



NLP: Amazon Video Game Reviews

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Videogames are a bigger industry than movies and North American sports combined, thanks to the pandemic

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global film industry reached \$100 billion in revenue

American sports would bring in more than \$75 billion in 2020.

gaming sales rise 20% to nearly \$180 billion

Goals:



Topic Modeling

- › Produce 10 Video Game Review Topics



EDA

- › Examine topic insights in positive vs. negative reviews
 - Can benefit game developers



Streamlit Web App

- › Develop interactive app to display results

Data:

2010 – 2015 Amazon Video Game Review Dataset from **kaggle**

Data Cleaning:

- Drop nulls
- Drop (5) extraneous columns
- Drop documents with review length < 30
 - e.g. (“Great”, “Five Stars”, “Awesome Game”)

	Product Title	Star Rating	Review Text
0			
...			
124649			



Design

Topic Modeling

(Game Content): story, level, character, world,
combat

(Platform Availability): amazon, download, steam, code,
buy, origin, install

(Online): play, online, ea, servers, mode, players, pc

(Critique): like, feel, much, people, think, things, better, see, bad,
feels

(Negative Feedback): get, buy, go, money, want, back,
work, things, need

(Positive Feedback): great, story, graphics, love, price, best, deal,
gameplay, recommend

(Downloadable Content): new, expansion, content,
version, dlc, world, pack, original, better, release, features

(Worthwhile): time, first, every, long hours, back, take, go,
money, times, find, around, try, going, start

(Difficulty): fun, much, love, easy, little, challenging, levels

(Performance): good, graphics, pretty, fps, bad, pc, sound, controls

Pick a Game Title to Show Review Info About

Game Titles

Tomb Raider

Tomb Raider

Tomb Raider Underworld

Tomb Raider: Underworld [Downlo...

Tomb Raider: Anniversary [Downlo...

Tomb Raider: Legend [Online Game...

Tomb Raider Experience Pack [Dow...

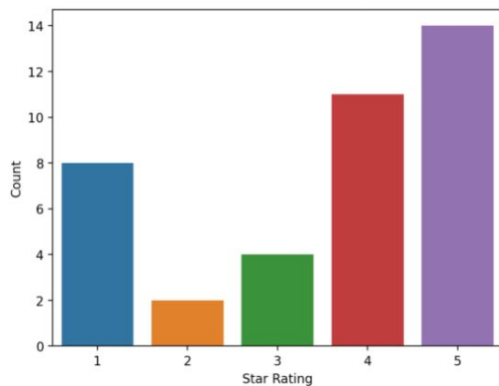
Tomb Raider Game of the Year [OnL...

Tomb Raider UT: Angel of Darkness

Amazon Video Game Reviews

Show Review Info

Review Info for Tomb Raider Underworld



Average Rating 3.5384615384615383

Positive Review Topics (4 & 5 Stars)

positive_feedback 0.0348
difficulty 0.0231

Pick a Game Title to Show Review Info About

Game Titles

Tomb Raider

Positive Review Topics (4 & 5 Stars)

positive_feedback 0.0352
game_content 0.0346
performance 0.0321
critique 0.0251
online 0.0229
worthwhile 0.0175
difficulty 0.0164
negative_feedback 0.0132
dlc 0.0121
platform_availability 0.0087

Negative Review Topics (1 & 2 Stars)

worthwhile 0.0376
game_content 0.0342
negative_feedback 0.0342
platform_availability 0.0338
online 0.0296
performance 0.0185
critique 0.0169
positive_feedback 0.0159
difficulty 0.0079
dlc 0.0039

Pick a Game Title to Show Review Info About

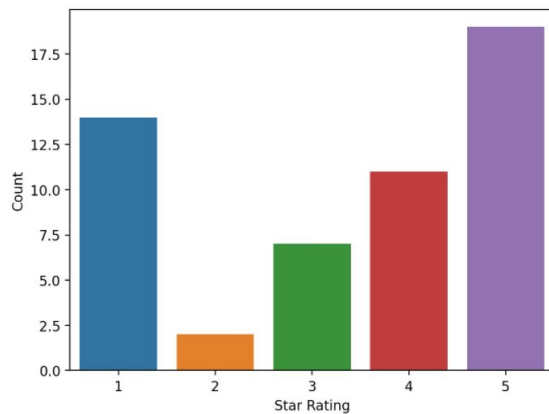
Game Titles

Tropico 5

Amazon Video Game Reviews

Show Review Info

Review Info for Tropico 5



Average Rating 3.358490566037736

Pick a Game Title to Show Review Info About

Game Titles

Tropico 5

Positive Review Topics (4 & 5 Stars)

	0
dlc	0.0518
difficulty	0.0333
critique	0.0315
game content	0.0305
online	0.0281
worthwhile	0.0253
negative feedback	0.0236
positive feedback	0.0204
platform availability	0.0080
performance	0.0076

Negative Review Topics (1 & 2 Stars)

	0
platform availability	0.0303
online	0.0217
negative feedback	0.0174
performance	0.0157
game content	0.0060
critique	0.0050
difficulty	0.0046
dlc	0.0043
worthwhile	0.0013
positive feedback	0.0012



fastest-selling PC game of all time.

\$303 million net profit

'Cyberpunk 2077' Sets New Record With
One Million Concurrent Players



CYBERPUNK
2077

Dear gamers,

First of all, we would like to start by apologizing



Cyberpunk 2077 Creators Lose \$51 Million In
Refunds After Game's Disastrous Launch

banned from the PlayStation store.

Future Work

- Deploy web app to Heroku
- Adapt code to update new Amazon reviews daily
- Scattertext



Thank You

