

## Psychiatry

# Automated Risk Assessment (ARIA) for School Violence Prevention

## Brief Description of Technology

An innovative AI-based system for early detection and prevention of school violence through automated risk assessment.

### TECHNOLOGY ID

2018-0213

### COMPLEMENTARY TECHNOLOGY

Brief Rating of Aggression By Children and Adolescents (BRACHA) (Tech ID 2016-0604)

### BUSINESS OPPORTUNITY

Exclusive License or Sponsored Research

### TECHNOLOGY TYPE

Digital Health

### PATENT INFORMATION

Issued

### LEARN MORE

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## Technology Overview

ARIA represents a groundbreaking approach in forensic psychiatry, leveraging natural language processing (NLP) and machine learning to analyze student interviews for early detection of potential school violence. Developed by Cincinnati Children's Hospital Medical Center, this system is one of the first to use AI in assessing short-term violence risk. The technology is designed to process vast amounts of interview data, identify key linguistic patterns, and predict violent outcomes with a high degree of accuracy. This approach is not only innovative but also addresses the critical need for rapid and precise risk assessment in educational settings.

## Applications

- Early identification of students at risk of violent behaviors.
  - Providing critical insights for targeted prevention programs.
  - Enhancing school safety measures and mental health interventions.
  - Potentially applicable in other settings for youth behavior assessment.

## Advantages

- High accuracy with an AUC of 0.946 in matching clinical judgments.
  - Rapid processing of large volumes of data.
  - Automated, reducing the need for extensive manual analysis.
  - Provides actionable insights for early intervention.

## Market Overview

With growing concerns over school violence, the demand for effective prevention tools is increasing. ARIA offers a unique, AI-driven solution with the potential for widespread adoption in schools and other youth-focused institutions. The technology's innovative approach positions it strongly in the digital health market, especially in sectors focusing on youth safety and mental health.

## Investigator Overview

