

Thesis Project Portfolio

PoetryWordle

(Technical Report)

Optimizing the Usage of Video Games in Youth Education

(STS Research Paper)

An Undergraduate Thesis

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Our classrooms are changing. This was made harshly apparent by the jarring, but near universal, switch to online classes during the height of the COVID-19 pandemic. Speaking as a student who was suddenly told in the summer of 2020 that my second year at U.Va. would take place from the comfort of my own home, I don't believe we have collectively quite realized just how modular our education system has become; in fact, it has become increasingly common for instructors – of all levels – to prescribe watching a YouTube series as homework, or for every school in a district to sign their students up for the same online learning program for work outside of school. In some ways, this is great news – with more technology comes countless more potential ways to deliver instruction, with the ceiling for the optimal way to deliver content growing higher each day. The technical project presented here is a prime example of this. However, we must make it an utmost priority that we are not reducing our students to guinea pigs; mere subjects that are simply objects of research for behavioral scientists to gawk at. Experimental educational strategies are exactly that – experimental. We must always be careful to closely analyze the potential risks of trying out some new tool or teaching method, and ask if we are stunting our students' growth in the process. A controversial debate in the wake of the peak of Zoom classes is whether the instruction delivered in online classes was even comparable to that which would have been received in in-person classes, and how serious the difference in quality was. As we move forward, let us remember that the goal in any education-related endeavor should be to maximize the benefit to the students, and that any decisions made should be evaluated with this admittedly very broad, but nonetheless important, lens in mind.