



WEB SCRAPING AMAZON ALEXA PRODUCT REVIEWS

AJAY RANA – STA 6233

RESEARCH QUESTIONS

- What users/buyers think of "Amazon Echo" device ?
- Are they happy with product or discontent ?

PROBLEMS/CHALLENGES

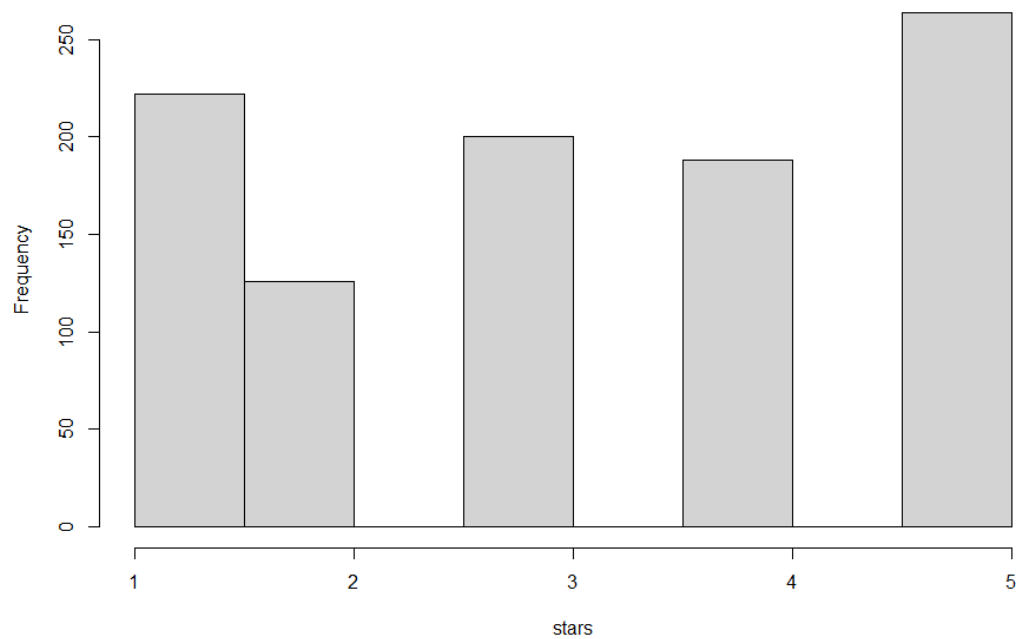
1. I was looking to use rselenium to navigate through multiple Amazon products, but the package was not installing correctly with multiple attempts. Hence used Product code to pass to the URL for making robust code.
2. Getting blocked out of Amazon website due to multiple requests and bot detection policy. I set throttle of 3 seconds between the navigation of review pages to overcome this issue.
3. R studio was getting unresponsive since the products had more than 2400 Pages of reviews. I had to limit the reviews to 100 pages.
4. Because of the lower number of reviews scrapped results were not same as the overall response of product

SUMMARY OR SCARPING

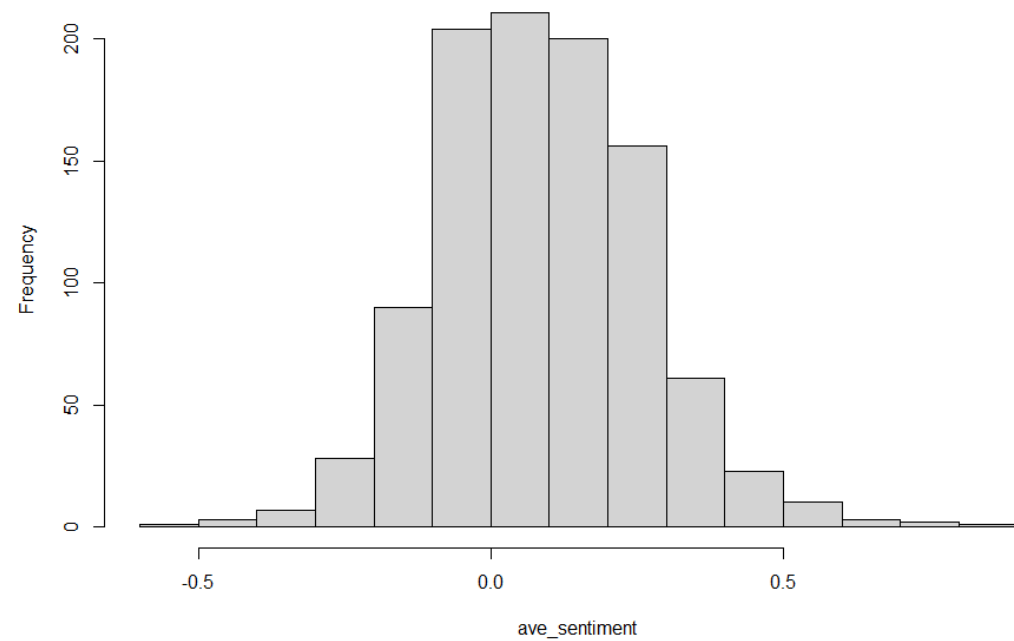
- Used Amazon website to scrape reviews of Amzon Alexa device
 - To get to specific Amazon device, used Product ID from the URL
- Data Scraped:
 - Review Title
 - Author (reviewer)
 - Date of Review
 - Verified Purchase
 - Format(Color & Configuration)
 - Stars
 - Comments
 - Helpful
- Limitations :
 - Only scrapped first 100 pages of reviews

PLOTS FOR REVIEW STARS AND AVERAGE SENTIMENT

Histogram of stars



Histogram of ave_sentiment



TOP 5 NEGATIVE REVIEWS

1: -.377

Their trade in program is a shame, I sent a device back in the original packaging that was in prime condition but they said it had cracks or scratches and returned the device and not even in the same packaging I sent it with. BBB complaint filed. They did respond to the complaint and said all decisions are final no matter what proof I supply.

2: -.408

Not worth the extra money over the show 8 It is not follow you like the videoIt is off sad when it's supposed to be straight I think because the eye is to one side and not centeredDoes not always follow you only does it when it feels like it just not worth the money

3: -.428

Was working okay for the initial few months, but have significant lag, voice recognition and wifi issues. Have restarted the devices multiple times with no effect.

4: -.458

I had owned an Echo Show 3 with a Zigbee hub. I replaced it with the Echo Show 10 (3rd Gen). It does not respond to my voice about 25% of the time and when the screen rotates in response to my voice, it is usually 90 degrees off. Not even as good as the Echo Show 3. In some cases, worse. Very disappointed.

5: -.544

I returned it after 2 days; pretty disappointed. At least 2 major complaints:1 - the remote viewing of camera does not pan, it once showed up an arrow, but disappeared forever after I tried to swipe to pan.2 - It certainly was annoying when I tried touch the screen, but the follow me stuff moved the screen like playing cat and mouseOne thing not related to this product directly, but should be implemented for all alexa devices - let me change my email account.Anyways, I will see if Amazon fixes these and other bugs that I could even remember now (like cast youtube?) before buying it again.

TOP 5 POSITIVE REVIEWS

1: +.826

We absolutely love our new Alexa. The picture quality is beautiful! Her ability to turn towards the person talking is fascinating let alone very convenient. But the most satisfying aspect is the quality of the sound that is emitted from the speaker. My husband, who has Alzheimers, has found his best friend!

2: +.745

I really like what they did to the 3 Gen ...Alexa, it really IMPROVE my security system around my home.....THANKS....

3: +.729

Love the new echo show 10 3rd gen, it's very loud but the bass could be better. Other then that it's a very great device my favorite thing is the screen following me while I'm on a call or looking at a video, the quality is amazing. This is definitely worth the \$250.

4: +.649

At first the Echo 10 was having trouble turning in the right direction of sound, but it appears to be learning quickly and is doing much better in only a weeks use. Now it turns quickly when I first speak to it. It does a good job of following me when I'm working in the kitchen and moving from one counter to the other. The sound quality is great, the picture is wonderful as well. So far I am enjoying the new Echo 10 very much.

5: +.622

I am very pleased with the new Gen 3 Echo Show. The 10.1 screen is very nice, and the voice follow functions very well. I have upload multiple pictures which provide a nice backdrop in between screen updates. The video quality is crisp (HD quality) and the multiple stream apps work wonderfully. I am pleased with the product and am impressed with Gen 3!

Lessons Learned/Conclusion:

- Overall, it was a good learning project for me as I learnt writing functions in R
- From the first 100 pages of reviews, it seems that the sentiment is natural for the product (Echo Show 10 (3rd Gen) | HD smart display with motion and Alexa | Glacier White)
- The histogram of stars shows that the reviews are almost equally distributed. However, the Average sentiment histogram is a little right skewed after mid point.
- Hence, we can conclude that the buyers are happy with the product and there is a high chance that they would recommend the product to others.

THANK YOU

AJAY RANA