



Comparing Language in FPS games

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Recent FPS games and their Subreddit Communities



Overwatch 2

Released: October 4, 2022

Cost: Free to Play

Size: 35 million players in first month

Subreddit members: 4.2M

(*Overwatch* subreddit)

Call of Duty: Modern Warfare II

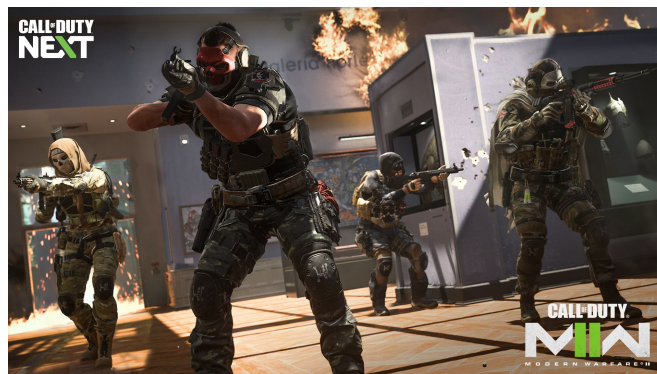
Released: October 28, 2022

Cost: \$70+

Size: Over \$1B in sales by Nov. 7

Subreddit members: 806K

(*Call of Duty: Modern Warfare II* subreddit)



Objectives

- **Create classification model** for classifying reddit posts as *Call of Duty: Modern Warfare II* subreddit or *Overwatch* subreddit posts using natural language processing (NLP)
- Examine features which have high importance in classification to shed light on these two gaming communities
- **Provide actionable insights for the advertising departments** of the two game companies



Process + Logistic Regression Model



- Took title + self_text
- Lemmatization from Spacy
- Removed words associated with just one game:
 - Self-references
 - Character names
 - Weapon Names
- Baseline: 0.660
- CountVectorizer(), no stop words
- Unigrams
- L2 penalty, $C = 1.3$
- Lemmatized title + self_text
- Training score: 0.918
- Testing score: 0.861

Results (feature occurrence x model coef)

A one-word increase in occurrence of "**Role**" in a post means that the post being for Overwatch 2 subreddit is **~17.2** times as likely

- "**Role**" → 17.2; "**Tank**" → 13.1; "**Heal**" → 11.9;
- "**Skin**" → 2.9
- "**Loadout**" → 0.04; "**Weapon**" → 0.18

Insights:

- Overwatch 2 is more role/ character based
- COD MW2 is more weapon-based
- Overwatch 2 has more unique/ niche language



Conclusion

Niche vocabulary signifies a strong gaming community + success, but can keep new users from joining a game

1. **Overwatch 2** (FTP): include its niche terms in advertising efforts to build a stronger sense of community → increase in-game purchases
2. **Call of Duty: Modern Warfare II** (\$70): gear advertising towards new users by unraveling any niche in-game terms and making the community more accessible → increase new users
3. **Next steps**: systematically look at community language (through Reddit, voice chats, and voice channels) and relate it to game revenue

<https://www.callofduty.com/blog/2022/09/call-of-duty-modern-warfare-ii-next-multiplayer-maps-modes-gunsmith>

https://www.youtube.com/watch?v=dZl1yGUetjI&ab_channel=PlayOverwatch

<https://www.windowcentral.com/gaming/overwatch-2-crosses-35-million-players-in-its-first-month>

<https://www.ign.com/articles/call-of-duty-modern-warfare-2-crosses-1-billion-in-sales-faster-than-any-game-in-the-franchise>

<https://overwatch.fandom.com/wiki/Roadhog>

<https://imageio.forbes.com/specials-images/imageserve/602f47f3f45bf67fa7ee276b/-Overwatch-2--redesigns-for-Tracer--Lucio-and-Genji/960x0.jpg?format=jpg&width=960>

<https://www.peakpx.com/en/hd-wallpaper-desktop-nfggg>