

Building the Database to End School Violence



The problem of school violence ~~Seeing the forest~~

~~Gun~~ ~~School~~ violence ~~in schools~~ is a public health issue that by 2018 had affected almost 200,000 students since the 1999 shooting in Columbine, CO. ~~Then~~ ~~in 2019~~ there was an average of one school shooting every school week. But ~~despite the frequency of such tragedies,~~ nothing was being done at scale to analyze data from the events to identify patterns so others could recognize the signs and prevent further catastrophe. ~~prevent how to prevent these violent events is still not something that's well understood.~~ Some believe that technology is the answer to creating a solution.

As a professor and technology ~~advocate~~ philosopher, Paul Privateer, believes that technology is an intricate part of our social consciousness. In under a year, the world developed and distributed a COVID-19 vaccine, and people immediately went to work building aggregate search tools that allow anyone to find nearby doses. Why, argues Professor Privateer, do we not have the same response to school violence? With the right resource, parents or teachers could search behavioral changes of an individual, or a new high school principal could search the location and demographics of the school, and they'd see in an instant whether those traits correlate to violent actions. They could intervene or prepare, and potentially prevent another tragedy. ~~landscape and the work of his organization focuses on technology to understand how social behaviors correlate to school violence. Throughout his career he's been a university professor at San Jose State, Arizona State University, Georgia Tech, and MIT. And it was during his time as a professor that the idea for the NoSchoolViolence project was born. Throughout his career he's been a university professor at San Jose State, Arizona State University, Georgia Tech, and MIT. And it was during his time as a professor that the idea for the NoSchoolViolence project was born.~~

An idea ~~Initiative~~ born ~~of~~ in response to tragedy

Throughout his career Paul Privateer has been a professor of technological sciences and digital

culture at San Jose State, Arizona State University, Georgia Tech, and MIT. It was during his time as a professor that the idea for the NoSchoolViolence project was born. While teaching working at Arizona State University,. That year two graduate students in the graduate school committed suicide within a few months of each other. As Paul grieved the loss of these young people, he put out a called to his colleagues to find a way to use technology to understand and analyze the psychological and social factors of violence suicide. Unable to get federal funding, they decided to proceed on their own.

Professor Privateer recognized that school violence events data were recorded in over 40 separate, local systems in narrative “trend reports.” The His vision was hope being that by converting those reports into queryable data and centralizing it in a single database, it could be used to find patterns, so that violent events could be better predicted--preventing future deaths- by helping people understand now encompasses several distinct but related areas of research. They were motivated by the hope of being able to prevent such tragedies in the future. From this starting point Professor Privateer began investigating how similar methods of analysis could be used for school violence prevention. And founded his Seattle-based non-profit NoSchoolViolence.org in 2017. ¶



The nonprofit focuses on using new social science theories in conjunction with big data to create tools that can empower parents and educators to intervene before violence occurs.

How it works

The Athena app is a project under the NoSchoolViolence umbrella that is developing focused on creating a national school violence database that's searchable via a user-friendly an interactive app for parents and educators. Using powerful data science software, the team has been able to pull reports from the disparate sites housing the information, run comparative analyses to identify common data points, and organize that data into tables.

There's a lot of data on school violence but it isn't currently centralized and organized in a way that makes it useful to parents, teachers, and school administrators to help them predict and prevent school violence. ¶

The goal of the Athena app is to collect data that's not typically collected in government databases in one place to attempt to identify patterns; such as grades, antisocial behavior, breakups, hostility, and anger. Alteryx is used to collect and analyze the data and Tableau provides visualizations for the interface. ¶

The long term goal of this project is to provide the Athena app as a resource for parents, school faculty and administrations, researchers, health professionals, state education departments, local school boards, and state and federal agencies. The app data will help them understand how behavior correlates to violence, and offer tested and effective intervention methods. And t Through this analysis users will they'll be able to build and sustain successful violence prevention programs.

Current state and next stepsPartnering with DemocracyLab

The Paul has attended 10 DemocracyLab hack-a-thons where he have been a valuable resource for the Athena project. connected with volunteers skilled in wireframe search engines, machine learning, and natural language processing. At each event, they worked to advance the quality of the data set and efficiency of the search models. By participating in these events Paul has discovered what improvements will benefit the project most and moved the Athena project has been able to move the project forward iteratively. They've been able to better understand what improvements will benefit the project most. Once the backend data is fully converted, Paul will commit more refining the search models.

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Get Involved

Currently, this project is still in the development phase, and there are lots of ways to get involved. If you're a designer, data savvy, or specialize in machine learning who wants to help create the first national school violence database and search tool this is a great project for you.

Currently the Athena project is looking for volunteers with the following skills:

- Working knowledge of wireframe search engines
- Machine learning experience
- Natural language processing
- Data Conversion for structured queries

DemocracyLab is a 501(c)(3) nonprofit organization with a mission to empower people who use technology to advance the public good. We are headquartered in Seattle, Washington, USA.

DemocracyLab earns income to support our programs by offering tech-for-good employee engagement programs and corporate sponsorship opportunities. Please contact us to learn more.