Group 11 - MAT292 Final Project

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1 Motivation and Objectives

"The Video Game Industry (VGI) is a highly innovative and rapidly growing sector [...] with significant economic and social implications. [Yet] the literature remains fragmented and lacks a coherent framework for understanding its complex nature and underlying dynamics." [1] We find that predicting gamer population over time can apply our research of the interplay between technological advancements, affordability, accessibility, and sociocultural trends.

Our objective is to develop a mathematical prediction model using differential equations to illustrate how the gamer population changes over time due to various factors. Beyond simply numerical estimation, we aim to explore the involvment of emerging technologies (i.e. VR, cloud gaming, or quantum computing) in accelerating growth or leading to new technological trends.

2 Mathematical Background

3 Expected Outcomes

References

[1] E. Goh, O. Al-Tabbaa, and Z. Khan. Unravelling the complexity of the video game industry: An integrative framework and future research directions. *Telematics and Informatics Reports*, 12:100100, 2023.