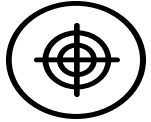




Helping Videogame Developers Thrive in an Accelerating Market

- AI Academy Capstone Project – Group 5

Elevator Pitch



Objective: Provide leading and in-time insights to videogame developers to help them thrive in an accelerating market.

Key Drivers:

- **Industry:**

Significant Growth and popularity driven by increasing accessibility, new market entries, and large volume of consumers.

- **Business Model:**

Use and leverage statistically built AI models to provide developers with real-time feedback and sentiment analysis on their games from one of the most popular social media platforms around.



High Level Details:

Model Includes:

- *Baseline Models*
- *Neural Network*

Data Cleaning Techniques:

- Tokenization
- Term Frequency – Inverse Document Frequency (TF-IDF)

Data Used:

- [Kaggle Twitter Video Game Set](#)



Agenda

1. Meet the Team
2. Business Overview
3. Data Understanding / Model Building
4. Why work with us?
5. Q&A



Questions?

We will save time
for Q&A at the end of
the presentation.

Meet the team

Deloitte AI Academy – Capstone Group 5



**Jahnavi
Brahmbhatt**

- Risk & Financial Advisory Analyst
- Cyber & Strategic Risk
- Costa Mesa, CA



**Miguel Cruz Le
Hardy**

- DC Junior Associate
- New Business Innovation (NBI)
- New Orleans, LA



**Brandon
Cancino Meyer**

- ARDC Analyst
- AI & Data Engineering
- Strategy & Analytics
- MX - Querétaro



Landon Steele

- Risk & Financial Advisory Analyst
- Accounting & Internal Controls
- Dallas, TX



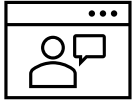
**Patricio Solorio
Cabrera**

- ARDC Analyst Intern
- Strategy & Analytics
- MX - Querétaro

Business Understanding

Evaluating the opportunity at hand for the videogame industry.

MARKET TREND



The increased popularity of gaming and esports due to the COVID-19 pandemic have established online-gaming as an ever-growing interaction medium for people worldwide; updates need to be rolled out periodically in order to engage and maintain player bases.

BUSINESS OPPORTUNITY



Videogame companies face the challenges of continuously improving their games to meet expectations of millions of players. The goal is to obtain actionable insights from player sentiment in the online fanbases related to newly deployed content as it is released.

STRATEGICAL APPROACH



Leveraging AI models, we plan to analyze online discourse by aggregating, processing, and analyzing posts to gauge the general opinion of a game in order to create actionable and profitable insights regarding the future of these projects. This will allow us to react in real time to the demands of a playerbase.

Data Understanding & Models

Data sources understanding & types of models proposed



2 Data Sets

Data from Twitter

Source: Kaggle

Already tagged as:

- Positive
- Neutral
- Negative

Overview:

The dataset already tagged with sentiment about videogames

The idea would be to use Twitter API or other similar social media sites (Reddit, Threads, YouTube comments, etc.) to collect data but with an already tagged dataset from Kaggle.

Model Background

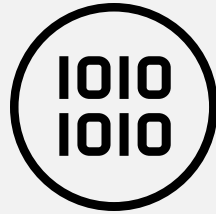
Data Cleaning

Methods:

- Basic Data Preprocessing
- Remove Emojis
- Remove Entities
- Tokenization
- Frequency Distributions
- Stemming
- Lemmatization
- Compute TF-IDF Vectorization

Our Models:

What we built...



Multi-Class Logistic Regression



Decision Tree Classifier



Neural Network

To get access to information...



Better

Unique insights



Faster

Weeks, not months



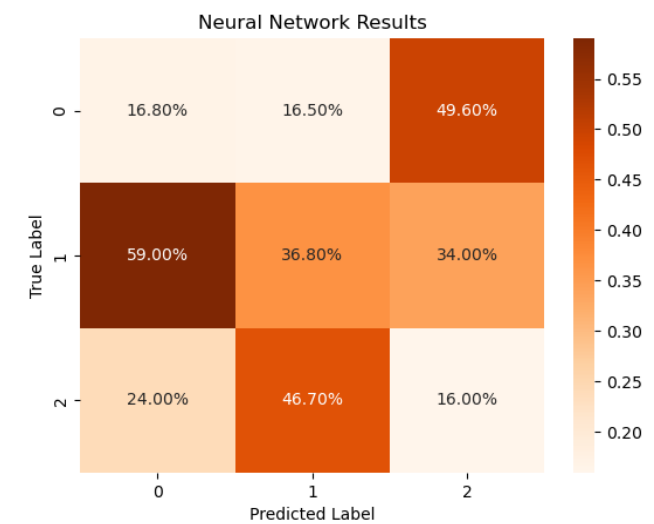
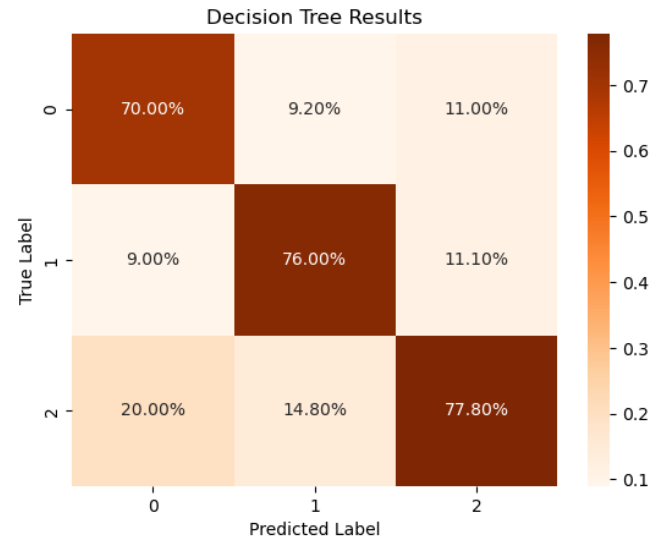
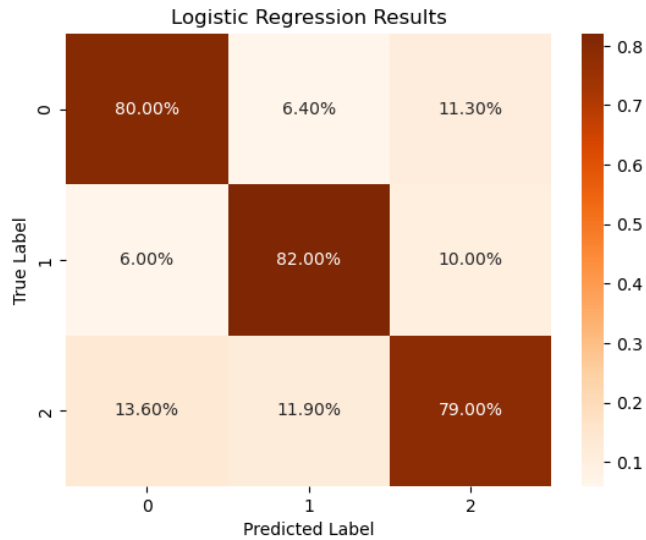
Cheaper

Flexible resourcing

MAIN MODELS

Our Models

The models we built to help you thrive



Key:

0 – Positive
1 – Negative
2 – Neutral

Overall Model Accuracy:

- Logistic Regression: **80%**
- Decision Tree: **75%**
- Neural Network: **88%**

	Precision by model		
Label	Logistic	Tree	Neural Net
Positive	80 %	71 %	16.8%
Negative	82 %	77 %	36.8%
Neutral	79 %	78 %	16%

What does this mean for your organization?



Our Model Will:

Enable data-driven decisions improving overall performance and effectiveness



Accelerate feedback loops by utilizing in time opinions of customers enabling you to iterate and implement improvements at a rapid pace



Reduce the need for costly market research, tiring focus groups, and be able to focus your development process into what really matters to users

Recommendations

To maximize profitability the company should act now!



JUMP AHEAD IN A THRIVING MARKET

The current market conditions align for the opportunity to continue to thrive – why not assert yourself as a market leader?



INVEST IN API

Invest in API for Reddit, Twitter, Threads and other social media platforms to have access to a variety of users & opinions



IMPLEMENT THE MODEL INTO EVERYDAY DECISIONS

Our analysis and model will allow for real in-time feedback to be used in the day to day.



FOCUS ON REAL-TIME DATA AROUND THE WORLD

Serve users all over the world with different expectations and be able to cater to them all

Next Steps

Where do we go from here?



Let's work together!

①

Generate our own Data Set

Obtain data from across platforms that we can analyze in real time

②

Implement ML pipeline

Improved automation, scalability, efficiency, monitoring, and flexibility


③

Utilize Pipeline to provide in-time feedback to developers

Immediate feedback from consumers after updates for example



Climb the Market

An abstract network diagram in the top-left corner, featuring several grey circular nodes of varying sizes connected by thin grey lines. Some nodes are larger than others, and the connections form a complex web.

Q & A

Thank you!

An abstract network diagram in the bottom-right corner, similar to the one in the top-left, with grey circular nodes and connecting lines, creating a sense of a larger network.