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Data-Driven Journalism

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Data Critique 2

A Critique of “[Most of the dead Astroworld victims were in one highly packed area, video timeline shows](https://www.washingtonpost.com/investigations/interactive/2021/what-happened-astroworld-travis-scott/?itid=sf_visual-forensics)” by the Washington Post

On Nov. 5th, 2021, ten people died and dozens were injured at a Travis Scott concert making it one of the most deadly concerts in the nation’s history, according to the Washington Post. In wake of the tragedies that occurred last night, a slew of news and entertainment stories popped up after concert safety and what went wrong that night. The Washington Post was one of many major news outlets to do an investigation into the Astroworld Music Festival. In “Most of the dead Astroworld victims were in one highly packed area, video timeline shows,” by Shawn Boburg, Sarah Cahlan, Joyce Sohyun Lee, Atthar Mirza, Elyse Samuels, they reconstruct the set up at Astroworld. This article reveals through their investigation that most of the victims who died were in one concentrated area.

A lot of the concrete data that was released during and after this incident seemed to be public knowledge. Since almost every American and even some foreign news outlets were covering it, data about the number of deaths/people injured, people in attendance, size of the venue, concert staff working, etc was widely available. What has yet to be determined is what really happened. Through the use of concert videos posted on social media, exclusive interviews with witnesses and an “expert” crowd analysis, the Post was able to provide a better understanding of the events that occurred leading up to the tragedy and utilizing data in a really interesting way to do so. This story relies heavily on a video visualization that allows you to follow along with the concert from start to finish through the investigation. Within the visualization, there is tons of data usage that helps move the story along. One of the first things described is how the Post reconstructed the venue. They mention an analysis done by researchers at Carnegie Mellon University, which determined that in the highly centrated areas where the seven victims died, there was as little as 1.85 square feet per person to be. Noted in this estimate is that the density was likely a little higher because the image they used to estimate was taken at night from far away. These researchers used what is called a “Crowd Counting Model.” Two crowd science experts told the Post that this density creates a huge risk in a crowd for it to collapse on itself, which is essentially what happened. Density is a really important factor of this video because this is how experts were able to determine how the crowd was distributed. They did through analyzing videos of the crowd and separating what their locations seemed to be into quadrants. These quadrants are used throughout the story as a guide for readers to follow along. I think the combination of the video and the visualization is not only extremely helpful in this story, but also necessary. One criticism I have is that at first glance of this investigation, I had some trouble with deciphering what exactly the maps were showing. The video provides movement in these maps so you can follow along a lot easier, but just reading the story as is, it is a little harder to follow. Another criticism I have is that I wish they talked more about size and gave deeper details about the density of the venue. I think it would have been easier to understand by using some comparison models of similar venues. They mention it being the size of three football fields, but I think some sort of quantification or visualization of that would have been helpful. They spoke a lot about the density of the space at the beginning, but as they started to get into the medical response of the show, that faded a little into the background. I think those facts are extremely important to what happened that night, so I think that information about density and how that kind of concert crowding can occur or be prevented would be helpful. It was mentioned in text at the end, but I think some more detailed prevention and safety info would have been a nice addition. Outside of those two minor criticisms, I think this was an extremely well-done investigation. One thing I did really like was the use of the police report time stamps to follow the story, basically minute by minute. This is the kind of data that guides you through the events of that night. That is the kind of data you usually don’t see, but are told about, so I liked that they did that.

One thing I think this article did incredibly well was their ability to make something that seems so complicated so clear. I can’t imagine the kind of work that goes into conducting a crowd analysis like the one done here, so I applaud them for the amazing job they did with that. I think that this was an incredibly interesting use of complex data to tell a story in a way that people can understand. Much of what we know about that night is because of social media and without it, we might have not never truly understood exactly how the crowd looked. The idea of utilizing social media to tell a story that was really about collecting social media data and turning it into an entire chronicle of that evening is really something that I give my praises to.