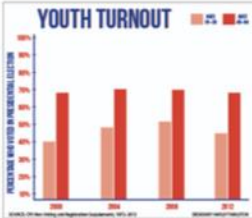**Trinity College - Department of Computer Science**

Gadfly - Voting system that students actually use

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Problem

In 1972, the first year 18- to 20-year-olds were allowed to vote, 55 percent of 18- to 29-year-olds cast ballots. Only 43 percent of that age group voted in 2016 and just 16 percent turned out to vote in 2014.

Turnout among young voters is typically 20-30 percentage points lower than among older citizens. In fact, youth turnout has never matched that of 1972 when young people were first allowed to vote.

Hypothesis

The author conducted blind cohort analysis on students both active and inactive in college politics

The author observed that while most students had while both cohorts had strong opinions, the politically inactive cohort lacked agency to seek active elections on campus and were disengaged from the college election process.

How do we create a more engaging voting platform?

Students are actively engaged in sharing their opinions in social media. If such engagement is combined with a voting platform, voter apathy can be solved.

Technical requirements

Given the sensitivity of robustness and data security of building a voting platform these goals were set as the success criterion

- Concurrency - Multiple people may use the service at one point
- Security - All data must be encrypted at rest
- Reliability - Must be running 24x7
- Development speed

Technical Stack

Given the 4 major requirements of the project, the technical stack chosen was the Meteor framework built upon Node.js and a MongoDB database.

Gadfly is deployed in Galaxy built upon Amazon Elastic Virtual Machine with docker containerization.

Why is Trinity Gadfly better?

Gadly uses social engagement to drive voter engagement. Users can both

- **Post opinions - Low commitment**
- **Run for election - High Commitment**

Future Goals

This project will be extended with features such as a hyperlocal dorm group chat where students and a volunteer signup form where students can choose to donate their labor to solve campus issues

See left: Product screenshots of Trinity Gadfly in action.