# Engagement and Anonymity in Online Computer Science Course Forums

Mrinal Sharma, Hayden McTavish, Zimo Peng, Anshul Shah, Vardhan Agarwal, Caroline Sih, Emma Hogan, Ismael Villegas Molina, Adalbert Gerald Soosai Raj, Kristen Vaccaro (2023)

## Summary

This paper is an intersectional analysis of several aspects of anonymity in an online course forum for computer science courses. Previous studies looked at gender only, but this study expands to look at race/ethnicity and intersectionality between gender and race/ethnicity. It also looks at different context of usage, and the lurking rate of students based on those intersectional demographics. Finally, it analyzes how well prediction models for gender match self-reported data.

## Familiarity

I am very familiar with this topic, but not necessarily the analysis performed in the research. I teach many online courses and have used both Piazza and Ed Discussion. I have offered students the ability to post and comment anonymously, and have also observed lurking behavior in the classes. Much of the data collection is very straightforward and easy to follow.

## Strengths & Weaknesses

This paper does an excellent job of explaining the source and analysis of the data, and is clearly following established norms and processes for processing and analyzing that data. Many limitations are clearly called out and discussed, and the authors are careful not to infer beyond what the data shows. The paper is also well framed in prior work with ample citations to additional resources. The use of boxes to set aside key findings is very useful.

The length of the paper makes it a bit daunting to read in a single sitting, and the large amount of data presented requires time and effort from the reader to follow. The inclusion of RQ4 discussing gender prediction seems to be a bit disconnected from the other three RQs, especially since all of the data sources used in this research are not predictive – that RQ could be spun out into a separate paper. Finally, the paper rightly points out that the data is a bit limited since it is from a single large university with large classes and a very competitive admissions process, so it may not generalize to an open public university such as K-State

## Research Papers

*For full research papers, address each of the following items. (1-2 paragraphs for each)*

### Motivation/Research Questions

Motivation is clear and easy to follow. The research questions are clearly stated and analyzed separately.

### Prior & Related Work

Lots of prior and related work is cited. The paper does a great job framing the importance of the analysis being performed, especially due to the recent COVID-19 pandemic.

### Scientific Approach

The approach seems valid based on my previous experience. The analysis methods are clearly listed and cited, and reasoning is given for the choices made in analysis.

### Evidence

The evidence is clearly presented in many tables and figures, and the discussion builds directly from the evidence and statistically significant findings.

## Impact

Most of the data presented in this paper is valuable confirmation of prior knowledge, but some of the analysis into various intersectional groups is new. They also were able to show that the course itself is one of the major driving factors between student choice to post anonymously, more than any other factor.

## Presentation/Grammar

Well written – no complaints

## Audience

This paper is very useful for anyone teaching an online course that uses discussion forums. The decision to allow anonymous posting requires careful analysis of the pros and cons of the approach, and also how course design should change to accommodate that decision and create a culture of openness to asking questions online.

## Overall

This is a very deep and well-written paper that analyzes lots of data about anonymity in an online course forum. The model presented for performing intersectional analysis of data as well as the discussions about various issues such as the accuracy of gender and race/ethnicity data is very impactful.