

# Game Review Score & Text Analysis

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# Background

- Rise of the video games industry starting from the mid 1980s
- Increase in written media and news coverage

# Our (Initial) Research Question

- Are there writing or score similarities and characteristics among writers?
- Use LDA, jargon distance, and sentiment analysis as methods

# Our dataset

- Scraped data from 3 websites: IGN, Gamespot, and Giant Bomb
- All reviews written within the last 18 months (except for Giant Bomb)
- 133 different writers, 1431 games, 1827 reviews

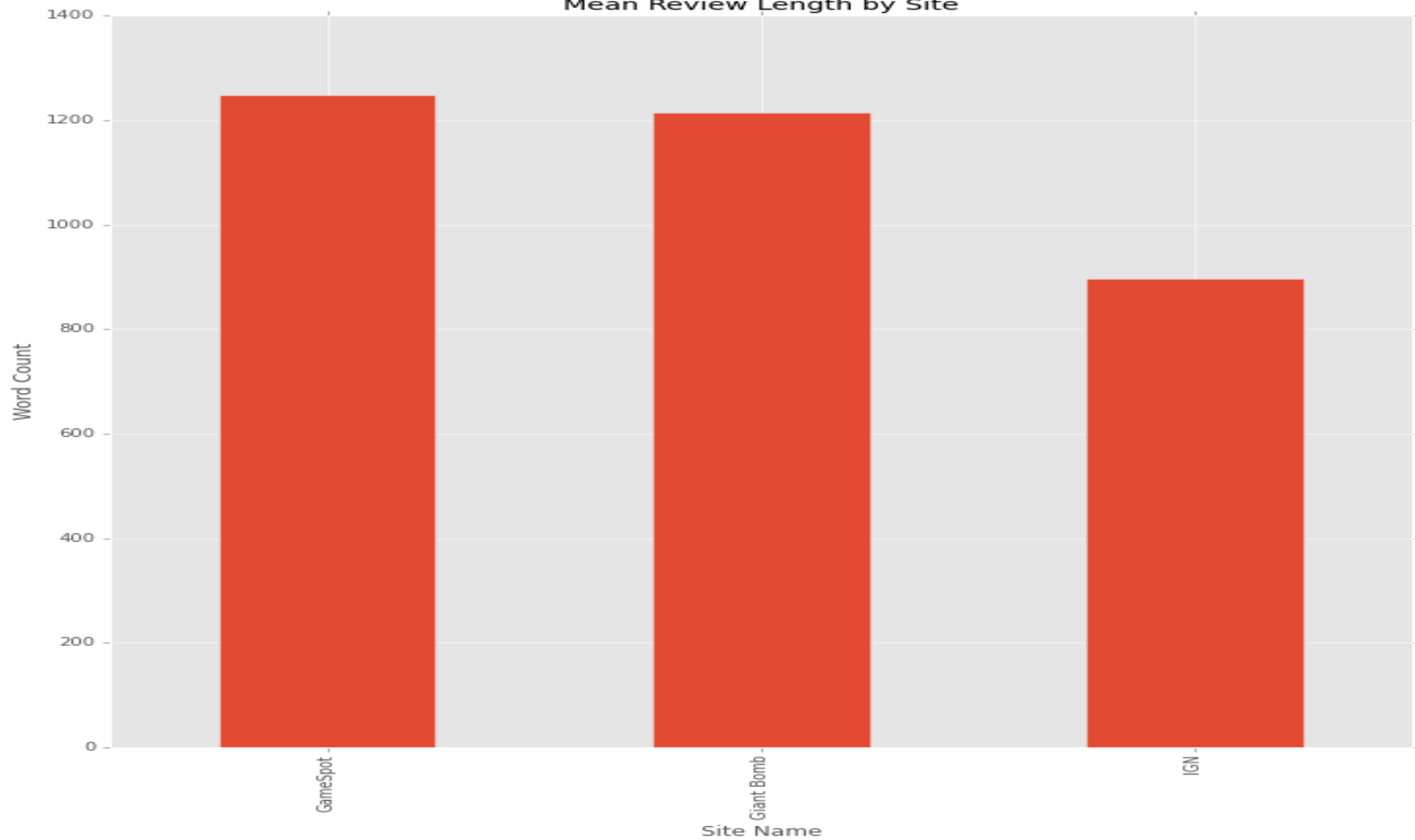
# Exploratory Analysis on Reviews

- Calculated average review lengths of each writer and total per site
- Also calculated average review score per writer

Mean Review Length by Reviewer



Mean Review Length by Site

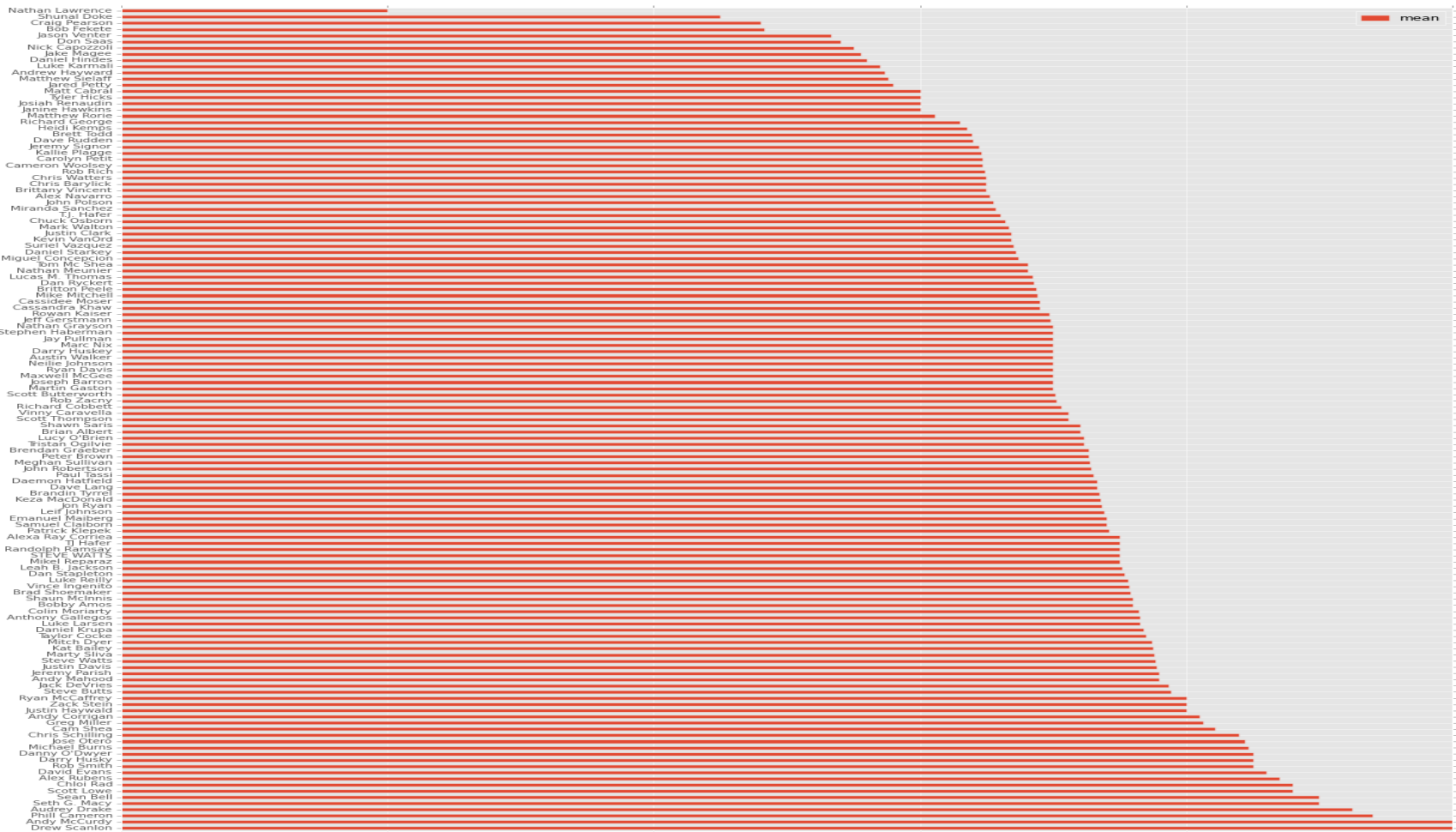


Average review score by reviewer





# Average Score per Writer



# LDA

Treatment group: reviews by writers that gives lower than average score; 65 writers

Control group: 65 randomly selected writers from the whole corpus

15 topics generated for each group

# Treatment Group

Topic 0: bludgeon danganronpa vast chill osiri hatr lord jack swan

Topic 1: bludgeon chill flashi upload gamut hate borgia forget whose

Topic 2: vast govern osiri gamut hate borgia forget whose accus

Topic 3: quantic merchant school forget sorri unplug gamut borgia whose

Topic 4: osiri upload captain edward nukem bludgeon invas swan sorri

Topic 5: everi forget climb captain sleep superman videogam danganronpa osiri

Topic 6: whose yellow nukem vastli doodad manic invas sway blazblu

Topic 7: lore motherload idol blazblu lumin accus hate borgia forget

Topic 8: danganronpa lore edward nukem bludgeon invas swan sorri blazblu

Topic 9: bludgeon vast chill profici buddi tenni upload accus borgia

Topic 10: accus hatr regrett lurk ala forget digit school upload

Topic 11: jack hatr 'all edward aiden appar poorli four mwl

Topic 12: chill lord captain edward nukem bludgeon invas swan sorri

Topic 13: divers accus rise upload blazblu borgia forget whose gamut

Topic 14: hate lumin appar ala voic showcass swan sorri blazblu

# Control Group

Topic 0: upsid buddi kidman hord consider lore edward nukem ai-control

Topic 1: lord poorli flashi ruck voic oncom unplug jack crush

Topic 2: unplug crush quantic showcas diehard lumin inferno whose kidman

Topic 3: ruck enslav worth samurai ziggurat sorri whose miner intro

Topic 4: lord whatev consider lore kidman buddi edward nukem ai-control

Topic 5: oncom showcas hord miner ruck intro spew sorri crush

Topic 6: voic affect climb osiri forza crush edward nukem ai-control

Topic 7: school stratagem everi sway inferno tenni diehard risk osiri

Topic 8: sleep obsess rise sorri sway intro digit upload child

Topic 9: rise recov digit spew miner manic wooden ai-control four

Topic 10: lord upsid poorli enjoy affect edward nukem buddi ai-control

Topic 11: flashi hord sorri whose miner ruck intro spew crush

Topic 12: poorli hord consider lore kidman buddi edward nukem ai-control

Topic 13: jack profici consider lore kidman buddi edward nukem ai-control

Topic 14: lord poorli flashi aiden child crush ruck intro spew

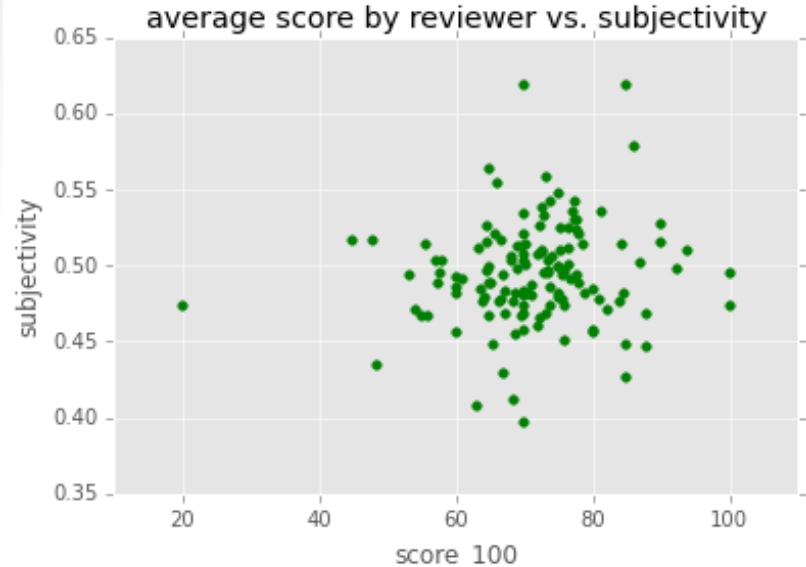
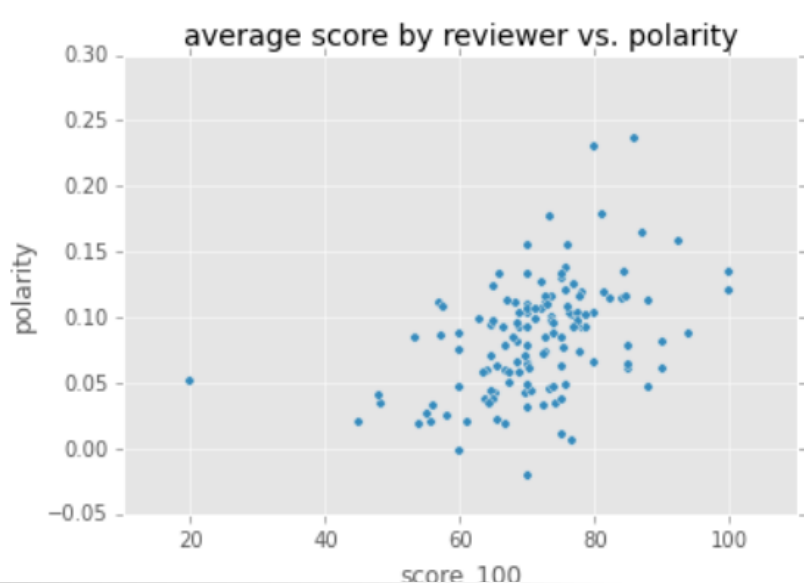
# Jargon Distance

Average Culture Hole of Each  
Group with All Other Groups

Group 1 ranges from scores in (10,20]	—————→	0.603877311999
Group 2 ranges from scores in (40,50]	—————→	0.354558169854
Group 3 ranges from scores in (50,60]	—————→	0.232642618479
Group 4 ranges from scores in (60,70]	—————→	0.222251450889
Group 5 ranges from scores in (70,80]	—————→	0.218852374037
Group 6 ranges from scores in (80,90]	—————→	0.243247576346
Group 7 ranges from scores in (90,100]	—————→	0.389665200183

# Sentiment Analysis

- Uses pattern analysis classifier to determine if words are positive or negative, and how subjective the text is.






NATHAN LAWRENCE

**RUGBY 15 REVIEW**

## CLUSTER-RUCK

Reviewed on PlayStation 4, PC, PlayStation 3, Xbox 360 and Xbox One

→ DECEMBER 4, 2014 Rugby union fans have been starved for authentic video game representations of their beloved sport for years now, with the last truly strong rugby game being Rugby 08. Sadly, [Rugby 15](#) is not the game to break the drought. In fact, it's an utter disaster.



EPHEN HABERMAN

**BOOM BEACH REVIEW**

## DESERTED ISLAND WARFARE

Reviewed on iPhone

→ APRIL 15, 2014 Freemium base-building games are not hard to find on the App Store, but [Boom Beach](#) sets itself apart with an engrossing battle experience rich with strategic choices. The idea is a kid-friendly mash up of Tom Hanks' Castaway and Saving Private Ryan experiences, in which you must build up your offensive and defensive forces and battle other players for resources. This constant switch in focus creates a level a depth that usually is only seen in much larger games, but

# Conclusions and Future Work

Recommender System: our analysis (polarity, jargon distance, average score per writer, sentiment analysis) can be used in building a bigger regression/nearest neighbor model with the following variables:

- platform (mobile, playstation, xbox, PC, etc)
- game type (RPG, strategy, etc)