Link:
https://news.osu.edu/news/2016/10/17/drinkmodel/?platform=hootsuite
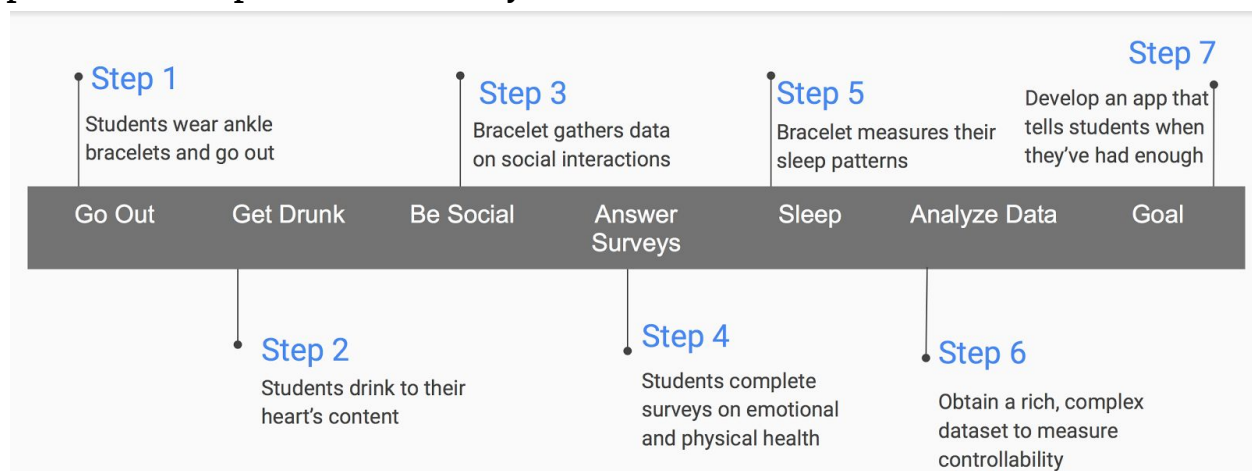Title: *Here's how young people decide when they're drunk "enough," according to math*
Author: Pam Frost Gorder
Published: October 17, 2016

<u>Review</u>

Gorder's article focuses on the work of two Ohio State Professors. John Clapp, a professor of social work and director of the Higher Education Center for Alcohol and Drug Abuse Prevention and Recovery, held a decade-long study, gathering data from college students on their drinking habits and their decision-making. Later, he asked Kevin Passino, a professor of electrical and computer engineering and director of Ohio State's Humanitarian Engineering Center, to re-analyze the data from an engineer's perspective by modeling the data and comparing it to current technology. Passino found that a student's decision on whether to continue drinking or pace themselves was very similar to many modern engineering systems. He mentioned that this behavior resembled that of a cruise control system in a car, which decides to accelerate or brake depending on the current speed, and a proportional derivative controller, which measures how far a system has moved from a set point, and then adjusts accordingly.

However, Clapp's data and Passino's analyzation of the data did not provide enough to truly make an impact on the college lifestyle. Clapp and Passino wanted to measure controllability by generating a complex data set with a proof of concept for a new study:

Step 1 — Students wear ankle bracelets and go out
Step 2 — Students drink to their heart's content
Step 3 — Bracelet gathers data on social interactions
Step 4 — Students complete surveys on emotional and physical health
Step 5 — Bracelet measures their sleep patterns
Step 6 — Obtain a rich, complex dataset to measure controllability
Step 7 — Develop an app that tells students when they've had enough

Go Out   Get Drunk   Be Social   Answer Surveys   Sleep   Analyze Data   Goal

After this seven-step process, their goal was to create a user-friendly app that will not only ensure the safety of those going out to drink alcohol but also of those around them. The ability to call a taxi from the push of a button to the user's GPS location will be revolutionary and will hopefully reduce the yearly deaths reported as a consequence of alcohol. The app will work in concert with a wearable BAC biosensor to help the app know what reminders to send the user and when to send them. The app will help monitor the user while they are drinking and help them drink responsibly.

I am very supportive of this study and its goals. I learned from the National Institute on Alcohol Abuse and Alcoholism's website on college statistics that *every year*, as a result of alcohol-consumption, **1,825** students die from alcohol-related incidents, **696,000** are assaulted by another student who has been drinking, and **97,000** report experiencing sexual assault or date rape. Hopefully, as students adopt this app and integrate it into their daily lives, they will be reminded of their limits and their inability to safely drive home. I am extremely grateful for such passionate professors who strive to prioritize the safety of college students, as they fight the social pressure to drink during these formative years of their lives.

Resources

"College Drinking." *The National Institute on Alcohol Abuse and Alcoholism*, http://pubs.niaaa.nih.gov/publications/CollegeFactSheet/CollegeFactSheet.pdf. Accessed 27 Oct. 2016.

Gorder, Pam. "Here's how young people decide when they're drunk 'enough,' according to math." *The Ohio State University*, https://news.osu.edu/news/2016/10/17/drinkmodel/?platform=hootsuite. Accessed 27 Oct. 2016.