game with the most excitement early on was selected to encourage viewership. The game clip did not feature any commercial breaks, allowing the emphasis to be placed on game content variation. Consequently, there were no ads on the primary screen.

A custom app was developed for the purpose of this experiment. A screenshot of the app can be found in Appendix A. It featured an anagram game where users were presented with a scrambled six letter word and were asked to reorder the letters and submit the actual word. By developing an app for this experiment, behavioural data were collected including: (i) anagrams seen and solved, (ii) timing of anagrams (e.g., when the participant solved it), and (iii) interaction with pop-up ads (e.g., if the ad timed out or was

closed). Another advantage to developing a custom app was experimenter control over the design and distribution of the pop-up ads featured.

The ads, visible in Appendix B, were static images developed by the researcher but featured real brands. The order in which the ads appeared was randomized across participants, but each participant saw the same set of ads appearing individually at pre-set times. Specifically, three pop-up ads appeared during core action content and six during supplemental content (e.g., three during replays and three during commentary). For each pop-up, the user could close out of the ad immediately or it timed out after 15 seconds. Therefore, theoretically, a participant watching the primary screen exclusively could have a pop-up appear and time out on their second screen without them ever viewing it. Since brand familiarity can impact ad memory, participants reported their brand familiarity with the nine brands on the post-experiment survey on a 3-point scale (familiar, somewhat familiar, and unfamiliar) (Pitts & Slattery, 2004). Mean brand familiarity scores for ads were computed and compared with no brands being significantly more or less familiar to participants on average.

Following the multi-screen viewing experience, participants completed a survey to collect various psychological and behavioural constructs. Each participant was provided with a unique ID number that was used to match their survey responses to the data collected from the app. Thus, the dataset featured a combination of measures collected from the survey and the app.

Measures

Psychological and behavioural measures. There were two dependent variables, ad recall and ad recognition, in this study collected from the survey resulting in the analyses being duplicated for each variable. First, ad recall was collected by having respondents list as many brands as they could remember seeing pop-up ads for. For each correctly identified brand, the participant was rewarded one point. Since there were a total of nine ads, a score of nine out of nine indicated perfect recall. Second, ad recognition was measured by providing participants with a list of 12 brands, the nine featured in the app and three decoy brands and having them indicate if they remembered seeing that brand or not. The results of the decoy brands were not used; thus, ad recognition was computed similarly as a score out of nine. Moreover, to assess the impact of timing, three separate ad recall and ad recognition variables were computed by cross-referencing when the ad appeared (i.e., during core action, replay, or commentary content) and if it was recognized by the participant resulting in two sets of three scores out of three (i.e., core action, replay, and commentary ad recall and the same three for ad recognition).

Enduring sport involvement was also collected using the survey and was measured using Beaton et al.'s (2011) nine item construct on a 7-point Likert scale. A mean score was computed for each participant by averaging their responses to the nine items, with a perfect seven indicating the highest level of involvement.

Screen viewing measures. The measure for primary screen viewing was collected using the survey by asking aided and unaided questions about the NFL game.

Sample questions include, “What was the final score?” for unaided and “Select the quarterback of team A from the following options” for aided. Participants were awarded points, with their sum score out of a potential of 11 being a proxy measure for the degree to which they viewed the primary screen.

The measure for second screen viewing was collected through the app and computed by multiplying the total number of anagrams completed by one plus the percentage solved correctly. This composite measure capturing both the number of puzzles completed as well as the number of puzzles completed correctly was chosen, as completing an anagram, even incorrectly, takes time and attention and should be captured. However, solving it correctly arguably takes additional time and attention.

Results

Of the participants, 66.8% identified as male, with 32.6% identifying as female and 0.5% declining to answer. Participants were 18-32, with the average age of 19.9 (SD = 1.5). The majority of participants were White / Caucasian (64.3%), followed by Asian (14.6%), African American (13.5%), and then Hispanic (5.9%).

Table 6 outlines the descriptive statistics pertaining to the measures of interest.

Table 6.
Descriptive Statistics of Focal Variables

Measure	Range	Medium	Mean (SD)
Anagrams completed	1-88	22.0	24.2 (16.1)
Anagrams completed correctly	1-46	11.0	13.5 (9.6)
Second screen viewing (Anagrams completed * 1 + Percentage correct)	2-132	33.0	37.7 (24.5)
Primary screen viewing (Recall on game related questions)	0-11	9.0	8.1 (2.5)
Total Ad Recall	0-9	3.0	3.2 (1.5)
Total Ad Recognition	0-9	6.0	5.5 (2.2)
Enduring involvement with the NFL	1-7	4.1	4.0 (1.5)

Note. SD = standard deviation

A series of linear regressions were used to assess how attention was allocated between screens (H₁), if there was a relationship between second screen usage and ad recall (H₂), and if there was a moderating impact of enduring involvement (H₃). First, a linear regression was run with primary screen viewing as the independent variable and second screen viewing as the dependent variable to see how attention was allocated between screens (H₁). The independent variable of primary screen viewing significantly and negatively predicted second screen viewing ($\beta = -0.259$, $t = -3.623$, $p < .001$) which supported H₁. Next, to consider the potential moderating impact of enduring sport involvement on the relationship between primary and second screen viewing, a regression was conducted with the dependent variable of second screen viewing and the independent variables of primary screen viewing, enduring sport involvement, and their interaction (H₃). The regression considering primary screen viewing ($\beta = -0.080$, $t = -0.389$, $p = 0.698$), enduring sport involvement ($\beta = 0.113$, $t = 0.471$, $p = 0.638$), and their interaction ($\beta = -0.285$, $t = -0.784$, $p = 0.434$) as independent variables indicated that none of them significantly impacted second screen viewing. Thus, H₃ was not supported.

Finally, two separate regressions were run with ad recall and ad recognition as the dependent variables respectively and second screen viewing as the independent variable. For the first regression, second screen viewing was not a significant predictor of total ad recall ($\beta = 0.086$, $t = 1.163$, $p = 0.246$). According to the second regression, second screen viewing was a significant and positive predictor of total ad recognition ($\beta = 0.173$, $t = 2.297$, $p = 0.023$). Therefore, H₂ was partially supported.

Additionally, two one-way repeated measures analysis of variances (ANOVAs) were conducted to evaluate if there were significant differences in ad recall and ad recognition dependent on ad timing (i.e., core action, replay, and commentary; H₄). With respect to ad recall, the results of the ANOVA indicated a significant timing effect; Wilks' Lambda = .847, $F(2, 183) = 16.492$, $p < .001$, $\eta^2 = .153$ (medium effect size) (J. Cohen, 1988). Thus, there was significant evidence to reject the null hypothesis. Follow up comparisons using a Bonferroni adjustment for multiple comparisons indicated a significant pairwise difference between core action and supplemental categories, but not between supplemental categories as evident in Table 7 and Figure 7 below.

Table 7.
Pair-wise Comparison of the Effect of Timing on Ad Recall

Time (I)	Time (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Action	Replay	-0.454	0.085	0.000	-0.660	-0.248
Action	Commentary	-0.373	0.084	0.000	-0.576	-0.170
Replay	Commentary	0.081	0.087	1.000	-0.129	0.291

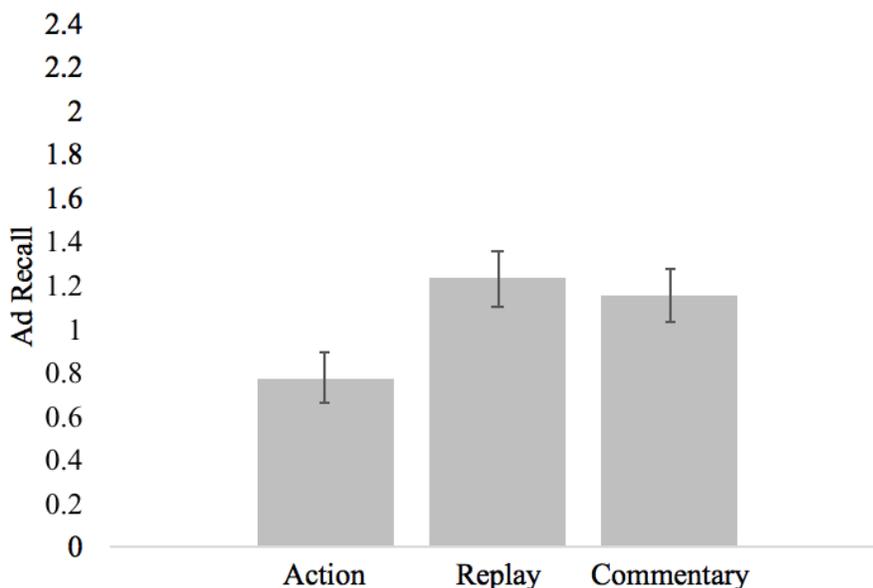


Figure 7. Mean Ad Recall and 95% Confidence Interval by Ad Timing

For ad recognition, the results of the ANOVA again indicated a significant timing effect; Wilks' Lambda = .950, $F(2, 183) = 1,099.906$, $p < .001$, $\eta^2 = .857$ (large effect size) (J. Cohen, 1988). Thus, there was significant evidence to reject the null hypothesis. Follow up comparisons using a Bonferroni adjustment for multiple comparisons indicated a significant pairwise difference between core action and supplemental categories, but not between supplemental categories as evident in Table 8 and Figure 8 below. Therefore, for both ad recall and ad recognition, H₄ was supported.

Table 8.

Pair-wise Comparison of the Effect of Timing on Ad Recognition

Time (I)	Time (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Action	Replay	-0.232	0.082	0.016	-0.431	-0.033
Action	Commentary	-0.195	0.074	0.028	-0.374	-0.016
Replay	Commentary	0.038	0.074	1.000	-0.142	0.218

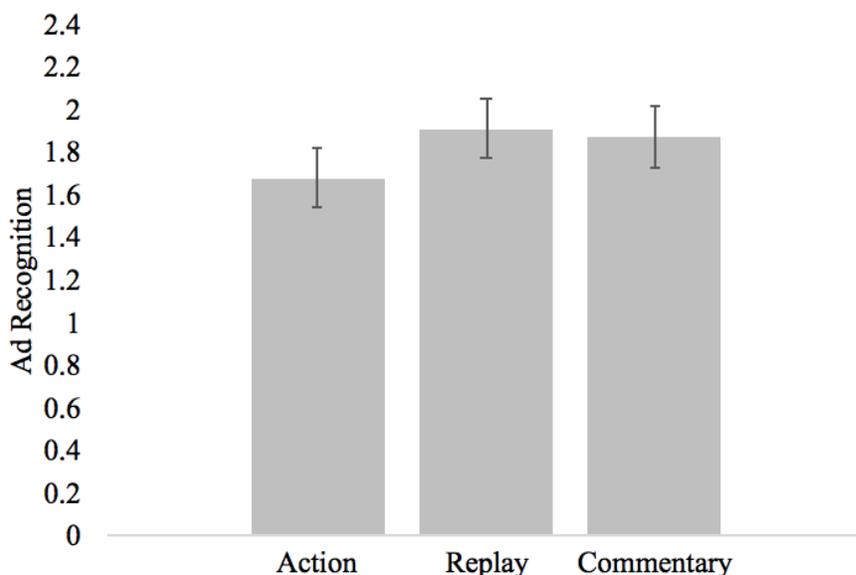


Figure 8. Mean Ad Recognition and 95% Confidence Interval by Ad Timing

Discussion

To extend upon existing multi-screen viewing and advertising scholarship, the current study sought to understand how to optimize the distribution of ads on a second screen. Specifically, it considered the impact of timing on ad memory (i.e., ad recall and ad recognition). Results found that ad memory was conditional upon the TV content; specifically, ad memory was significantly higher for ads that appeared during supplemental content (e.g., replays and commentary) than core action content. This was consistent with existing scholarship that indicates it is important to ensure the user's attention is allocated to the right screen at the right time (Vanattenhoven & Geerts, 2017). Rather than focusing attention consistently on the primary screen, the second screen was integrated during “down” time allowing the consumer to remain engaged with both activities throughout the course of the experiment. The significant effect of ad timing on

ad memory was built upon capacity limitation theory (Lang, 2000; Zhang et al., 2010) and the theory of attention and effort (Kahneman, 1973).

Existing scholarship, specifically capacity limitation theory (Lang, 2000; Zhang et al., 2010) and the theory of attention and effort (Kahneman, 1973), outline the cognitive processing limitations of consumers. For consumers, attention is a finite resource; hence, in a multi-screen viewing environment, any attention allocated to one screen is done so at the expense of the attention allocated to the other screen(s). This was confirmed in the results; specifically, there was an inverse relationship between attention allocated to the primary and second screen. This confirms the notion that humans are limited in their capability to multi-task and effectively process information from multiple sources. Moreover, this extends existing knowledge by confirming the effect on ad memory on the second screen since existing scholarship has been limited to comparing multi-screen and single-screen conditions and ads that appear on the primary screen.

There was a positive relationship between attention allocated to the second screen and ad recognition because the ads appeared on the second screen. This was consistent with prior literature identifying the importance of considering where and when the consumer's attention was allocated to ensure they did not miss important information (Vanattenhoven & Geerts, 2017). Additionally, this notion that there are superior times and locations through which to reach a consumer in multi-screen viewing environments aligns with existing scholarship identifying less detrimental conditions to advertise in multi-screen viewing environments, such as when the two screens' content are congruent (e.g., Angell et al., 2016; Segijn et al., 2017).

Finally, results indicated that enduring sport involvement did not moderate the inverse relationship between the attention allocated to the primary and second screen. This unanticipated finding might be in part due to the prevalence of multi-screen viewing among consumers. For example, sport fans frequently engage in multiscreen behaviour while watching sports, with 40% having used that additional screen to play games (Statista, 2017a). These second screens are often employed by sport consumers to complement their viewing experience, such as by looking up information or managing multiple sport-related identities (e.g., C. Gibbs et al., 2014; Larkin & Fink, 2016). As such, consumers are used to using multiple screens while watching sport content and thus their enduring sport involvement did not alter the attention balance between screens. Alternatively, this could be reflective of the limitations of lab experiments, namely sacrificing realism for control. Participants were encouraged to perform to the best of their abilities on both screens, which may have artificially inflated the level of involvement in the entire experience above and beyond the natural impact of enduring involvement. Consequently, further research is required to understand if the non-significance of involvement is representative of actual behaviour or reflective of the method.

Theoretical Implications

By considering the timing of ads on the second screen, this research contributes theoretically to the proliferation of research considering the impacts of multi-screen viewing on advertising that has occurred in recent years. Consistent with past scholarship this research found evidence of consumers' limited ability to simultaneously process

multiple sources of information and balance attention between sources (Kahneman, 1973; Lang, 2000). However, unlike past scholarship which has focused on comparing single versus multi-screen viewing environments (e.g., Angell et al., 2016; Bellman et al., 2017, 2012; Voorveld, 2011), this research found evidence of cognitive limitations by considering attention allocation between screens; thus extending this line of scholarship.

Moreover, this research focused on advertising on the second, as opposed to the primary, screen. With the understanding that the second screen no longer holds a secondary place to consumers with respect to how their attention is allocated during multi-screen viewing (Brasel & Gips, 2011; Lopez-Gonzalez et al., 2019), this research applied existing knowledge about multi-screens and advertising to the second screen. Consistent with prior scholarship finding contexts in which multi-screen advertising is optimized (e.g., contextual congruence, familiar brands, etc.) (Segijn & Eisend, 2019), timing based on game content was found to impact ad memory. Furthermore, the evidence that ad memory was conditional upon the game content may indicate that consumers have developed media balancing behaviours to cope with multiple sources of media content.

Prior literature suggests that screen substitution may not be a zero-sum game, meaning there are moments during a TV viewing experience that a consumer could “skip” without perceiving that they are missing out on the viewing experience (e.g., not paying attention to TV commercials does not detract from viewing the focal program) (Gantz & Lewis, 2014). Under this mindset, consumers may decide that supplemental game content, such as replays and commentary, are less ‘valuable’ in the game viewing

experience allowing them to divert their attention to the second screen during these times without significantly negatively impacting their viewing experience. Effectively, consumers may be trying to develop coping strategies to help them balance multiple sources of media. In turn, understanding such coping strategies is important so that sport broadcasters and advertisers can optimize content distribution (e.g., minimize less ‘valuable’ content such as supplemental content to avoid attention diverting to the second screen or ensure important focal screen content is distributed during ‘valuable’ content when consumers are dedicating more attention to the focal screen). Overall, this research contributed to the on-going line of inquiry considering multi-screen advertising by considering ads on the second screen and identifying the impact of ad timing.

Managerial Implications

This study has important managerial implications for marketers and advertisers as well as the sport industry in general. This study provides insight with respect to optimizing the distribution of ads on the second screen; specifically, timing matters. To maximize ad memory, ads should appear during supplemental game content (e.g., replays and commentary) rather than core action content. Limited cognitive processing capabilities require consumers to balance their attention between screens, often resulting in consumers using supplemental content as a time to focus on the second screen without missing out on content on the primary screen. In turn, there is an increased likelihood of consumers seeing and remembering content that appeared on the second screen during times that the primary screen featured supplemental content. This can be extended to sport organizations providing sport content through social media during games.

Sport organizations often leverage social media to engage with fans during games, such as providing game updates and posting replays, with fans seeking out and engaging with such content on social media (C. Gibbs et al., 2014). Sport organizations should strategically time posts conditional upon game content to keep consumers engaged with their content. The inverse relationship between attention allocated to the primary and the second screen implies consumers are balancing their attention between these screens. To do so effectively, results indicate consumers allocate attention to the second screen during moments of the game coverage that they perceive as less “valuable” (e.g., supplemental content). Sport organizations want their fans to stay focused on the game, even when fans are allocating attention to the second screen, to ensure continued game viewership. Thus, providing game updates during supplemental moments will maximize the amount of game content consumed by continuing game content seamlessly on the second screen.

This study also has important managerial implications for the sport industry more broadly. For more than the past six decades, media companies have relied heavily on TV advertising revenues (Chong, 2018), with the TV often presumed the primary screen. However, with primary screen advertising being negatively impacted by multi-screen viewing (Segijn & Eisend, 2019), the sport industry can no longer afford to rely heavily on ads during traditional linear programming. Moreover, existing scholarship indicates that the TV is no longer commandeering the full or even primary attention of the consumer, with the second screen becoming increasingly important (Brasel & Gips, 2011; Lopez-Gonzalez et al., 2019). Despite that, mobile device advertising spend

significantly lags behind the amount of time consumers spend on their smartphones (Evans, 2012). The sport industry must catch up to the new media consumption reality and not only embrace but monetize advertising on the second screen. For example, cable networks could sell sponsored social media posts and charge a premium rate to distribute them during optimal times. This study provides a first look at this second screen advertising reality and identifies that timing is important due to the inverse attention allocation between screens. Future research should continue this line of inquiry to further understand how to optimize advertising in the multi-screen viewing environment that is now the reality of sport media consumption.

Limitations and Future Directions

Although this research provides important managerial and theoretical implications, it is not without its limitations. First, this research employed a lab experiment to investigate advertising on a second screen. Lab experiments have numerous advantages, such as their increased level of control with respect to participants' experiences and stimuli; however, they are limited with respect to realism. For example, though an anagram task was consistent with prior literature (e.g., Segijn et al., 2017), it does not necessarily capture consumers' natural second screen usage habits. This could limit generalizability of the conclusions. Therefore, other secondary tasks should be considered including more "natural" tasks compared to an anagram game such as having consumers scroll social media content. Also, future research should consider a field experiment to increase generalizability and address concerns related to realism.

Next, the lack of significant influence of sport involvement runs counter to existing scholarship indicating that sport involvement impacts mediated consumption and cognitive processing. This could be in part because consumers are accustomed to multi-screen viewing and engage in it as a standard behaviour while watching TV. In turn, rather than the level of enduring sport involvement moderating the attention allocation between screens, consumers may have simply employed their typical media behaviours. However, the insignificance of sport involvement could also be in part due to the limitations of lab experiments. Consumers were instructed to pay attention to both screens, which could have altered how they allocated their attention between screens. Consequently, future research is necessary to confirm or disprove the insignificance of sport involvement in this study as well as identify other potential explanations for its insignificance to understand any limitations or boundaries around its application.

This research identified a potential coping strategy that consumers could use to help balance tasks in a multi-screen viewing environment; namely, diverting attention to the secondary task during supplemental content and focusing on the primary screen during core action content. Future research should confirm if this is indeed an often used and effective coping strategy. For example, eye tracking could be used to confirm when consumers are allocating attention to a given screen with follow-up interviews exploring why consumers divert their attention during specific types of content. Moreover, future research could look to identify other coping strategies that consumers use in multi-screen viewing environments to identify behavioural patterns. In turn, sport broadcasters and

advertisers could redesign the distribution of content based on consumers' multi-screen viewing behaviours.

Finally, this research focused on one aspect of the distribution of ads on the second screen, specifically timing, and one specific explanation for the findings, limited cognitive processing. Other contextual characteristics could also impact the effectiveness of advertising such as ad congruence, repeat exposure to ads, and the engagement level of the ad (i.e., video versus picture). Future research should investigate elements of ads to identify characteristics that can increase advertising effectiveness in multi-screen environments. Moreover, other explanations and mitigating factors affecting ad memory, such as program enjoyment and activity engagement, should be considered in addition to cognitive processing.

Conclusion

This research provides insight that can be used to optimize digital advertising; specifically, knowledge organizations can leverage to increase the effectiveness of advertising in multi-screen viewing environments. Theoretically, this research improves our understanding of multi-screen consumption, specifically the importance of timing as well as the limited cognitive processing capability of consumers. Results built on existing research considering advertising in multi-screen environments by considering ads occurring on the second screen and by considering the timing of ads. Moreover, considering the timing of the ad introduced a new contextual characteristic in which the effects of multi-screen viewing may be attenuated. The results build on existing knowledge of contextual elements affecting the degree to which multi-screen viewing

negatively impacts advertising (e.g., Angell et al., 2016; Segijn et al., 2017).

Managerially, the results provide industry professionals with an understanding of the role of timing in multi-screening advertising, while underscoring the need to consider second screens as important advertising channels. In conclusion, multi-screen viewing provides organizations with additional advertising platforms and thus, an increasingly large number of advertising opportunities. This research provides insight into the efficacy of advertising through pop-up notifications on the second screen by considering the relationships between primary and second screen usage, enduring sport involvement, and ad memory with respect to ad timing.

CHAPTER 5

CONCLUSION

Advancements in technology are fundamentally altering marketing and communication, resulting in marketers seeking guidance on navigating the digital marketing landscape. In turn, this dissertation seeks to provide such guidance through its examination of digital sport experiences across a collection of three essays. These three essays capture emergent experiences facilitated by new technologies, specifically social media usage and multi-screen viewing, through a consumer behaviour lens. In doing so, these essays shed light upon the digital side of sport experiences and provide both theoretical and managerial insights individually as well as collectively. The implications for each essay as well as the overall implications derived by meta-inferences across the essays are discussed in this chapter.

Essay One critically examined the application and appropriateness of U&G Theory in existing sport management social media scholarship by examining what consumers do with sport social media. Results indicated the importance of considering a more robust approach to social media usage compared to the motivation-centric one traditionally employed in scholarship using U&G Theory. Moreover, results indicated that not all media selection and consumption is as purposeful as outlined in U&G Theory, rather it can be rather habitual and routine with consumers defaulting to engrained behaviours and platform preferences. Consequently, an augmentation was proposed to U&G Theory to capture the range in purposefulness in how consumers used social media.

Moreover, a core set of motivations of social media consumption, namely information gathering, entertainment, boredom, and connectivity, was identified and captured in the augmented U&G Theory proposed. Theoretically, these results (i) informed a parsimonious list of motivations that future studies can employ to evolve social media scholarship beyond motivational identification and (ii) acknowledged the habitual nature of social media users, challenging the near universal application of U&G Theory and suggesting a less purposeful nature among social media users. Managerially, these results suggest that sport organizations should ensure timely release of information through social media as consumers used it as their primary news source. These results identified the passive nature of consumers, with limited engagement (i.e., liking, commenting, or sharing posts) or content (co-)creation, indicating the challenges in fostering engagement.

Essay Two focused on understanding how the elements of the digital sport consumption context impacted social media usage behaviours. It did so by examining the objective factors or determinants that drove consumers to engage with posts. Engagement is an important metric for sport organizations not only because it provides an indication of post reception, but also because it can increase the viral reach of a post, resulting in increased brand exposure for the organization. However, as identified in Essay One, sport consumers are reluctant to like, comment, or share a post, instead preferring to lurk on social media. Thus, Essay Two sought the determinants of post engagement by examining Facebook and Twitter posts of a Division I NCAA football team using machine learning techniques. Results indicated that on Facebook team performance (i.e., win percentage) and page reach (i.e., page weekly total reach and impressions as well as

total page followers) were important indicators of post engagement, while team performance and time since last post were important for Twitter posts. Theoretically, these results challenged the existing conceptualization of the SX framework, specifically its oversimplification of the sport experience to include only one context and one organization. An updated version of the SX framework, SX framework v2.0, was proposed to capture and emphasize the dynamic and complex nature of the sport consumption context. Managerially, these results indicate that the determinants driving post engagement are platform specific, suggesting different social media strategies should be derived for each platform.

Collectively, both Essays One and Two examined social media usage, with an emphasis on subjective and objective factors, respectively. Considered in tandem, additional inferences can be drawn from the results of the two essays due to the synergies between the findings. For example, Essay One identified the importance of information seeking as a motivation for social media usage, which aligned with a determinant of engagement for Twitter, namely time between posts. There was a higher level of engagement for Twitter posts appearing close together, which was done to convey information and game updates, which is expected if consumers are using social media for information updates. Moreover, both essays identified differences in platforms for consumers indicating that social media should not be treated uniformly. In Essay One, Facebook was used less for sport-related content and seen more as a platform to stay connected with friends and family members resulting in limited engagement with content. Conversely, Twitter was used more for sport-related content, often considered the way to

get fast-breaking news updates. This is aligned with the findings of Essay Two, specifically that the platforms had different relevance levels for determinants. Managerially, the findings collectively indicate the importance of social media as an information source while also encouraging sport organizations to treat platforms distinctly and prioritizing Twitter for news updates. The findings call into question why a sport organization such as the one featured in Essay Two prioritizes Facebook in their social media strategy when it was a less used social media platform overall, and when used it was often for personal rather than sport-related content.

Finally, Essay Three moved beyond social media to another important digital behaviour, multi-screen viewing. Like social media, the rise and popularity of multi-screen viewing has challenged existing marketing and communication norms. With respect to multi-screen viewing, this behaviour has made existing advertising during sport content less effective due to the limited cognitive processing capabilities of consumers. However, it has also opened up a new channel through which sport organizations can reach consumers and monetize advertising, specifically the second screen. Results indicated that the timing of the ad on the second screen impacts ad memory, with higher ad memory occurring during supplemental game content due to limited cognitive processing capabilities. Theoretically this confirms existing scholarship on cognitive processing on the second, as opposed to primary, screen, while managerially underscoring the importance of strategic, timely delivery of content.

Effectively, this collection three essays focused on examining digital marketing and communication and in turn, provided sport organizations with the insights necessary

to optimize their digital presences. However, it also serves as an important foundation for future scholarship considering digital sport experiences. For example, a concise list of motivations derived in Essay One allows social media scholarship to evolve beyond identifying typologies of motivations for every possible context. Moreover, the suggestion of a more habitual nature to social media use challenges the near universal application of U&G Theory in existing scholarship while underscoring the importance of considering this new perspective. Consequently, this series of essays not only provides important theoretical and managerial implications with respect to digital media consumption, but also provides a foundation for digital, consumer behaviour research related to growing areas of inquiry with respect to the impacts of technology. In turn, the individual and collective findings of this dissertation set up research streams considering digital marketing, exploring the optimization and usage of mediated tools and techniques by organizations.

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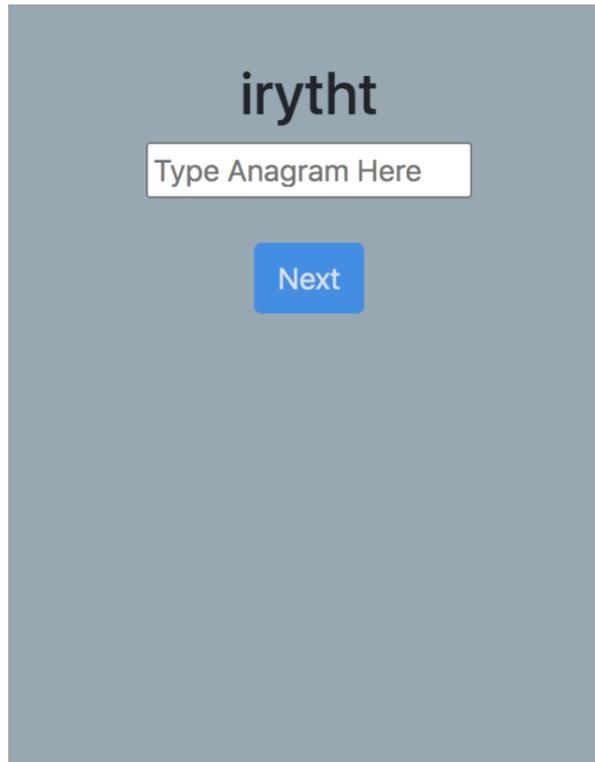
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APPENDIX A

SCREEN SHOT OF CUSTOM APP



APPENDIX B

ADS

