

# Worst. Case. Scenario.

ENHANCING 911 CALL HANDLING THROUGH ASSISTIVE AI

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# OBJECTIVES

01	Examine Real-Life 911 Call Handling Failures; Analyze specific cases where dispatcher errors led to tragic outcomes.
02	Demonstrate the Role of Assistive AI: Explore how AI solutions could have prevented these errors by improving accuracy and response times.
03	Highlight the Future Potential of AI in Emergency Response: Discuss how AI can enhance emergency call handling to reduce human error and save lives.





## For Information Only

The following case studies are derived from actual 9-1-1 calls. The content is based on publicly available information and media, and every effort has been made to ensure its accuracy.



# Call #1 (2013)



## *INCIDENT*

A \$17 million settlement was awarded after a dispatcher failed to dispatch police or a fire rescue team following a call about a car that had slid into a pond. Although EMS was sent, the failure to dispatch a water rescue team contributed to delays. The boy, who was pulled from the submerged car after 55 minutes, later died from complications related to the incident.

## *ERROR*

The dispatcher failed to send a water rescue team, resulting in delayed efforts to save a boy trapped in a submerged vehicle.

# Proposed AI Solution

## Decision Support Systems

AI could have suggested the appropriate response team based on the nature of the call, ensuring that water rescue units were dispatched immediately along with EMS.

## Automated Call Prioritization

AI could have analyzed the urgency and severity of the situation, elevating the call's priority and ensuring a quicker, coordinated response. This could have reduced delays and improved the chances of survival



# Call #2 (2014)



## *INCIDENT*

A 12-year-old boy named Tamir Rice was shot and killed by police after a 911 caller reported a boy playing with what appeared to be a gun in a park. The caller noted that the gun was "probably fake" and the person holding it was "probably a juvenile."

## *ERROR*

The dispatcher failed to relay critical details about the possibility that the gun was a toy and that the person holding it might be a child. This failure led to officers arriving on the scene with an escalated sense of urgency, treating the situation as if the threat was real. Within seconds of arriving, the officers fatally shot Tamir Rice.

# Proposed AI Solution

## **AI-Powered Transcription and Analysis**

AI could have automatically flagged and highlighted the key information provided by the caller, such as "probably fake gun" and "probably a juvenile." This would have ensured that these critical details were immediately relayed to responding officers.

## **Automated Summarization**

AI could have generated a concise and accurate summary of the call, ensuring that officers had a clear understanding of the situation before arriving on scene. This could have led to a more cautious approach, potentially avoiding the tragic outcome



# Call #3 (2014)

## *INCIDENT*

Kristine Kirk called 911 reporting that her husband was hallucinating and becoming violent. Although critical details were entered into the system by the call-taker, the dispatcher failed to relay the escalating threat to officers. By the time officers arrived, 12 minutes later, Kristine Kirk had been shot and killed by her husband.



## *ERROR*

Critical details about escalating violence were not communicated to responding officers, delaying their understanding of the situation. The dispatcher's failure to communicate the severity of the situation led to a delayed and inadequate response.



# Proposed AI Solution

## **Real Time Data Integration**

AI could have ensured that all critical updates entered by the call-taker were automatically sent to responding officers, either through their radios or in-vehicle systems. This would have kept officers fully informed as the situation escalated.

## **Automated Alerts**

AI could have issued real-time alerts to officers when high-risk details were entered into the system, such as "gun" and "hallucinating," prompting a more urgent response.

# Call #4 (2018)

## *INCIDENT*

A Detroit woman, Sha'Niyah Arrington, called 911 multiple times reporting that her boyfriend was threatening her with a gun. Despite the calls, the dispatcher failed to prioritize the situation properly, leading to delays in police response.



## *ERROR*

The dispatcher misclassified a domestic violence call, leading to a delayed response, and the woman was killed before police arrived.



# Proposed AI Solution

## **Automated Risk Assessment**

AI could have analyzed the caller's description of the threat, identifying it as a high-risk domestic violence situation, and escalated the call to ensure immediate police intervention.

## **Natural Language Processing (NLP)**

AI could have assessed the caller's language and urgency, prioritizing the call correctly and preventing the misclassification that led to the delayed response.

# Call #5 (2021)

## *INCIDENT*

A dispatcher was suspended after they failed to properly log and escalate a 911 call reporting a home invasion, which delayed the police response. By the time officers arrived, the suspect had already killed two people. The delay was attributed to human error in processing the emergency call.

## *ERROR*

The dispatcher failed to log and escalate a 911 call about a home invasion, leading to a delayed police response.





# Proposed AI Solution

## **AI-Powered Call Logging and Escalation**

AI could have automatically logged the call as a high-priority emergency based on the keywords and tone of the call, ensuring that it was escalated to the appropriate response level immediately.

## **Incident Summarization and Prioritization**

AI could have summarized the call and flagged it as an imminent threat, ensuring that officers were dispatched without delay



## Benefits of Assistive AI in 911 Call Handling

- Improved Efficiency: Faster call routing and dispatching with AI recommendations.
- Enhanced Accuracy: Clearer communication through AI-powered transcription and real-time alerts.
- Better Data Integration: Comprehensive situational awareness by aggregating real-time data from multiple sources.
- Risk Mitigation: AI can assess and prioritize calls more effectively, reducing the chances of human error in emergencies.



# Get In Touch

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