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AI's Influence in the Sports Media Industry

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Abstract

Every year sports captivate and gather billions worldwide, transcending borders, cultures, and generations. The sports media market is projected to be worth \$61 billion in 2024, growing more than 29% over the past 5 years. New technologies, like AI, could play into further growth in the future. AI will not only impact the way the sports media industry works today, but brings with it ethical concerns and revolutionary change to the future of the sports media industry.

Introduction

Every year, sports captivates and gathers billions worldwide, transcending borders, cultures, and generations. From grassroot levels to professional teams, the sports industry remains nearly unrivaled. When running successfully and without interrupts, sports brings billions of dollars to its investors and proves to be a continually growing market. Fueled by dramatic athletic performances and dedicated fans, the sports media rights market alone is projected to be worth nearly \$61 billion in 2024, growing more than 29% over the past five years (Sportcal.com).

With this growth market, sports teams and organizations are always looking for ways to continue to engage fans and see a high return on investment within the industry. Therefore, it should be no surprise that with the development of new technologies, such as artificial intelligence, that sports media departments are interested in how it can benefit their teams.

Once only a part of science fiction, AI has swiftly transformed into a technological force. There was a period of time where AI wouldn't have been considered applicable to the sports media industry, but as shown in recent years, artificial intelligence (referred to in this thesis as AI) has become integrated into various industries, including the sports media industry, challenging the traditional ways tasks are performed and blurring lines between spectator and participant. From data analyzation to content creation and more, the technology has the power to potentially change the way the industry operates. The intersection of AI and sports media provides the opportunity to change how fans interact with sports, and that realization becomes more real each day with the continued development of the technology.

However, even with the potential and promises of AI, there remain questions and uncertainty as to what its future could be within the sports media industry. As AI becomes more integrated within the industry, there are ongoing calls to question concerns regarding job security and ethical implications.

In light of these considerations, this thesis explores the multifaceted applications of AI in sports media. By exploring its current uses, future prospects, and ethical implications, this study seeks to provide a clear understanding of AI's impact on the sports media industry.

Literature Review

Section 1: History of Artificial Intelligence

Subsection A: Concept to Reality

In the 1950s, early AI concepts began to spread across scientific communities, inspired by the work of individuals like Alan Turing, who is known for his work exploring the notion of machines capable of reasoning and problem-solving on a human level. Turing's paper "Computing Machinery and Intelligence" laid the groundwork for early AI research. This time period also saw the development of early AI program like the Logic Theorist, culminating in the Dartmouth Conference of 1956, where the term "artificial intelligence" was officially coined, bringing to light scientific inquiry into the subject.

From the late 1950s to the mid-1970s, AI experienced a period of rapid advancement, fueled by growing computer capabilities and government funding. Programs such as the General Problem Solver and ELIZA showcased the potential of AI's problem solving and language processing, furthering expectations of the technology's development within the scientific

community. Despite initial optimism, in the following decades, AI development faced challenges with computational limitations and slows in funding that slowed the research process.

The 1980s followed with a resurgence in the interest of AI as technology continued to advance. During this time, one notable development came from Japan's Fifth Generation Computer Product, which revolutionized AI through logic programming and expert system design. With the 1990s and 2000s, AI started to achieve significant milestones from IBM's Deep Blue defeating chess champion Garry Kasparov and other breakthroughs in speech recognition. These achievements once again inspired a resurgence in AI development as computer storage and processing power grew, overcoming previous limitations.

Today, AI stands at the forefront of technological innovation, propelled forward by big data and advancements in machine learning algorithms. Emerging trends, such as AI language processing offer new possibilities for human and computer interaction and communication. However, AI technology is not at its apex. Still to come are developments in general intelligence, with concerns for ethical and societal implications. As AI becomes more integrated with various aspects of our lives, there is a growing need for discussions on policy and ethics, balancing the potential of AI with ethical implications and societal impacts.

Subsection B: Types of AI

AI encompasses the large technological development relating to computer systems capable of performing tasks similar to human cognitive function. AI can be broadly categorized into weak AI, which is limited to specific tasks and pre-defined constraints, and strong AI, which

emulates human learning and thinking. While there have been developments made towards strong AI, the technology remains largely theoretical and where developers hope to achieve.

AI functions through various techniques. Machine learning utilized statistical methods to improve its task performance over time; deep learning, a subset of machine learning, mimics the human brain structure by processing data through neural networks. Natural language processing allows AI to interpret and generate human language, while computer vision processes visual media to extract insights. Further categorizations of AI include, reactive machines, limited memory systems, theory of mind, and self-aware AI, each with its own capabilities and levels of development.

AI tools include a range of technological advancements that may not be immediately recognized as AI, such as smart assistants like Alexa and Siri and filters for social media platforms. Further developments of AI, specific to this research, include content and visual image generation, communications based AI trained to interpret and respond, and other assistive tools. Tools such as these come from companies capitalizing on the technological development, opening AI's use to industries and the general public. This list of companies includes, and is not limited to, OpenAI's ChatGPT, Microsoft's CoPilot, Google, and Adobe, which are relevant to the sports media industry. As AI evolves, there has been scrutiny over the ability to ensure AI systems are safe, transparent, and non-discriminatory as legal systems struggle to keep up with the quickly developing technology. The future of AI promises further advancements in machine learning, generate adversarial networks, and strong AI.

Section 2: Artificial Intelligence in Communications Industry

AI has become a valuable asset in the communications industry, such as with social media, assisting in content creation, analysis, engagement, and more. AI-powered tools, such as StoryLab.ai's Content Idea Generator and Social Media Caption Generation, allowing marketers to generate content seamlessly with less time consumption. Besides content creation and development, AI can analyze large volumes of data to help identify trends, predict behavior, and optimize ROI. AI is also essential to the communications industry through AI-driven chatbots and automated messaging systems that enhance customer engagement on a timely matter.

Looking ahead, the role of AI in the communications industry seems likely to continue to expand. Further advancements in AI's natural language processing, predictive analytics, and personalization capabilities will contribute to its important assistive technologies with the communications, and more specifically, the sports media industry.

Section 3: History of Sports Media

In the twenty-first century, the relationship between sports and media is deeply intertwined, presented as an integration of the two in sports media departments. Today, most people around the world encounter sports media in various forms including print, broadcast, and online. However, this relationship has not always existed in the same context, as the history of sports and the media is riddled with competition and cooperation, reflecting a struggle between sports and spectatorship.

The emergence of modern sports in eighteenth-century Britain marked the beginning of a relationship between sports and the media as sports transitioned from amateurism to a professional level. Print news media began covering sports events as part of daily life and

promotion of the events led to early advertising and sponsorships. This exchange between sports and the media facilitated the popularization and commercialization of sports that has grown into what we see today. (communication.iresearchnet)

Until the mid-twentieth century, sports and media were constrained by time and location. Early inventions like radio and television broadcast revolutionized sports media, but relied on fans experiencing the games live, otherwise learning about the games from print newspapers or news clips. The creation of ESPN in 1979 opened up the industries to further economic development and fan engagement as fans could experience more insight into their favorite sports. But perhaps the most significant technological development in sports and media came from the invention of the internet and social media, which in the early 2010s brought about sports teams and organizations bringing media in-house and creating sports media based departments.

While previously at the mercy of traditional media outlets, social media and digital technology brought about the ability for teams and organizations to control their narrative. Teams previously had no control over the message of their teams, players, organizations, etc. When they wanted news to be shared with fans, they presented the media with a press release, relying on out-of-house media organizations to share the story. With no guarantee that the media would share their story, sports organizations had little opportunity to build their brand.

The popularized use of social media and digital media allowed for sports teams and organizations to share any updates directly to their fans, bringing about a new age in sports and changing the fan experience. Whereas in the past fans might not often hear news of internal decisions within the team, social media allowed fans to follow almost every action made by a

team. Given the ability to share the news directly to their fans, there was a renaissance in the fan experience. Fans were now able to not only get direct access to their teams but were also able to experience their favorite sports on demand. This realization forever changed the sports media industry as teams quickly adopted sports media departments, bringing the media into their organization.

Today, these in-house sports media departments are tasked with creating content and experiences to build fan engagement. This overview demonstrates the media's role in popularizing and commercializing sports has significantly impacted global culture, shaping people's experiences in the sports industry.

The continued development of technology, such as AI will continue to impact the way sports media industries interact and engage with fans. Therefore, with the use of artificial intelligence in sports media as a base for this research, the following research questions are proposed:

RQ₁: How is AI currently being used within the sports media industry?

RQ₂: What (if any) ethical concerns do professionals have with the use of AI within the sports media industry?

RQ₃: How will AI be used in the future in the sports media industry?

Methods

Following initial research, an online interview was conducted to reach professionals within the sports media industry across the United States from college to professional sports

leagues. Eligible professionals were located through two methods: (1) the researcher's own industry connections and (2) an online search of professionals across multiple of levels and leagues in the United States.

Current email addresses for the sports media professional were located by online search, direct contact via LinkedIn and Instagram, or by shared contact information by a second-party peer. All emails were added to a potential participant list, while those for whom email addresses could not be acquired were removed from consideration. From there, 32 sports professionals were contacted, of which 8 were interviewed because they agreed to take part in the research.

After confirming their role as a sports media professional, participants were asked about their roles within their organization, if they had used AI for their role, any ethical concerns they may have had with the technology, their prediction for future use of AI within the sports media industry, and how AI may have or not have changed their roles. They were then asked what they would want AI to help them achieve within their roles. The interview concluded with an opportunity for the participant to mention anything related to the topic that may not have been addressed in previous questions and answers.

Interviews with participants took place via phone call with the average call lasting approximately 13 minutes. The longest call was 18:05 and the shortest was 4:48.

Results

Section 1: Sample Description

Of the 8 interviewed, 4 were men (50%) and 4 were women (50%). Additionally, 2 served as collegiate level sports media professionals, while the other 6 worked within

professional level sports teams. There was a range of 5 different sports. Teams included the Carolina Panthers (NFL), Connecticut Suns (WNBA), Charlotte FC (MLS), Carolina Hurricanes (NHL), South Carolina Gamecock Athletics (NCAA), South Carolina Gamecock Football (NCAA football), Columbia Fireflies (minor league baseball), and the Chicago Red Stars (NWSL). These 8 had various titles and experience levels that all fell within the sports media industry: Digital Video Manager, Content Specialist, Social Media Coordinator, Vice President of Marketing and Brand Strategy, Video Intern, Director of Graphic Design, Promotions and Fan Engagement Manager, and Manager of Photography and Videography. Listed below are the teams and the positions of professionals interviewed.

Carolina Panthers	Digital Video Manager
Connecticut Suns	Content Specialist
Charlotte FC	Social Media Coordinator
Carolina Hurricanes	VP of Marketing and Brand Strategy
Gamecock Athletics	Video Intern
Gamecock Football	Director of Graphic Design
Columbia Fireflies	Promotions and Fan Engagement Manager
Chicago Red Stars	Team Photographer

Section 2: How are these professionals using AI: “It’s a tool”

Research question one asked how each team was using AI in their sports media departments. Similar answers were given repeatedly and could be summarized by the common conclusion by multiple participants: “it’s a tool.”

When it comes to the newly developing concept of AI, most participants noted that they are just beginning to explore the technology. However, throughout the various requirements of the roles, almost all of the participants are beginning to use AI in their sports media roles as a tool. One participant described their use of AI as a “stepping off point,” which was a highly shared feeling among participants.

The participants of this study essentially fall into three categories for their use AI: creative, copywriting, and chatbot. Those using AI for creative assistance tended to use Adobe’s AI features to improve their photographs, videos, and graphics content. Whether that be using AI for a “quick stock photo” as one participant described or “content when the graphics team is unavailable” as another stated, it is clear that among those content creation roles AI can be a quick tool to save time. Examples of this creative aspect comes from teams using AI to edit stadium lights that create a glare in photographs or using AI to fill the empty “awkward” gap in the stadium when the band takes to the field at halftime. Others also noted how AI, while still faulty in this instance, helped them collect data on and label their photos, which otherwise would be a time consuming process. For those using AI for copywriting, they feel it can be helpful in word choice and inspiration for captions for social media. These participants mainly noted OpenAI’s ChatGPT as their chosen AI platform to visit for these needs. Finally, one participant

noted that AI as a chatbot was used to connect with fans visiting their website and had the potential to create another source of fan engagement.

Despite the various uses of AI between the sports media, they all seemed to agree that AI is a shared tool in their roles. They are willing to use AI for the purpose of saving time on otherwise tedious tasks. “It takes less time and dedication to crank [AI] out,” as one participant described. Further, these participants shared the statement shared by one participant: “You always want to respect the people side of the business.” This statement shows there is a shared notion between multiple sports teams that they are only looking at AI as a tool, useful for improving each role within sports media.

Section 3: Ethical Concerns

Research question two asked participants if they held ethical concerns while using AI. While nearly all participants noted there should be some concern regarding the new technology, most noted that they do not feel that this is any ethical concern at this time with using AI’s benefits inside of their roles. One participation stated, “this is not something to freak out about.” Similarly, another stated that “we’re propaganda, not journalism” because of their roles as in-house media departments. However, it should be noted that there are shared concerns among participants for AI if people use it to distort images intentionally, but in their departments in the sports media industry they feel comfortable because of the human oversight.

In a more general sense, there are some concerns among participants surrounding AI. One participant pointed out that there is an ethical concern for using AI as a full creative because it gets its inspiration for AI created images from already existing data, meaning it uses artists’

work to create images. Further, there is some shared concern for the future development of AI as the technology becomes more advanced. As one participant put it, “AI shouldn’t replace what artists do.” But overall, nearly participants agreed that even as AI continues to evolve that there will not be a large risk in job security as they feel that the creative process needs a person’s oversight. However, one participant noted that as AI continues to develop there might be less of a need for lower role tedious jobs, such as transcription work, as AI is already efficient in that task. One participant’s statement wraps up a shared feeling among all participants: “There is never a good replacement for a human brain when it comes to creativity and innovation.”

Section 4: Potential Impact

Research question three asked participants how they believed AI could be used successfully in the industry in the future. As all participants shared some confidence in their job security as AI develops, they felt that the biggest change would impact their role descriptions. With AI being a potentially helpful tool that will continue to develop in its abilities to assist in different industries, the participants share the belief that the future will hold further collaboration between machine and humanity. Most shared the view that although AI is in the early stages of making its way through the industry, that they’ve already been able to capitalize on its early developments to assist in their jobs and believe this process will only continue in the future. When asked what they would like to see from AI in the future, participants tended to mention the more tedious and time consuming parts of their roles, such as labeling and tagging photographs and other content, timely data collection and analyzation, and influencing the online requirements of the industry. As described by one participant, they envision the future as the

creative team as the architect and AI as the executor of projects within the sports media industry. No matter where AI continues to develop in the future, participants hope that it will continue to improve in accuracy to assist them more reliably in their tasks.

Discussion

Section 1: “It’s a tool”

Proven by participants experience with it, AI is a tool in its early stages just beginning to impact the sports media industry. As this technology continues to develop, there is a strong possibility that we will see AI impact the sports media industry similar to the digital age with the internet and social media that brought the media in-house for the first time and allowed sports teams and organizations to control their narratives. Likewise, AI will assist in the roles of sports media professionals, revolutionizing their tasks and roles, allowing for further creative input by these departments into other projects. While in no way has AI reached its full potential, the future of AI will forever change the way sports media departments create fan engagement experiences. Already, from the use of virtual relative, a similar new technology, fans are experiencing their favorite sports in a way never achievable before. AI will allow for sports media departments to continue to create new exciting experiences for fans, bringing a new appreciation to sports across all levels.

Section 2: “Dehumanizing the creative process”

Further, the AI’s current and potential use within the sports media industry does not mean there will be a lack of humanity involved in the creative process. The opposite is more likely. As

mentioned by one of the participants of this study, sports media professionals will serve as the architects while AI serves as the executor, allowing for a quicker, collaborative process in all things sports media. What the future developments of AI will bring are uncertain. However, from what we can see now, AI will continue to analyze large amounts of data, and likely learn at a quicker pace, becoming more integrated with our other uses of technology.

Section 3: “Ethics - necessary or not with how AI is currently utilized”

No matter the future directs AI take, ethical considerations will likely be at the center of societal discussions. Within the sports media industry, there is not too much concern surrounding whether AI will be accepted. It is viewed nearly as a fact that AI will continue to ingrate with technology currently used and will be a useful tool within the industry. However, there is concern surrounding AI taking value away from the creative roles in the industry. While at this time AI does not have the capabilities to fully operate at the same level as a creative within sports media, the technology will only grow further. Despite this, there does not seem to be an outcry of concern, showing how those already utilizing the technology believe it will serve the industry as a tool, rather than a replacement.

Further, there is concern for mistakes that come from a human-programmed AI or AI taking liberty with inspiration from human-created content. Likely, as the technology continues to evolve there will be extensive conversations surrounding this topic, but at this time within the sports media industry there is no immediate need for concern as AI does not seem to be used

without human oversight and is utilized as an assistive tool, rather than replacing the creative human-made work.

Section 4: Future Impact

In the future, AI will continue to develop and become more reliable for sports media departments. It will become a collaborative tool, allowing for professionals to save time on the tedious tasks, without diverting their roles away from a creative process. As it develops and becomes more integrated within standard technology, sports media departments will most likely have to adapt and will need training to utilize AI to its full potential within the industry. Overall, AI has the potential to revolutionize the sports media industry's interaction with fans overtime, but in the meantime it will serve as a early stages tool to saving time within sports media professionals' roles.

Section 5: Limitations and Future Research

The content of this research is limited by the continuous development and growth of the abilities of AI. Research for this thesis concluded in March 2024 which is noteworthy because AI developments are happening rapidly. Those conducting future research into this field may wish to conduct updated research into the technology. In addition, this thesis did not consider participants overtime exposure to AI and similar new technologies. Future research may consider sports media professionals' experience and exposure to AI as it continues to develop.

Conclusion

In conclusion, AI is still in its early stages within the sports media industry, but its impact is already beginning to be felt. As the technology evolves, there is strong chance that AI will transform the way the industry operates, similar to the digital age bringing about in-house media for sports teams. While concerns about the dehumanization of the creative process persist, it's more probable that AI will serve as a collaborative tool, enhancing the efficiency of sports media professionals, rather than replacing them within the industry. Likewise, ethical considerations will continue to surround AI in its development, but the sports media industry will continue to accept it as a tool in its creative processes. Looking ahead, AI's continued development will require professionals to adapt to its new technological advancements in what it can do to support the roles within the sports media industry, but will potentially revolutionize fan engagement experiences.

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