

Amazon Product Reviews Scraper

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Packages

```
library(pacman)
library(pander)
pacman::p_load(RCurl, XML, dplyr, rvest, purrr)
```

R-Function to Scrape Amazon Product Review

```
amz_reviews_scraper <- function(page_num) {

  # verified purchase reviews only
  #url <- "https://www.amazon.com/Google-GA00439-US-Chromecast-3rd-Generation/product-reviews/B015UKRNGS"

  # put product reviews url here (all reviews)
  url <- "https://www.amazon.com/Google-GA00439-US-Chromecast-3rd-Generation/product-reviews/B015UKRNGS"
  url_reviews <- paste0(url, page_num)

  # read url and each page as html
  doc <- read_html(url_reviews)

  # parse the content
  map_dfr(doc %>% html_elements("[id~='customer_review']"), ~ data.frame(
    # extract title
    review_title = .x %>% html_element(".review-title") %>% html_text2(),

    # extract review
    review_text = .x %>% html_element(".review-text-content") %>% html_text2(),

    # extract ratings
    review_star = .x %>% html_element(".review-rating") %>% html_text2(),

    # extract date of review
    date = .x %>% html_element(".review-date") %>% html_text2() %>% gsub(".*vom ", "", .),

    # extract author of review
    author = .x %>% html_element(".a-profile-name") %>% html_text2(),

    # extract page number of review page
    page = page_num
  )) %>%

  # return as table
  as_tibble %>%
  return()
}
```

Combine Reviews into Dataframe and Export as CSV File

```
# start timer
start.time <- Sys.time()

# put number of page here (each page extract 10 reviews)
page_num <- 20

# create data frame and append each review to the same data frame
df_total <- data.frame()

# loop over number of pages until desired number
for (x in 1:page_num) {
  # run scraper in each
  each_page <- amz_reviews_scraper(page_num = x )

  # turn tibble into data frame
  df <- data.frame(each_page)

  # combine with original data frame
  df_total <- rbind(df_total, df)
}

# export to csv - make sure to specify the file name
write.csv(df_total, "google_chromecast.csv", row.names = FALSE)

# end timer
end.time <- Sys.time()
time.taken <- round(end.time - start.time,2)
print(paste0("Total time allotted: ", time.taken))
```

```
## [1] "Total time allotted: 11.69"
```

```
# view data frame
head(df_total, 15) %>% select(review_text, review_star) %>%
  pander(style = "grid", caption = "Example of Amazon Web-Scraped Product Reviews")
```

Table 1: Example of Amazon Web-Scraped Product Reviews

review_text	review_star
I love the Chromecast and I have one installed on every TV in my home. Flawless casting YouTube, Netflix, Twitch, etc. I have a 60mb download internet connection and I have used Chromecast with both a wired (you need a separate adapter) and a wireless connection. You can find applications on Android that you can cast just about any video from the internet to a Chromecast. Now if only they would support Amazon Prime Video...EDIT: They've gone and done it, ladies and gentlemen! Google and Amazon have worked it out and now we can cast Prime Video to these devices! I'm in hog heaven!	5.0 out of 5 stars
The ad says "Stream from your phone to your TV. Just like that." Lots of articles tell you that the benefit of this over a fire stick is that you don't need an internet connection because you cast right from your phone. Sadly, these things are wrong, you need an internet connection at your house, so it's not like you can just cast from your phone with your unlimited data plan. I get unlimited internet through my cell phone because I live outside of the city in a small town that doesn't have internet service. So I ordered this with the belief that I could mirror my phone to my TV by getting Chromecast which would be awesome because I could stream Netflix and Amazon straight to my TV... or so I thought. Turns out you cannot stream directly to a TV with Chromecast UNLESS you have internet AND a wi-fi router. This information came directly from Google Chromecast tech support. Why the hell Google would set this up like that I have no idea. Had I known this, I would never have wasted \$35 on this device. So please be aware of these facts BEFORE you decide to invest your money in this thing.	3.0 out of 5 stars
I get unlimited internet through my cell phone because I live outside of the city in a small town that doesn't have internet service. So I ordered this with the belief that I could mirror my phone to my TV by getting Chromecast which would be awesome because I could stream Netflix and Amazon straight to my TV... or so I thought. Turns out you cannot stream directly to a TV with Chromecast UNLESS you have internet AND a wi-fi router. This information came directly from Google Chromecast tech support. Why the hell Google would set this up like that I have no idea. Had I known this, I would never have wasted \$35 on this device. So please be aware of these facts BEFORE you decide to invest your money in this thing.	1.0 out of 5 stars

review_text	review_star
<p>I travel quite a bit and bought Chromecast to be able to use hotel TVs instead of my small phone screen or tablet. Not so fast. At the very end of setup I got a message that Chromecast cannot communicate with my Android phone because of AP (Access Point) Client Isolation feature which prevents WIFI clients on the same router from communicating with each other. It is a security feature commonly used in hotels and other similar situations. Not Google's fault, but they should clearly warn about it as it is very common. Interestingly, in the initial setup Chromecast acts as its own access point and does not need another network, so they could do it differently...</p> <p>Returning it and will check Amazon Fire Stick which needs only one WIFI connection and communicates with its remote via Bluetooth</p>	1.0 out of 5 stars
<p>I did not realize that the big three, google, apple, and amazon are locked in a death struggle for content and seem to make sure that whatever they control won't work on the other guys product. They all say you can use screen mirroring, but it I went through many you-tube videos and anything else I could find and the best I could do was to get it to work in reverse I could get the nice big picture on my 60 inch to show up on my iphone but not the other way. My suggestion is to decide what you want to watch, see who has a dedicated app for that and buy their device, hoping it will work and knowing it will probably be obsolete in a matter of months, of course if you want to watch something else, you might have to do it again. www this approach is expensive.</p>	2.0 out of 5 stars
<p>Fun to use but doesn't stream Amazon Prime from Google Home app. If you download separate Chromecast streaming app you might be able to mirror cast from smartphone Prime Video app but haven't been successful so far. So I still have Roku to stream Amazon Prime but Chromecast streams everything else. Netflix, Hulu, Vudu, HBO Now, etc. Update: Chromecast streams Amazon Prime now!!!</p>	4.0 out of 5 stars

review_text	review_star
<p>Finally, can purchase Google products from the comfort of Amazon. As for device itself - it does, what it's intended for; used to have a first gen of Chromecast few years back - current gen. seems to be faster and more stable (used to get a lot of connection errors on previous generation - have never seen anything like that on new gen.) One of small issues - I planned to cast the movie audio track to my speaker with built-in chromecast and video to my TV (with chromecast dongle connected to it), but it seems it's impossible by the means of Google home app - not a showstopper, but somewhat strange for a company, that tries to build streaming device infrastructure .</p>	4.0 out of 5 stars
<p>Product replaced my old chomecast which lacked a couple of features I needed. This one was just as easy to install (<5mins). Has worked perfectly ever since. Delivery was fast as promised. Product performs well and seems to be faster on my internet that the old chromecast - the old one occasionally interrupted & temporarily froze videos despite my 70/70 Mbps synchronous high speed connection. With this Chromecast that is not happening. Nice!</p>	5.0 out of 5 stars

review_text	review_star
<p>UPDATE: I now have an LG V40 ThinQ with Android 10.0 and the Chromecast is still great. I can send almost anything on my phone to the Chromecast and my TV. It is wonderful. I was looking for a way to send videos from my Android phone to my 2013 Samsung Smart TV. I use Netflix and my TV has an old, outdated version. I also use Prime Video and Kodi which my TV doesn't have. This Chromecast allows me to watch both of these and more on my TV. It was simple to install. I plugged it into my TV's HDMI socket and the power into my home's AC outlet. Then installed Google Home on my phone and followed the instructions. It took some fiddling with the programs but it works great. I read in one of the other reviews that it didn't work plugging the power cable into the TV's USB port. They were right and wrong. The Chromecast uses a 1 amp power supply. My TV has 2 USB ports; a 1 amp and a 0.5 amp. When I used the 1 amp port, it worked the same as plugging it in to an outlet. Now Netflix works simply as per the instructions. However, to get the others to work needs a little ingenuity. I have an HTC 10 phone, but this should work with others. I start Google Home first. Then go into my phone's settings to where the VPN and data exchange settings are. My phone calls the setting "HTC Connect". It tells the phone where to play the media. When you choose it, it lists the Phone, DNLA devices and the Chromecast. When you pick Chromecast, the phone's screen gets played, in real time, on the TV along with the phone. Now, anything you see on your phone gets played on your TV also. It's like using a phone with a 40 inch screen. Along with movies, you can stream music, photos, games, etc. I will be getting a new phone in a few days and will update these instructions when it arrives. UPDATE: I purchased a new LG V40 ThinQ cell phone. And it works with Chromecast just like my HTC phone did. You can stream with supported apps like Netflix or share using settings. The setting is under "Connected Devices". It is called "Screen Sharing" and Chromecast is listed like it was on my HTC. Obviously, I cannot promise that it will work with all phones, but it seems likely that it will.</p>	5.0 out of 5 stars

review_text	review_star
<p>Works exactly the way you would expect. Much easier to set up than previous generations. Have used Chromecasts as my only tv for years. So easy even my mom and boyfriend's mom can use it. You need:-Your house needs WiFi.-You need a smart phone that is logged onto your wifi (doesn't have to have an active plan).-Your tv needs an available HDMI port.-You need to have (and pay for, if applicable) the apps you want to stream (Youtube, Netflix, Hulu, etc).-10 to 30 minutes of patience and two brain cells. Included:-You can use either a regular wall outlet or your tv's USB port for charging. COMES WITH the charging cable and USB to wall converter box (same as charging a phone).-The ability to cast a phone screen, a phone app, the computer screen, a computer app, a computer file or Power Point.-Step by step setup instructions on your tv screen.</p>	5.0 out of 5 stars

review_text	review_star
Really easy to setup using the Google Home app. I have a Google Home mini(smart speaker) that works with this device and allows you to play and pause just by speaking, which is really nice.I like the idea of the Google Chromecast. I think it's a neat idea and it is really reliable (more so than Amazon fire TV). As long as you understand that this IS NOT a standalone device, you should be happy with it. The way it works is-you use your iOS or Android device with a compatible app (look for the cast icon), establish a connection, and then you use your phone as a remote. The Chromecast has no user interface to speak of. You pick what content you want on another device and then cast to the Chromecast. If you are watching a tv series on Netflix for instance, when the episode you are watching finishes, the next one will automatically play. You can also cast from the Chrome web browser which will let you access things like Prime Video which doesn't have casting capabilities in the mobile app. I would recommend using an app over the browser when you can, because it's a smoother experience.There are a few extras like being able to mirror the screen from your mobile device to your tv, if that is something you have a need for. You can also view your google photos in a slideshow while the chromecast is inactive. You can do this in the settings for the chromecast in the google home app. I think this is worth \$35, and I would recommend it if you can deal with a slightly less conventional TV/Movie watching experience. After using this a while, I prefer it to an android tv or roku type of OS. I just think they should beef up the Google Assistant features(more like Android TV).Edit: In the time since my original review, Amazon prime video now allows for casting from the iOS and Android mobile apps. Amazon and Google are on better terms now and as a result the fire tv and echo shows now have the YouTube app again and Amazon is selling Google hardware on this site again too. Just wanted to update my review.	5.0 out of 5 stars

review_text	review_star
I had high hopes, only to have them dashed by a crappy product. Immediately upon plug-in, it took about 10 minutes to “load” new software updates, restarting several times. Seriously, brand new product, needs 10 minutes of updates on first plug-in? Then Google wants the Home app on your phone. Ok, load that. Then you need to go through all sorts of really invasive questions and setup that Google says will give a “better experience”. B.S. Google only wants info from to you maximize their profit. lastly, there is no real content on the device itself. Just casting from the phone or tablet. And not from every app, just ones that are casting-enabled.I was VERY disappointed. ROKU or Amazon Fire Stick is WAYYYY better. Don’t waste your time with this JUNK.	1.0 out of 5 stars
I am absolutely delighted with my Google Chromecast (3rd Generation)!Set up is a breeze and very user-friendly. Simply hook up the Google Chromecast (3rd Generation) to your TV and follow the simple install instructions. Then download the app to your phone such as Netflix, Disney +, Amazon Prime Video, etc. ... open the app on your phone ... select the video that you want to watch ... cast it to your TV ... and just sit back and enjoy! Your phone is your remote so you’ll want to keep a phone charger nearby.Nothing has to be cracked, hacked, or unlocked. Everything streams from your phone to the TV via your Wi-Fi. It works seamlessly with both iPhone and Android. The resolution is crystal, life like, clear. I absolutely love this product!	5.0 out of 5 stars

review_text	review_star
I am not a tech person at all nor do I live in the best area for tech things to work! For starters I ordered a subscription thinking it would work on my tv. In thinking it was a smart tv in all it would work right?? Wrong of course! Well after contacting them I found out about the Google Chromecast and how it will solve my problem. Well after a few failed attempts (which I might add again I am not tech smart) I was able to get everything set up right through my phone and was pretty pleased with myself in doing so. What was really cool was not only was I able to get the subscription, I was able to do a few other things on my tv like add pictures to my screen and a whole bunch of other stuff that I have not even heard of lol. The picture quality is really good. However i still do live in an area that my wifi sucks and this runs of that. So I do get a few pauses during movies and such. Nothing new I dont deal with watching other streaming channels. Still hoping one day with all this tech stuff they can help people like me who dont live in the city!	5.0 out of 5 stars

review_text	review_star
My god... This is so	5.0 out of 5 stars
<p>amazing... I love that stupid little puck.Originally I was going to buy an Amazon Firestick buuuut sorry Amazon, Google is connected to everything what did you expect me to do. Don't get me wrong I still own 2 other sticks for my parent's TVs in their bedroom and living room and its very easy to use simply by the use of the remote.Buuuuuut, THE CHROMECAST HAS NO LIMIT. There are TOO many apps you can connect with the casting tech. Its easy to cast, fast, and even better in video quality when compared to your phone. Sometimes a video doesn't immediately load 720p or 1080p on your phone but it's immediately HD when cast. You can turn off your phone and still see whatever you casted last. You can even connect to your TV remote so you can pause and stop casting with your TV remote. Also, that screen mirroring comes in handy every now and then!Honestly I even leave in the ambient mode just for decoration. It's AMAZING. I can watch and cast apps not on my old blue ray not my ps4 or even the Firestick. Switching from Hulu to Netflix to SlingTV to YouTube is INSTANT. No interruptions, very rare buffering and loading is quick with average internet speed. Honestly I really do reccomend this more than the Amazon Firestick. Sorry Amazon, step it up. They BARELY added YouTube as an app on the stick! Here you can even cast your computer screen on the TV! I can't reccomend it enough. Tip: don't buy the 4k version if you dont have a 4k TV.</p>	