



VIDEO GAME ANALYSIS PART TWO

ANDREW BOHL | ANURAAG MOHILE | EVAN DAVID | WON LEE | JONATHAN EVANS



PRESS START

DATA WE USED



SAMPLE OF 16,000 **REDDIT COMMENTS** | SEPTEMBER 1 TO OCTOBER 12

SAMPLE OF 15,000 **METACRITIC REVIEWS**



GAMES WE ANALYZED

THREE TIERS



TRIPLE A
MORE THAN 10 MILLION
COPIES SOLD



MID-TIER
BETWEEN 1 AND 10
MILLION COPIES SOLD



LOW-TIER
LESS THAN 1 MILLION
COPIES SOLD

FOUR CONSOLES



SIX GENRES



ACTION ADVENTURE



ROLE-PLAYING



SPORTS



PUZZLE



RUN-N-GUN



FIRST PERSON SHOOTER

GAMES WE ANALYZED

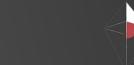
13 TRIPLE-A GAMES



11 MID-TIER GAMES



10 LOW-TIER GAMES



NO MAN'S SKY

QUANTUM BREAK



44 TOTAL GAMES
SPLITS DETERMINED BY SALES

IMPORTANCE OF OUR ANALYSIS



HELP COMPANIES MAKE MORE INFORMED, DATA DRIVEN DECISIONS



POINT OUT ANY DISCREPANCIES BETWEEN CRITIC OPINIONS AND CROWD OPINIONS



LEARN WHAT FEATURES GAMERS ARE REALLY INTERESTED IN

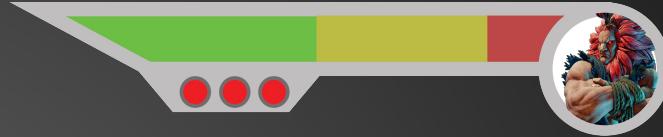




POSITIVE



SENTIMENT ANALYSIS



NEGATIVE



REDDIT



VERY SENSITIVE TO TIME

**GOOD FOR UNDERSTANDING
SENTIMENT AT A SPECIFIC
POINT IN TIME**



INFLUENCED BY NEWS

**NEGATIVE/CONTROVERSIAL NEWS
GETS THE MOST CLICKS, SO THIS
CAN INFLUENCE PUBLIC OPINION**



SENTIMENT ANALYSIS PERFORMED WELL

**GOD OF WAR WAS THE ONLY GAME THAT HAD
SOME ISSUES**



CONFLICTING SENTIMENTS



EXCERPT FROM ARMA REVIEW:

"HAVE YOU TRIED BR IN ARMA? ITS REALLY BAD. I DID IT FOR ALITTLE AWHILE BUT ALL THOSE MILSIM RESTRICTIONS PUT SUCH A HUGE CEILING ON HOW YOU CAN PLAY THE GAME. SITTING IN A BUSH WAS A MILLION TIMES MORE EFFECTIVE THAN ANY OTHER PLAYSTYLE JUST BECAUSE OF HOW JANKY THE MOVEMENT WAS. PUBG IS DEFINITELY A MIX OF REALISM AND GAME MECHANICS TO ENCOURAGE A MORE AGGRESSIVE PLAYSTYLE. I DEFINITELY WOULDNT CALL PUBG "MILSIM", BUT IT IS DEFINITELY DRAWING ELEMENTS FROM THE GENRE."

**OVERALL SENTIMENT: POSITIVE
COMPOUND SCORE: .9719**

PUBG TANGENT LED TO A POSITIVE SENTIMENT



DEALING WITH THE ISSUE



EXCERPT FROM ARMA REVIEW:

"HAVE YOU TRIED BR IN ARMA? ITS REALLY BAD. I DID IT FOR ALITTLE AWHILE BUT ALL THOSE MILSIM RESTRICTIONS PUT SUCH A HUGE CEILING ON HOW YOU CAN PLAY THE GAME."

OVERALL SENTIMENT: POSITIVE
COMPOUND SCORE: .5652

EXTRACTING RELEVANT PARTS PRODUCES BETTER RESULTS
NOT GREAT, BUT BETTER



CONFLICTING SENTIMENTS



EXCERPT FROM GOD OF WAR REVIEW:

"THE LATEST ENTRY IN *GOD OF WAR*, OF ALL GAMES, IS AN AMAZING ANALYSIS OF THE TOXIC MASCULINITY, HYPERVIOLENT NATURE, AND COLD DISCONNECTED MURDERS OF THE PREVIOUS GAMES IN THE SERIES.. IT'S SELF AWARE OF ITS PREVIOUS NATURE AND IS HYPERCRITICAL OF IT TO THE POINT WHERE THE FINAL BATTLE IS EFFECTIVELY KRATOS FIGHTING AGAINST THE KIND OF PERSON HE USED TO BE- A MAN HELL BENT ON BLIND VENGEANCE."

OVERALL SENTIMENT: NEGATIVE
WE NEED TO BE AWARE OF THE GAME'S THEME



METACRITIC

100



IGN gameinformer GAMESPOT

0.0



MOST GAMES ON AN INDIVIDUAL LEVEL ARE RATED
HIGHER BY CRITICS THAN BY USERS



METACRITIC'S LARGEST DISCREPANCIES

NHL 18



.58 HIGHER CRITIC SCORE

MIDDLE EARTH:
SHADOW OF WAR



.36 HIGHER CRITIC SCORE

DESTINY



.43 HIGHER CRITIC SCORE

THESE GAMES HAD THE BIGGEST DIFFERENCES
BETWEEN CRITIC AND CROWD OPINION



METACRITIC SENTIMENTS



SCORE: 7-10

10,491 OBSERVATIONS

MOST PEOPLE GIVE POSITIVE REVIEWS



SCORE: 4-6

1,460 OBSERVATIONS



SCORE: 0-3

3,006 OBSERVATIONS

**2,379 OBSERVATIONS WHERE THE REVIEW DIDN'T MATCH THE SCORE
DEVELOPER TYPE (AAA VS. INDIE), GENRE, AND TIER HAD NO EFFECT ON THE SCORES**



TOPIC MODELING



REDDIT



REDDIT'S TOPIC MODELING IS GOOD AT PREDICTING CURRENT TRENDS IN GAMING



COULD BE A GREAT REFERENCE FOR MARKETERS

EX: Call of Duty: Black Ops - Popular Topic Blackout. New Game Mode.



CAN ALSO MEASURE LONG-TERM EFFECTS OF BUSINESS DECISIONS

EX: Shadow of War - Popular Topic: Microtransaction. 80% Negative Comments from September, despite microtransaction practice ending in April



METACRITIC

WE TRIED SEVERAL DIFFERENT TYPES OF TOPIC MODELING

GENERAL

PC GAMES: TALK ABOUT MODS AND MACHINE PERFORMANCE
MANY PEOPLE COMPARE CONSOLES
PEOPLE TALK ABOUT SINGLE PLAYER CAMPAIGNS



DEVELOPER

NO DIFFERENCE BETWEEN TOPICS DISCUSSED BY USERS
AND CRITICS



REVIEW TYPE

NO DIFFERENCE BETWEEN TOPICS DISCUSSED BY USERS
AND CRITICS



GENRE

FPS: GAMEPLAY, FUN
RPG: OPEN WORLD, QUESTS



METACRITIC

WE WERE ABLE TO BREAK UP OUR DATA INTO FIVE GROUPS

DARK SOULS

CUPHEAD

DIFFICULT

PEOPLE TALK
ABOUT HOW HARD
IT IS TO GIT GUD



THE LAST OF US

STORY-DRIVEN

PEOPLE TALK A LOT ABOUT
THE SINGLE-PLAYER
CAMPAIGN



LOOT BOX
MONSTROSITIES

PEOPLE (NEGATIVELY)
TALK ABOUT DLC AND
LOOT BOXES

The Elder Scrolls

DARK SOULS



FRANCHISES

PEOPLE COMPARE
THESE GAMES TO
OTHER GAMES



GAMEPLAY
FOCUSED

PEOPLE TALK A LOT
ABOUT GAMEPLAY



ISSUES WE FACED



VARIABLE AMOUNT OF PAGES FOR GAME REVIEWS

VERY POPULAR GAMES HAD OVER 10 PAGES (1000 REVIEWS), WHILE
SOME LESS POPULAR GAMES HAVE LESS THAN 100

SELECTION BIAS INTRODUCED

EVEN LOW TIER GAMES SELECTED SELL MORE COPIES THAN
MOST GAMES (THINK HEADPHONES SALES CHART)



SENTIMENT BIAS FROM CRITICS

HAVE TO MAINTAIN PROFESSIONAL RELATIONSHIPS WITH
DEVELOPERS, QUICK REVIEW TURNAROUND TIME (SOMETIMES
A WEEKEND), THEY GET THE GAME FOR FREE

KEY TAKEAWAYS



THE CROWD WILL GIVE A MORE ACCURATE REPRESENTATION OF A GAME, HOWEVER IF YOU'RE IN A HURRY THEN A CRITIC IS FINE.



METACRITIC IS BETTER FOR GAMEPLAY, MORE STRUCTURED REVIEWS, GOOD FOR LOOKING AT GAMES MONTHS AFTER RELEASE



REVIEW SENTIMENTS ARE PRETTY CORRELATED WITH SCORE (IN THE POS-POS, NEG-NEG SENSE)



REDDIT IS BETTER FOR MORE TIMELY REVIEWS, MARKETING, CONNECTIONS TO NEWS.



THANK YOU!



COMPLETE GAMES LIST

TRIPLE-A GAMES

OVERWATCH
HALO: MASTER CHIEF COLLECTION
BORDERLANDS 2
SAINTS ROW 4
THE DIVISION
BIOSHOCK
GOD OF WAR
CALL OF DUTY: BLACK OPS 3
DESTINY 2
ZELDA: BREATH OF THE WILD
THE LAST OF US
THE ELDER SCROLLS V: SKYRIM
THE ELDER SCROLLS IV: OBLIVION

MID-TIER GAMES

MIDDLE EARTH: SHADOW OF WAR
DEAD RISING 4
CUPHEAD
OVERCOOKED
JUST CAUSE 3
ARMA
PAPERS PLEASE
BURNOUT PARADISE: REMASTERED
DARK SOULS
DISHONORED
DYING LIGHT
MADDEN 19

LOW-TIER GAMES

SUNSET OVERDRIVE
NHL 18
QUANTUM BREAK
DEAD ISLAND RIPTIDE
THE DIVISION
NO MAN'S SKY
THE WITNESS
FIREWATCH
CITIES: SKYLINES
STARDEW VALLEY