

### Introduction

Baseball had been marketed as "America's national pastime," and among the ranks of apple pie and the 4th of July in all things good and pure about America. For decades, baseball dominated the sports landscape in the US, with die-hard fans following every pitch and play with rapt attention. However, in recent years, baseball has started to become an afterthought for American sports fans. The MLB is a joke in comparison with the other major four sports in the US. Baseball fans are dwindling because of the game's slow pace, arcane blackout policies, and poorly marketing stars.

This past season, MLB attendance hit a 37-year low. This didn't just result in fewer fans at ballparks, but also viewership was down 12% compared to 2019 [1]. Coming off a lockout this 2021-22 offseason has once again put baseball in the bad graces of the public with owners and players being portrayed as stubborn. Baseball fans have been long enraged with the MLB's molasses-like approach to changing their league towards advancement and out of the dark ages. In the social-media age, baseball is in the middle of a crisis given the fierce competition for viewers attention.

To address this problem, many in the baseball industry have been searching for ways to enhance the viewing experience for fans. One such solution is to bring back the beloved voices of the past to add more color and excitement to the broadcasts.

So many die-hard baseball fans were introduced to the beauty of baseball by Harry Caray's voice. Harry Caray was a legendary broadcaster whose career spanned over 50 years and included stints with the St. Louis Cardinals, Oakland Athletics, and the White Sox. However, he is most famously known for his time as the Cubs announcer on WGN-TV. Harry's colorful calls and unwavering loyalty to his affiliated team, coupled with his willingness to tell the truth, endeared him to fans and established him as one of the best technical baseball announcers in the history of the sport.

However, towards the end of his career, Harry became more known for his mispronunciations of players' names and his infamous Seventh Inning Stretch performances. Despite this, his popularity only grew with the power of the superstation behind him, captivating a whole new generation of fans, even during lackluster games.

In light of the current state of baseball, this academic project aims to explore whether AI technology can save baseball broadcast by analyzing the impact of Harry Caray's legendary career as a baseball announcer. Through analyzing Harry Caray's career, this project seeks to determine if AI technology can replicate the unique entertainment ability and captivating style of one of the most beloved baseball announcers of all time and enhance the viewing experience for fans of the sport.

The project will use state-of-the-art AI technology to generate samples of Harry Caray's voice, coupled with text that simulates his broadcasting style. These samples will be compared against the original recordings of Harry Caray's broadcasts to determine how closely they match his distinctive voice and style. Additionally, the project will explore the potential benefits of using AI-generated broadcasts to attract new fans to the sport and bring back lapsed fans who may have lost interest due to the slow pace of the game and other factors. The future of baseball broadcasting is uncertain, but AI technology may offer a promising solution.

# Holy Cow! Can AI bring back America's Pastime?

By Teddy Kamin with help from Jon Chun and Katherine Elkins Kenyon College IPHS

### Methodology

For this senior seminar project, I have utilized two main methods: Introduction to Harry Caray and AI-generated content. The first step in my methodology involved researching Harry Caray's life and career by reading selected articles. This helped me gain a comprehensive understanding of his style of commentary and the unique features that made him one of the most beloved baseball announcers of all time. Next, I researched the history of AI-generated content and its use in the field of broadcasting. This allowed me to explore the potential of AI technology to revolutionize the way we consume and engage with sports media.

To analyze Harry Caray's style of commentary, I studied the language and vocabulary used by Caray during his broadcasts. I identified key features such as his colorful calls, unwavering loyalty to his affiliated team, and willingness to tell the truth, even if it was unpopular.

To test Chat GPT's ability to generate new commentary in Harry Caray's style, I developed a dataset of baseball commentary and input it into the system. I then used the key features of Harry Caray identified earlier to ensure that Chat GPT was replicating his style

accurately and generating engaging commentary. In addition to analyzing past baseball games, I also used the AI play-

by-play commentator to analyze current games and evaluate the quality of the commentary. This helped me identify areas for improvement and fine-tune the system.

Finally, to create a more authentic Harry Caray experience, I found clips of his audio and edited them for varying levels of voice tone and drunkenness. I then input these clips into Eleven Labs' voice AI textto-voice cloning services, which allowed me to create a more realistic and immersive Harry Caray experience.

### What is AI Voice Generation?

In the context of my senior seminar project about Harry Caray and AIgenerated content, I have utilized Eleven Labs' text-to-voice AI cloning services. This technology allows me to create a more authentic Harry Caray experience by replicating his voice using artificial intelligence.

But what exactly is AI voice generation? Simply put, it is a process of using artificial intelligence to generate human-like speech. The technology uses deep learning algorithms to analyze and understand patterns in speech and then synthesizes new speech using those patterns. AI voice generation falls within the broader field of digital humanities, which combines traditional humanities research with digital tools and techniques. In this project, AI voice generation is used to enhance the viewing experience of baseball fans by replicating the style and voice of Harry Caray, a legendary baseball announcer. By using Eleven Labs' text-to-voice AI cloning services, I was able to input clips of Harry Caray's audio and create new, synthesized clips that sound like him. This technology allows me to create a more immersive experience for fans, bringing Harry Caray's voice back to life and adding a new layer of depth to the broadcast. Overall, AI voice generation is a powerful tool for enhancing digital humanities research and adding new dimensions to the viewing experience of fans. In this project, it allows me to explore the potential of AI technology to save baseball broadcast by creating a more engaging and authentic experience for fans.

# **Metrics**

Authenticity - The AI should sound like Harry Caray, with a similar cadence, tone, and delivery. The authenticity of the voice should be judged by listeners who are familiar with Harry Caray's voice.

Play-by-Play Commentary - The AI should be able to provide play-by-play commentary of the game that is accurate, insightful, and entertaining. It should be able to describe the action on the field in a way that keeps the listener engaged.

**Insightful Commentary** - The AI should be able to provide insightful commentary about the game, the players, and the strategies employed by the teams. It should be able to offer analysis and commentary that goes beyond the obvious and provides new insights into the game.

**Humor** - Like Harry Caray, the AI should be able to inject humor into its commentary, making the game more entertaining for listeners. Its humor should be witty and not forced.

Knowledge of the Game - The AI should have a deep knowledge of baseball, including the rules, the players, and the history of the game. It should be able to provide context for the current game and relate it to the broader history of baseball.

Fandom - The AI could potentially be programmed to support a specific team or have a preference for a certain team, like Harry Caray did with the Chicago Cubs. This could add an additional level of engagement for listeners who support that team.

# Results

GOOGLE DRIVE FOLDER WITH AI GENERATED HARRY CARAY



Harry Caray's ability to make the lovable losers that are the Chicago Cubs into must see TV is a sign of how much of a legendary broadcaster he was. His commentary is a grand slam helping show audiences the best of baseball.

Personalities like Harry Caray are the perfect gateway for fans to learn to love baseball. Chat GPT trained on Harry Caray might not be the same level of entertaining without the image of Caray with his flat screen to size glasses, but it is still a hit out of the park

delivery.

In conclusion, while there are some limitations and challenges with the AI-generated text of Harry Caray, it has the potential to be an interesting and engaging concept for modern-day viewers. The ability to pair the voice with the text of former broadcasters with the plays of today could offer a unique perspective and add a new dimension to the experience of watching baseball games. With further development and refinement, it's possible that AI-generated sports commentary could become a new form of entertainment that appeals to a wide audience of sports fans.

# **Sources/Acknowledgements**

[1] <u>https://www.youtube.com/watch?v=IbSfJLF\_0-8</u> <u> https://chat.openai.com/</u> https://beta.elevenlabs.io/

am immensely grateful to Professors Chun and Elkins for their exceptional teaching and support during my senior seminar project. I also want to express my appreciation to Professors Chun and Elkins for introducing us to cutting-edge technologies such as Chat GPT. It takes great professors to broaden their students' horizons and equipping them with the skills and knowledge we need to succeed in the future. Thank you for making this seminar a truly enriching experience.



### Conclusion

In the samples of generated text for Harry Caray, the first metric I was interested in seeing was whether the AI model would be able to capture the jovial and entertaining personality that Harry Caray was known for. In the first sample, the generated text did just that, painting a vivid picture of the game and players, while also adding in humorous tangents and stats. The use of phrases like "Holy cow!" and "Cubs win! Cubs win!" brought Harry Caray's trademark excitement to the text.

In the second sample, the AI model was able to accurately describe a key play in the game, just like Harry Caray would have done. The text was full of stats and information about the players involved, but also had a light-hearted and fun tone. Harry Caray was known for his ability to turn even the most mundane moments of a game into something entertaining, and the AI model did just that.

In the third sample, the generated text included a funny anecdote about a fan in the front row of the game. Harry Caray was known for his ability to connect with fans and make them feel like they were a part of the game, and the AI model captured that spirit perfectly. The text was full of jokes and witty remarks, making it a fun read for Cubs fans listening to the game on the radio.

In the final positive sample, the AI model accurately described a bad umpire call, just like Harry Caray would have done. The use of descriptive words and phrases brought the play to life, making it easy for listeners to imagine what was happening on the field. Harry Caray was known for his ability to keep fans engaged with his commentary, and the AI model did a great job of doing the same in this sample.

While the samples of generated Harry Caray text are impressive in their ability to emulate the style and tone of Harry Caray, there are some areas where the text falls short. One issue that stands out is the occasional confusion with certain vocal tricks and quirks that are unique to Harry Caray's delivery. The generated text sometimes repeats words or phrases in a way that seems unnatural or nonsensical, which can detract from the overall quality of the output.

Another issue with the generated text is the occasional copying over of text directly from the source material. While this can be useful in some cases, it can also lead to a lack of originality and creativity in the generated text. To avoid this issue, it would be beneficial to provide more specific prompts to the model and to focus on generating original content that truly captures the essence of Harry Caray's style and

Overall, while the generated Harry Caray text is an impressive example of voice to text cloning technology, there is still room for improvement in terms of accuracy and originality. As the technology continues to advance, it will be interesting to see how it evolves and improves in the future.