

Week_9_Assignment

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DATA607 - WEEK 9 Assignment - Working with the NY Times API

Introduction

For this week's assignment, I access the NY Times Movie reviews.

Plan

1. After obtaining an API key from the NY Times website, create a JSON call to the URL
2. Each call is then loaded into a data frame called, NY_TIMES_CRITICS_df
3. Next loop over the links to the articles in the data frame and scrape the full article contents
4. Text Mine the reviews to see if I can discern a pattern.
5. Conclusion

1. Obtain the API key and create a baseURL

```
#The
NYTimes_KEY <- "3f11a8ef5cf94222beda574c715815e8"
baseURL = paste0("https://api.nytimes.com/svc/movies/v2/reviews/search.json?api-key=", NYTimes_KEY, sep="")
```

2. Any call to the baseURL results in only 12 articles returned. In order to get more, a parameter called "&offset=" must be appended to the baseURL with the number of a page to navigate to.

```
#Create an empty list called pages
pages <- list()
#create a for Loop which makes 1000 calls to the API
for(i in seq(0,100,2)){
  NY_TIMES_CRITICS <- fromJSON(paste0(baseURL, "&offset=", i))
  #Add the results of the calls to the pages list
  pages[[i+1]] <- NY_TIMES_CRITICS$results
}
```

3. Bind each list into one data frame, NY_TIMES_CRITICS_df

```
NY_TIMES_CRITICS_df <- rbind_pages(pages)
dim(NY_TIMES_CRITICS_df)
```

```
## [1] 1020    11
```

4. Unexpectedly, I got a lot of duplicate entries in the data frame which when removed, decreased the number of articles to 119.

```
NY_TIMES_CRITICS_df <- NY_TIMES_CRITICS_df[ !duplicated(NY_TIMES_CRITICS_df$link$url), ]
dim(NY_TIMES_CRITICS_df)
```

```
## [1] 119 11
```

#in the Link\$url column of the dataframe, there are links to the complete review which was not available in the initial API calls

```
head(NY_TIMES_CRITICS_df$link$url,5)
```

```
## [1] "http://www.nytimes.com/2018/10/25/movies/burning-review.html"
## [2] "http://www.nytimes.com/2018/10/25/movies/a-bread-factory-review.html"
## [3] "http://www.nytimes.com/2018/10/25/movies/monrovia-indiana-review-documentary.html"
## [4] "http://www.nytimes.com/2018/10/25/movies/border-review.html"
## [5] "http://www.nytimes.com/2018/10/25/movies/shirkers-review.html"
```

5. As a test, I wanted to see if I could correctly identify the html node and scrape the full body of the review.

```
webpage <- read_html("http://www.nytimes.com/2018/10/25/movies/burning-review.html" )
article <- html_nodes(webpage, '.e2kc3s10')
```

```
body <- html_text(article)
```

```
head(body, 2)
```

```
## [1] "One of the most beautiful scenes in a movie this year □ in many years □ comes midway through □Burning.□ Two men and a woman are lazing around outside a home. They□re in the South Korean countryside, near the border with North Korea, where the squawk of propaganda drifts in and out from loudspeakers. Now, though, in the velvety dusk light, the sound of Miles Davis□s ethereal trumpet fills the air, and the woman begins swaying, taking off her shirt. She is dancing for the men, but mostly she□s dancing in what feels like ecstatic communion between her and the world." 
```

```
## [2] "Desire, ravenous and ineffable, shudders through □Burning,□ the latest from the great South Korean director Lee Chang-dong. Set in the present, the movie involves the complicated, increasingly fraught relationships among three characters whose lives are tragically engulfed as desire gives way to rage. The story has the quality of a mystery thriller □ somebody goes missing, somebody else tries to figure out why □ one accompanied by the drumbeat of politics. The larger, more agonizing question here, though, involves what it means to live in a divided, profoundly isolating world that relentlessly drives a wedge between the self and others."
```

6. With the successful test, I was able to scrape the full text of each article.

```
Body <- list()
for (i in seq(1,119)){
  print(NY_TIMES_CRITICS_df$link$url[i])
  getContent <- read_html(NY_TIMES_CRITICS_df$link$url[i])
  articles <- html_nodes(getContent, '.e2kc3s10')
  Body[i] <- list(html_text(articles))

}
```

```
## [1] "http://www.nytimes.com/2018/10/25/movies/burning-review.html"
## [1] "http://www.nytimes.com/2018/10/25/movies/a-bread-factory-review.html"
## [1] "http://www.nytimes.com/2018/10/25/movies/monrovia-indiana-review-documentary.html"
## [1] "http://www.nytimes.com/2018/10/25/movies/border-review.html"
## [1] "http://www.nytimes.com/2018/10/25/movies/shirkers-review.html"
## [1] "http://www.nytimes.com/2018/10/25/movies/vaya-review.html"
## [1] "http://www.nytimes.com/2018/10/25/movies/1985-film-review-cory-michael-smith.html"
## [1] "http://www.nytimes.com/2018/10/25/movies/the-dark-review.html"
## [1] "http://www.nytimes.com/2018/10/25/movies/viper-club-review-susan-sarandon.html"
## [1] "http://www.nytimes.com/2018/10/25/movies/trust-machine-review.html"
## [1] "http://www.nytimes.com/2018/10/25/movies/dont-go-review-stephen-dorff.html"
## [1] "http://www.nytimes.com/2018/10/25/movies/hunter-killer-review.html"
## [1] "http://www.nytimes.com/2018/10/25/movies/london-fields-review.html"
## [1] "http://www.nytimes.com/2018/10/25/movies/foreign-land-review-documentary.html"
## [1] "http://www.nytimes.com/2018/10/24/movies/johnny-english-strikes-again-review.html"
## [1] "http://www.nytimes.com/2018/10/24/movies/suspiria-review.html"
## [1] "http://www.nytimes.com/2018/10/23/movies/life-and-nothing-more-review.html"
## [1] "http://www.nytimes.com/2018/10/18/movies/wildlife-review-paul-dano.html"
## [1] "http://www.nytimes.com/2018/10/18/movies/nigerian-prince-review.html"
## [1] "http://www.nytimes.com/2018/10/18/movies/on-her-shoulders-review.html"
## [1] "http://www.nytimes.com/2018/10/18/movies/the-guilty-review.html"
## [1] "http://www.nytimes.com/2018/10/18/movies/the-waldheim-waltz-review.html"
## [1] "http://www.nytimes.com/2018/10/18/movies/galveston-review-ben-foster.html"
## [1] "http://www.nytimes.com/2018/10/18/movies/what-they-had-review.html"
## [1] "http://www.nytimes.com/2018/10/18/movies/caniba-review-documentary.html"
## [1] "http://www.nytimes.com/2018/10/17/movies/halloween-1978-review.html"
## [1] "http://www.nytimes.com/2018/10/17/movies/a-season-in-france-review.html"
## [1] "http://www.nytimes.com/2018/10/17/movies/halloween-review.html"
## [1] "http://www.nytimes.com/2018/10/17/movies/mid90s-review-jonah-hill.html"
## [1] "http://www.nytimes.com/2018/10/16/movies/can-you-ever-forgive-me-review-melissa-mccarthy.html"
## [1] "http://www.nytimes.com/2018/10/16/movies/charm-city-review-baltimore.html"
## [1] "http://www.nytimes.com/2018/10/16/movies/horn-from-the-heart-review-paul-butterfield.html"
## [1] "http://www.nytimes.com/2018/10/16/movies/the-price-of-everything-review-documentary.html"
## [1] "http://www.nytimes.com/2018/10/16/movies/impulso-review-documentary.html"
## [1] "http://www.nytimes.com/2018/10/11/movies/watergate-review-documentary.html"
## [1] "http://www.nytimes.com/2018/10/11/movies/barbara-review.html"
## [1] "http://www.nytimes.com/2018/10/11/movies/over-the-limit-review.html"
## [1] "http://www.nytimes.com/2018/10/11/movies/the-kindergarten-teacher-review.html"
## [1] "http://www.nytimes.com/2018/10/11/movies/classical-period-review.html"
## [1] "http://www.nytimes.com/2018/10/11/movies/bad-times-at-the-el-royale-review.html"
## [1] "http://www.nytimes.com/2018/10/11/movies/beautiful-boy-review-steve-carell.html"
## [1] "http://www.nytimes.com/2018/10/11/movies/the-oath-review-tiffany-haddish.html"
## [1] "http://www.nytimes.com/2018/10/11/movies/bikini-moon-review.html"
## [1] "http://www.nytimes.com/2018/10/11/movies/goosebumps-2-haunted-halloween-review.html"
## [1] "http://www.nytimes.com/2018/10/11/movies/the-sentence-review.html"
## [1] "http://www.nytimes.com/2018/10/11/movies/all-square-review.html"
## [1] "http://www.nytimes.com/2018/10/11/movies/sadie-review.html"
## [1] "http://www.nytimes.com/2018/10/11/movies/after-everything-review.html"
## [1] "http://www.nytimes.com/2018/10/10/movies/first-man-review-ryan-gosling-damien-chazelle.html"
```

```
## [1] "http://www.nytimes.com/2018/10/09/movies/22-july-review.html"
## [1] "http://www.nytimes.com/2018/10/09/movies/the-happy-prince-review-oscar-wilde.html"
## [1] "http://www.nytimes.com/2018/10/09/movies/liyana-review.html"
## [1] "http://www.nytimes.com/2018/10/04/movies/a-crooked-somebody-review.html"
## [1] "http://www.nytimes.com/2018/10/04/movies/studio-54-review.html"
## [1] "http://www.nytimes.com/2018/10/04/movies/wajib-review.html"
## [1] "http://www.nytimes.com/2018/10/04/movies/wobble-palace-review.html"
## [1] "http://www.nytimes.com/2018/10/04/movies/await-further-instructions-review.html"
## [1] "http://www.nytimes.com/2018/10/04/movies/private-life-review-kathryn-hahn-paul-giamatti.html"
## [1] "http://www.nytimes.com/2018/10/04/movies/venom-review-tom-hardy.html"
## [1] "http://www.nytimes.com/2018/10/04/movies/bayou-caviar-review.html"
## [1] "http://www.nytimes.com/2018/10/04/movies/above-and-beyond-nasas-journey-to-tomorrow-review.html"
## [1] "http://www.nytimes.com/2018/10/04/movies/shine-review.html"
## [1] "http://www.nytimes.com/2018/10/04/movies/trouble-in-vermont-review-bill-pullman-anjelica-huston.html"
## [1] "http://www.nytimes.com/2018/10/04/movies/viking-destiny-review.html"
## [1] "http://www.nytimes.com/2018/10/03/movies/a-star-is-born-review-lady-gaga-bradley-cooper.html"
## [1] "http://www.nytimes.com/2018/10/03/movies/the-hate-u-give-review-amandla-stenberg.html"
## [1] "http://www.nytimes.com/2018/10/03/movies/the-great-buster-a-celebration-review-documentary.html"
## [1] "http://www.nytimes.com/2018/10/02/movies/moynihan-review-documentary.html"
## [1] "http://www.nytimes.com/2018/09/27/movies/free-solo-review-alex-honnold-el-capitan.html"
## [1] "http://www.nytimes.com/2018/09/27/movies/bad-reputation-review-joan-jett.html"
## [1] "http://www.nytimes.com/2018/09/27/movies/monsters-and-men-review.html"
## [1] "http://www.nytimes.com/2018/09/27/movies/all-about-nina-review-mary-elizabeth-winstead.html"
## [1] "http://www.nytimes.com/2018/09/27/movies/summer-03-review.html"
## [1] "http://www.nytimes.com/2018/09/27/movies/scaffolding-review-israel.html"
## [1] "http://www.nytimes.com/2018/09/27/movies/smallfoot-review.html"
## [1] "http://www.nytimes.com/2018/09/27/movies/matangi-maya-mia-review-.html"
## [1] "http://www.nytimes.com/2018/09/27/movies/black-47-review.html"
## [1] "http://www.nytimes.com/2018/09/27/movies/306-hollywood-review.html"
## [1] "http://www.nytimes.com/2018/09/27/movies/cruise-review.html"
## [1] "http://www.nytimes.com/2018/09/26/movies/the-old-man-and-the-gun-review-robert-redford.html"
## [1] "http://www.nytimes.com/2018/09/26/movies/hold-the-dark-review.html"
## [1] "http://www.nytimes.com/2018/09/26/movies/night-school-review-kevin-hart-tiffany-haddish.html"
## [1] "http://www.nytimes.com/2018/09/20/movies/colette-review.html"
## [1] "http://www.nytimes.com/2018/09/20/movies/the-sisters-brothers-review-joaquin-phoenix.html"
## [1] "http://www.nytimes.com/2018/09/20/movies/quincy-review-quincy-jones.html"
## [1] "http://www.nytimes.com/2018/09/20/movies/tea-with-the-dames-review.html"
## [1] "http://www.nytimes.com/2018/09/20/movies/fahrenheit-11-9-review-michael-moore.html"
## [1] "http://www.nytimes.com/2018/09/20/movies/the-last-suit-review.html"
## [1] "http://www.nytimes.com/2018/09/20/movies/assassination-nation-review.html"
## [1] "http://www.nytimes.com/2018/09/20/movies/goyo-the-boy-general-review-philippines.html"
## [1] "http://www.nytimes.com/2018/09/20/movies/call-her-ganda-review.html"
## [1] "http://www.nytimes.com/2018/09/20/movies/the-song-of-sway-lake-review.html"
## [1] "http://www.nytimes.com/2018/09/20/movies/love-gilda-review-saturday-night-live-documentary.html"
```

```
## [1] "http://www.nytimes.com/2018/09/20/movies/the-house-with-a-clock-in-its-walls-cate-blanchett-jack-black.html"
## [1] "http://www.nytimes.com/2018/09/19/movies/life-itself-review-oscar-isaac-olivia-wilde.htm1"
## [1] "http://www.nytimes.com/2018/09/18/movies/garry-winogrand-all-things-are-photographable-review-documentary.html"
## [1] "http://www.nytimes.com/2018/09/17/movies/mandy-review-nicolas-cage.html"
## [1] "http://www.nytimes.com/2018/09/13/movies/the-land-of-steady-habits-review.html"
## [1] "http://www.nytimes.com/2018/09/13/movies/hale-county-this-morning-this-evening-review-ramell-ross.html"
## [1] "http://www.nytimes.com/2018/09/13/movies/the-public-image-is-rotten-review-sex-pistols.html"
## [1] "http://www.nytimes.com/2018/09/13/movies/museo-review-gael-garcia-bernal-alonso-ruizpalacios.html"
## [1] "http://www.nytimes.com/2018/09/13/movies/simple-favor-review.html"
## [1] "http://www.nytimes.com/2018/09/13/movies/letter-from-masanja-review.html"
## [1] "http://www.nytimes.com/2018/09/13/movies/where-hands-touch-review.html"
## [1] "http://www.nytimes.com/2018/09/13/movies/the-predator-review.html"
## [1] "http://www.nytimes.com/2018/09/13/movies/dont-leave-home-review.html"
## [1] "http://www.nytimes.com/2018/09/13/movies/i-think-were-alone-now-review-peter-dinklage.html"
## [1] "http://www.nytimes.com/2018/09/13/movies/the-children-act-review-emma-thompson.html"
## [1] "http://www.nytimes.com/2018/09/13/movies/science-fair-review.html"
## [1] "http://www.nytimes.com/2018/09/13/movies/american-chaos-review-documentary.html"
## [1] "http://www.nytimes.com/2018/09/13/movies/bel-canto-review-julianne-moore.html"
## [1] "http://www.nytimes.com/2018/09/11/movies/lizzie-review-chloe-sevigny-kristen-stewart-borden.html"
## [1] "http://www.nytimes.com/2018/09/11/movies/reversing-roe-review-abortion.html"
## [1] "http://www.nytimes.com/2018/09/11/movies/review-white-boy-rick.html"
## [1] "http://www.nytimes.com/2018/09/11/movies/when-you-read-this-letter-review.html"
## [1] "http://www.nytimes.com/2018/09/06/movies/five-fingers-for-marseilles-review.html"
## [1] "http://www.nytimes.com/2018/09/06/movies/blaze-review-ethan-hawke.html"
## [1] "http://www.nytimes.com/2018/09/06/movies/peppermint-review-jennifer-garner.html"
## [1] "http://www.nytimes.com/2018/09/06/movies/hal-review-documentary.html"
```

```
for (i in seq(1, 119)){
  NY_TIMES_CRITICS_df$Body[[i]] <- Body[[i]]
}
```

7.Final NY Times Data Frame

```
head(NY_TIMES_CRITICS_df,10)
```

```

##                                     display_title mpaa_rating critics_pick
## 1                               Burning    Not Rated           1
## 2      A Bread Factory, Part One                      1
## 4                               Monrovia, Indiana                  1
## 5                               Border          R           1
## 6                               Shirkers                  1
## 7                               Vaya                     1
## 8                               1985                    1
## 9                               The Dark                  0
## 10                          Viper Club          R           0
## 11 Trust Machine: The Story of Blockchain                  0
##                                     byline
## 1      MANOHLA DARGIS
## 2      BILGE EBIRI
## 4      A.O. SCOTT
## 5      GLENN KENNY
## 6  JEANNETTE CATSOULIS
## 7  JEANNETTE CATSOULIS
## 8      GLENN KENNY
## 9      TEO BUGBEE
## 10     BEN KENIGSBERG
## 11     BEN KENIGSBERG
##
##                                     headline
## 1      Review: In □Burning,□ Love Ignites a Divided World
## 2      Review: In □A Bread Factory,□ Local Artists Face Off Against the World
## 4  Review: □Monrovia, Indiana□ Is a Sharp, Lyrical Look at Small-Town America
## 5      Review: Sniffing Out Guilt in a Strangely Engaging □Border□
## 6      Review: In □Shirkers,□ Stolen Footage and Dashed Dreams
## 7      Review: In □Vaya,□ Three Travelers Find Danger in Johannesburg
## 8      Review: In □1985,□ a Young Man Hides a Plague From His Family
## 9      Review: In □The Dark,□ a Traumatized Teenager Becomes a Zombie
## 10     Review: □Viper Club□ Looks Behind the Scenes of a Press Kidnapping
## 11     Review: In Boosting Blockchain, □Trust Machine□ Chains Itself In
##
##                                     summary_short
## 1      The great South Korean director Lee Chang-don
##       g□s latest involves three characters subsumed by desire and rage.
## 2      An ambitious, sprawling film about the efforts of a community arts center to survive, □A B
##       read Factory□ is a major new work by a singular American artist.
## 4      Frederick Wiseman□s visit to Trump country finds that there is
##       more to life than politics, and more to democracy than ideology.
## 5      The film, adapted from a short story by the writer of □Let t
##       he Right One In,□ follows a security guard with an unusual gift.
## 6      Sandi Tan□s captivating documentary about the theft of her f
##       irst movie by a charismatic con man is both mystery and manhunt.
## 7      The fate of strangers are da
##       rkly intertwined in Akin Omotoso□s electric and empathetic film.
## 8      The film is a moving cinematic sketch of a HIV-infecte
##       d, closeted gay man living through the height of the AIDS crisis.
## 9      The main characters are
##       survivors of childhood abuse, weighty material for a slim film.
## 10     In this film about the kidnapping of an American reporter working in Syria, the
##        mother□s back-channel actions □ and reactions □ hold the focus.

```

```

## 11                               Alex Winter (of Bill & Ted fame)
explains blockchain technology in this unconvincing documentary.
##   publication_date opening_date      date_updated link.type
## 1     2018-10-25    2018-11-09 2018-10-27 16:44:24  article
## 2     2018-10-25    2018-10-26 2018-10-27 16:44:23  article
## 4     2018-10-25    2018-10-26 2018-10-25 14:32:03  article
## 5     2018-10-25    2018-10-26 2018-10-27 16:44:22  article
## 6     2018-10-25    2018-10-26 2018-10-27 16:44:21  article
## 7     2018-10-25        <NA> 2018-10-25 11:04:08  article
## 8     2018-10-25        <NA> 2018-10-27 16:44:19  article
## 9     2018-10-25    2018-10-26 2018-10-25 16:38:03  article
## 10    2018-10-25    2018-10-26 2018-10-27 16:44:22  article
## 11    2018-10-25        <NA> 2018-10-27 16:44:22  article
##
##                                         link.url
## 1             http://www.nytimes.com/2018/10/25/movies/burning-review.html
## 2             http://www.nytimes.com/2018/10/25/movies/a-bread-factory-review.html
## 4 http://www.nytimes.com/2018/10/25/movies/monrovia-indiana-review-documentary.html
## 5             http://www.nytimes.com/2018/10/25/movies/border-review.html
## 6             http://www.nytimes.com/2018/10/25/movies/shirkers-review.html
## 7             http://www.nytimes.com/2018/10/25/movies/vaya-review.html
## 8 http://www.nytimes.com/2018/10/25/movies/1985-film-review-cory-michael-smith.html
## 9             http://www.nytimes.com/2018/10/25/movies/the-dark-review.html
## 10    http://www.nytimes.com/2018/10/25/movies/viper-club-review-susan-sarandon.html
## 11    http://www.nytimes.com/2018/10/25/movies/trust-machine-review.html
##
##                                         link.suggested_link_text
## 1             Read the New York Times Review of Burning
## 2             Read the New York Times Review of A Bread Factory, Part One
## 4             Read the New York Times Review of Monrovia, Indiana
## 5             Read the New York Times Review of Border
## 6             Read the New York Times Review of Shirkers
## 7             Read the New York Times Review of Vaya
## 8             Read the New York Times Review of 1985
## 9             Read the New York Times Review of The Dark
## 10            Read the New York Times Review of Viper Club
## 11 Read the New York Times Review of Trust Machine: The Story of Blockchain
##
##   multimedia.type
## 1 mediumThreeByTwo210
## 2 mediumThreeByTwo210
## 4 mediumThreeByTwo210
## 5 mediumThreeByTwo210
## 6 mediumThreeByTwo210
## 7 mediumThreeByTwo210
## 8 mediumThreeByTwo210
## 9 mediumThreeByTwo210
## 10 mediumThreeByTwo210
## 11 mediumThreeByTwo210
##
##   multimedia.src
## 1 https://static01.nyt.com/images/2018/10/26/arts/26burning-top/26burning-top-mediumThreeByTwo210-v3.jpg
## 2 https://static01.nyt.com/images/2018/10/26/arts/26bread2/26bread2-mediumThreeByTwo210-v2.jpg
## 4 https://static01.nyt.com/images/2018/10/26/arts/26monrovia1/26monrovia1-mediumThreeByTwo210-v3.jpg

```

```
## 5 https://static01.nyt.com/images/2018/10/26/arts/26border/26border-mediumThreeByTwo210-v3.jpg
## 6 https://static01.nyt.com/images/2018/10/24/arts/shirkers1/shirkers1-mediumThreeByTwo210.jpg
## 7 https://static01.nyt.com/images/2018/10/26/arts/26vaya1/vaya1-mediumThreeByTwo210.jpg
## 8 https://static01.nyt.com/images/2018/10/26/arts/26nineteeneighty/26nineteeneighty-mediumThreeByTwo210-v2.jpg
## 9 https://static01.nyt.com/images/2018/10/25/movies/thedark1/thedark1-mediumThreeByTwo210.jpg
## 10 https://static01.nyt.com/images/2018/10/26/arts/26viperclubpix1/26viperclubpix1-mediumThreeByTwo210-v2.jpg
## 11 https://static01.nyt.com/images/2018/10/26/arts/26trustmachine/26trustmachine-mediumThreeByTwo210.jpg
##     multimedia.width multimedia.height
## 1      210          140
## 2      210          140
## 4      210          140
## 5      210          140
## 6      210          140
## 7      210          140
## 8      210          140
## 9      210          140
## 10     210          140
## 11     210          140
##
```

Body

1

One of the most beautiful scenes in a movie this year in many years comes midway through *Burning*. Two men and a woman are lazing around outside a home. They're in the South Korean countryside, near the border with North Korea, where the squawk of propaganda drifts in and out from loudspeakers. Now, though, in the velvety dusk light, the sound of Miles Davis's ethereal trumpet fills the air, and the woman begins swaying, taking off her shirt. She is dancing for the men, but mostly she's dancing in what feels like ecstatic communion between her and the world., Desire, ravenous and ineffable, shudders through *Burning*, the latest from the great South Korean director Lee Chang-dong. Set in the present, the mov

ie involves the complicated, increasingly fraught relationships among three characters whose lives are tragically engulfed as desire gives way to rage. The story has the quality of a mystery thriller — somebody goes missing, somebody else tries to figure out why — one accompanied by the drumbeat of politics. The larger, more agonizing question here, though, involves what it means to live in a divided, profoundly isolating world that relentlessly drives a wedge between the self and others., The story opens the day that a young delivery man, Jongsu (Ah-in Yoo), meets a young woman, Haemi (Jong-seo Jun), in a chaotic, anonymous city. She works as store barker, dancing in scanty clothing while tempting shoppers with raffle prizes. Haemi hails Jongsu and reveals that they know each other from their hometown — he has no memory of her — then blurts out that she's had plastic surgery. Later, she reminds him that when they were young he once crossed a street to tell her she was ugly, news she casually delivers while searching for a reaction that never comes., Jun gives a physically open, natural performance that works as a lovely counterpoint to Haemi's cryptic actions — she has an unseen cat, peels an invisible tangerine — while Yoo invests Jongsu with a reserve that suggests social awkwardness that can seem self-interested. (Slack-jawed, Jongsu hunches like a man in retreat or a teenager who hasn't settled into his adult body.) Despite his seeming indifference to Haemi, he responds to her friendliness, and before long they're in bed. This nascent intimacy abruptly ends when she leaves on a trip. When she returns with a wealthy enigma, Ben (Steven Yeun), the three form an awkward triangle, a configuration that derails Jongsu., The movie is based on *Barn Burning*, a 1992 short story by Haruki Murakami that throbs with unspoken menace and shares its title with a far more blatantly violent 1939 story by William Faulkner. Lee nods at Faulkner (a favorite author of Jongsu whom Ben begins reading), but takes most of his cues from Murakami's story. Lee retains its central triangle and some details, while making it his own by, for instance, changing the Miles Davis music. Mostly, Lee slowly foregrounds the uneasy violence that flickers through the Murakami to stunning, devastating effect., Written by Lee and Oh Jung-mi, *Burning* unfolds in realistic scenes that don't necessarily seem to be advancing a strong theme. Things happen, casually. For the most part, the story follows Jongsu, who's as closed-down as the door in the movie's opening image. Seemingly friendless, he says he wants to write. But his father's legal troubles have forced Jongsu to take over the family's run-down farm alone. —What kind of writing are you going to —create, — his father's lawyer mockingly asks Jongsu, as if to remind him of his place in life. The lawyer also compares Jongsu's father to a protagonist in a story, a remark that suggests our stories are written for us., For the lawyer, fiction writing is clearly useless, and it certainly has no instrumental value for Jongsu's father. That the movie is based on a story by a celebrated writer invests this seemingly uneventful scene with dark comedy, even if the larger point is the question of free will. (Is Jongsu writing his own story, or has it been determined by his father, whose rage landed him in jail?) The movie engages this question more directly once Ben — with his silky smiles and laid-back imperiousness — begins disrupting the equilibrium. —There is no right or wrong, — Ben tells Jongsu, after confessing that he torches derelict greenhouses. —Just the morals of nature.—, An understated visual stylist, Lee shoots and edits this scene simply but elegantly, initially cutting between the two men, who are each isolated in the frame. They're sitting fairly close yet seem worlds apart. It's the same night as Haemi's ravishing dance. But now she's asleep inside, the sun has set, and the men are alone in an exchange that grows darker, figuratively and literally, as Jongsu talks about his unhappy childhood and Ben shares his worldview. As the scene progresses, Lee joins the men visually in two-shots that leave one or the other blurred, only to punctuate this back and forth with an image of them seated side by side like mirrored images., Here and throughout, Lee allows the actors to fill in their characters, letting them add pointillist detail to their portraits rather than smothering them in close-ups or self-regarding directorial virtuosity. All three leads are sensational (Yeun turns yawns and soft laughter into nightmares), giving performances that retain a sense of mystery that dovetails with the movie's ambiguity. Again, things happen, often casually. Yet while each event expands the narrative — filling in the larger picture with nods at sexual relations, class divisions and a river of people — they don't necessarily explain what happens or answer the fundamental question that burns through this brilliant movie.

2

Sprawling over four hours and screening in two parts, Patrick Wang's *A Bread Factory* has an immense cast, a deliberate pace and thematic ambition to spare — but it also has a ground-level, plain-spoken modesty that renders it hypnotic., The Bread Factory of the film's title hasn't made any actual bread for decades. Rather, for 40 or so years, it has served as a community arts center for the fictional town of Checkford, N.Y. Locals perform in its plays. Children volunteer backstage. Visiting artists give classes. Even school board meetings — where the Factory's fiscal fate is decided — are held there., Managing this quaint but essential institution are the headstrong theater director Dorothea (Tyne Daly) and her actress partner Greta (Elisabeth Henry). Part One, subtitled "For the Sake of Gold," focuses on their attempt to combat the efforts of a well-funded, Chinese-owned avant-garde arts duo named May Ray to open a space next door and siphon off a key grant that allows the Factory to survive. This forces Dorothea and Greta, along with their friend Jan (Glynnis O'Connor), the longtime editor of the Checkford Journal, to try to persuade members of the school board to vote against May Ray, who have powerful lawyers and movie stars working for them., The film embodies the eclectic nature of the work on display at the Factory. We see a performance of Euripides's *Hecuba* as it is blocked, rehearsed and ultimately staged. An independent filmmaker (played by a delightfully crazy Janeane Garofalo) conducts a testy Q. and A. after a poorly attended screening. A shy writer — the kind who literally faints upon hearing that someone knows his work — reads a poem about a dying gondola., Wang ("In the Family") understands that the more we watch these artists and amateurs' efforts — even if they're somewhat ridiculous — the better we'll come to appreciate the homespun, democratic vitality of such work. Contrast that with the hilariously surreal spectacle of May Ray, who march in perfect unison, accompanied by the sound of prerecorded applause. They sell expensive accessories, along with a sense that culture is a one-way transaction: We create,

you consume., If all this sounds symbolic of small-scale, local struggles within a globalized marketplace, that's probably because it is. And *A Bread Factory* feels like the kind of offbeat film that might screen at the Bread Factory. There's a theatricality to the acting here — it's never stony or hammy, but it has a precise, pointed clarity that grabs our attention. That self-conscious, performed quality emerges further during the more expressionistic Part Two, subtitled *Walk with Me a While*, which offers up bizarre musical numbers and tap dance routines featuring selfie sticks and cellphones., Wang is a singular artist, but he taps into a rich tradition. The focus on the workings of an American institution may remind some of the expansive comedies of Robert Altman or the documentaries of Frederick Wiseman. But also, the blurring of the line between performance and reality, the embrace of an intimate theatricality, recalls the work of Jacques Rivette. These are cinematic giants, and this director may be on his way to joining them., An earlier version of this review misspelled the name of the actress who plays Greta. She is Elisabeth Henry, not Elizabeth.

4 Walt Whitman wrote that "the United States themselves are essentially the greatest poem," and in a Whitmanian temper I would argue that Frederick Wiseman is the greatest American poet., It's true that he works in images rather than lines of verse, that the people in his movies speak in plain prose and that his own voice is never heard onscreen, but to pin his work under the documentary rubric seems increasingly misleading. Poetry feels like a better classification. A Wiseman film — the newest is *Monrovia, Indiana* — doesn't make an argument or tell a story. It's not trying to raise awareness of a cause or a problem, though awareness is its currency and its reward. You arrive at meaning through patterns and rhythms, and you have to do some work to apprehend the structure and the themes. In return, you arrive at a kind of knowledge that's impossible to summarize, and also to forget., Monrovia is a town of around 1,000 people (according to the 2010 census) about a 30-minute drive southwest on I-70 from Indianapolis (according to Google Maps). Wiseman and his crew spent time there in what looks like the summer and fall, judging from the changing color of the ripening corn. There are picturesque, pastoral glimpses of cloud-flecked skies and green fields (the cinematographer is John Davey) that suggest the unchanging cycles of rural life., [Read about Frederick Wiseman, who is among the most important filmmakers working today.], The human reality of the film is more complicated, as you might expect. Wiseman observes people in groups and in public. There are no straight-to-camera interviews or home visits, but rather a tour of the rituals and routines of municipal life as citizens work, shop, eat, argue and play. As usual in a Wiseman film, we sit in on a lot meetings — of committees and organizations whose business includes zoning, water service and the placement of a park bench. We also visit a pizza place, an antique-car rally, a school and a veterinarian's office, where a dog is put under general anesthesia so its tail can be cropped., That scene is gross, puzzling and oddly tender — a thing that happens in the world without context or explanation, and that requires skill, care and concentration on everyone's part but the dog's. The surgery's inclusion can be taken as evidence of Wiseman's broad curiosity and of his sly sense of humor, a warning to anyone who would try to impose a unifying interpretation on the film., It is, after all, about a slice of red-state America at a time of fierce political polarization. In the wake of the 2016 election, traveling to Monrovia — a mostly white town in the vice president's home state — is hardly an idle or random decision, and the unavoidable political implications of *Monrovia, Indiana* give its observations an undeniable urgency., That may fade in the future, as the film takes its place in the canon of American vernacular art. In the meantime, what's most striking is how far the national issues that dominate the news media seem from daily life in Monrovia. You can't say that Wiseman tries to avoid those issues. He plants himself in a gun shop, an Evangelical church and the kind of diner where journalists like to go to test the faith of Trump voters. But instead of the president's name, we hear jokes and anecdotes and a moving, startlingly cheerful sermon at an elderly woman's funeral. (To quote Whitman again, on the United States: "Their Presidents shall not be their common referee so much as their poets shall."), If one lesson is that there's more to life than politics, even in politicized times, another is that there is more to democracy than ideology. I'm not evoking some mythical common ground where we all come together in spite of our differences. There are no mythic places in Wiseman's world, which is a land of practicality and procedure., The citizens and office holders of Monrovia are concerned with intentionality and purpose.

sely local matters of land use, economic development and the availability of basic services. In this they are no different from the New Yorkers of *In Jackson Heights*, Wiseman's 2015 film about that Queens neighborhood. Jackson Heights may be more diversely and densely populated than Monrovia, but the residents of both places speak a common language of civic engagement., That turns out to be an idiom rich in humor, as fans of *Parks and Recreation* (speaking of small towns in Indiana) will recall. Wiseman's movies are often funny, and it's not always easy to locate the source of the laughs. There is no mockery in a filmmaking method that is based on close and sympathetic attention. But he has demonstrated, over and over again, in high schools and libraries and state legislatures and schools, that nobility and ridiculousness are entwined in our DNA. We have a desperate, innate need to take ourselves seriously, and an element of comedy is almost always involved when we do. Or there would be if we could only see ourselves, which is precisely what Wiseman allows us to do., A teacher or maybe he's a coach of some kind; nobody is identified by name or title in a Wiseman film, unless it comes up naturally in conversation or delivers a lecture to a group of teenagers about a Hoosier basketball legend named Branch McCracken. The dynamism of the speaker and the boredom of his listeners feel performed, not for the benefit of Wiseman's cameras so much as to fulfill the terms of a social transaction, one that seems both entirely familiar and deeply absurd., Life is theater. Everyone is simultaneously actor and spectator. The old-timers telling stories in the coffee shop are acting out familiar roles, as are the members of the City Council and the participants in a solemn ritual at the Masonic temple. The minister sending his departed congregant off to glory may be the most obvious and energetic showman in *Monrovia, Indiana*, but that fact, rather than undermining his sincerity, is what confirms it., It isn't spoiling this movie to tell you it ends in a graveyard. That's where a lot of things end, including poems. While there's no reason to suppose that this is Wiseman's last movie, it doesn't seem impossible that, at 88, he is aware of lengthening shadows and autumnal tints, of the fragility of perception and the finite nature of consciousness. *Monrovia, Indiana* is not precisely about any of those things, but it carries intimations of them, elegiac strains amid the doggerel of daily life.

5

Tina works security at a Swedish port. As passengers walk up a long corridor toward the terminal, she stands and looks at them. And she sniffs. Sometimes her lip curls, revealing stubby, yellow teeth. Her jutting brow ridge furrows a bit. If something agitates her, she growls. Quietly, as if trying to suppress it., She's good at her job. For some reason she can literally sniff out guilt. Usually she catches banal lawbreakers — underage kids trying to smuggle a little booze. But one day she detains a well-dressed man who has a SIM card full of child pornography., Tina, the main character in Ali Abbasi's *Border*, lives at a remove from society, in a forest house she shares with a man who raises dogs that she can't be around. Enlisted by higher authorities to dig deeper into the child pornography case, she's suddenly around people who are curious about who she is and what she can do. She's not entirely sure about these things either., Enter Vore, who has facial features and a physical bearing similar to Tina's. Vore studies insect larvae and collects maggots. (Not just for the sake of collecting them, either, as we'll soon learn.), When Vore comes off a boat and looks Tina over, Vore grunts too, in a manner like Tina's and makes a face that toggles between a leer and a sarcastic sneer. Tina (Eva Melander) doesn't know what to make of Vore (Eero Milonoff). But Vore has a thorough understanding of the secrets that Vore and Tina share. Secrets that Tina's father, who's struggling with dementia, has withheld from her for years., I don't know a lot about Swedish folklore, so I was in an especially cold state as I went into this movie, written by Abbasi, Isabella Eklof and John Ajvide Lindqvist (also the writer of the 2008 film *Let the Right One In*), from Lindqvist's short story. As cold as possible is a good way to see it. This is a movie that aims to startle in overt and subtextual ways; the less known before viewing, the better., In its first sequences, *Border* is shot and edited in a straightforward style that suggests a documentary. The makeup work, by a large crew, alters the appearance of Melander and Milonoff most credibly. The actors are stalwart in depicting the unusual behavior of their characters. A scene in which Vore tries to convince Tina that the maggots that seem to be the biggest part of Vore's diet are indeed scrumptious is one of the most delightfully squirm-inducing moments here., As the movie continues, it splits its narrative. One thread follows Tina as she helps the authorities catch the child pornographers, another shows Vore and Tina enthusiastically and sexually explicitly exploring their affinities. And here *Border*, which won the top prize in Cannes' *Un Certain Regard* slate this year, becomes a somewhat more conventional genre film. Indeed, the final plot twist will elicit a nod from anyone conversant with 1980s Hollywood thrillers. But by this point, the movie has served up so many surprises, jumpy moments, and occasional but well-earned laughs that the familiarity is acceptable.

6

□S

hirkers□ is the director Sandi Tan□s first feature □ the first, at least, that anyone has been allowed to see. Back in 1992, as a rebellious 19-year-old in Singapore, she wrote and starred in a subversive road movie about a female assassin, enlisting her closest friends, Jasmine Ng and Sophie Siddique, to help with editing and production. The completed project, captured on 70 canisters of donated 16-millimeter film, was then relinquished to its director: a slippery, middle-aged American film teacher named Georges Cardona. They never saw him again., Like a photograph slowly developing before our eyes, □Shirkers□ (which was also the title of the original picture) is both mystery and manhunt, a captivating account of shattered friendship and betrayed trust. The skill of the editing (by Tan and two colleagues), though, is key: interviews are woven organically throughout the narrative, and little nuggets of rewarding information are withheld until the final stretches. In this way, the movie is constantly surprising and delighting us, not least in its creative use of the original film□s footage. Those long-lost images, miraculously recovered by Tan two decades after their disappearance, would send her on a quest to reconnect with her former collaborators and make sense of her past., The result is a strange, warm and winding tale of movie love and knifing disappointment, nudged along by Tan□s soft and pleasant narration. An oddly intense teenager with a widely read zine and a variety of international pen pals, she chafed against a rigidly conservative government that banned chewing gum and stifled access to the indie cinema she and her friends craved. When they met Cardona at a filmmaking workshop, he seemed a charismatic kindred spirit, and Tan was intellectually smitten despite the suspicions of her friends. A 40-year-old married man who liked to drive around at night with much younger women, just talking about movies, didn□t seem quite kosher., Those drives would continue after Tan moved to America, including a road trip to New Orleans where Cardona grew up. The relationship might have been platonic, yet it was ardent, giving his treachery the stab of a love gone wrong. This infuses □Shirkers□ with a powerful sense of loss, of chances missed and a what-might-have-been tone that isn□t entirely about those stolen canisters., Present-day interviews with Jasmine and Sophie reveal the ingenuity of their contributions and deepen our understanding of the Cardona dynamic, as well as uncover the burrs of disputes that linger in the women□s memories. Somehow, though, the film never sinks into sourness. This is especially surprising as those original clips, shot on the streets of Singapore with a cast of family and friends, are bright and quirky and inventive enough to suggest the possibility of something wonderful and weird: the baby steps of a cult classic., These ghostly, long-ago scenes, artifacts from a painful past, at times turn this new □Shirkers□ into an act of exorcism, a purging of regrets and questions that have bedeviled the adult Tan, now a novelist in Los Angeles, for longer than she would like. The love she has for that footage remains inextricably bound up with nostalgia for her younger self, for the dreams of a determined young woman who longed for a bigger world and a wider audience. A shirker, she tells us, is someone who runs away. On the evidence of this movie, Cardona might not have been t

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he only one running.  
## 7
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Probing the space between innocence and experience, the director Akin Omotoso's fourth feature, *Vaya*, is a story of narrow escapes and even narrower choices. Following three strangers who leave their rural homes and board a train to Johannesburg, the movie slowly and credibly intertwines their fates. All are young, naïve and engaged in deceptively simple errands. Zanele (the lovely Zimkhitha Nyoka) is deliv

ering a young girl to her mother in the city; Nkulu (Sibusiso Msimang) must retrieve the body of his father, a former mine worker, and return it to his grieving family; and Nhlanhla (Sihle Xab a) has been promised a lucrative job by his prosperous cousin, Xolani (a vivid Warren Masemola)., What the three encounter, though, is a city filled with large betrayals and dangerous seductions, a place where crime and corruption are rampant and the poor mere tools to be used and abused. Using real experiences shared by the homeless in story workshops, Omotoso □ who was also a creator of the South African television series □A Place Called Home□ □ directs with empathy and without sentimentality. Violence is swift and searing, and the cinematographer Kabelo Thathe's gorgeous aerial shots and electric street scenes belie the fact that this is his first narrative feature. In the middle of a shootout or on top of a landfill, his camera tells a story that reaches beyond the script., Representative of the millions of South African migrants who have travelled to cities from rural villages, □Vaya□ (which means □to go□ in Tsotsitaal) illuminates the gulf between those who leave and those who remain. Questioning the very definition of a criminal, the movie abandons our three young searchers in moral transit. After the screen goes dark, we're still worrying about them.

8

The AIDS crisis, which will remain a global crisis until a definitive cure for the disease is found, is no longer at the foreground of our culture. The film *1985* is a moving cinematic sketch of a HIV-infected man living through the height of the plague., Written and directed by Yen Tan, the Malaysia-born filmmaker whose 2013 *Pit Stop* was about a conflicted gay man in contemporary small-town America, *1985*, is shot in a somber but rarely drab black-and-white. Mostly set in a suburb of Fort Worth, it follows Adrian, who left his evangelical Christian family to work in advertising in New York, as he visits home for the first time in three years., Greeted, if that's what you can call it, by his gruff, taciturn father (Michael Chiklis) at the airport, he's met at home by his mother (Virginia Madsen), who's almost desperately radiating affection. His younger brother, Andrew (Aidan Langford), in his early teens, seems irritated with him., Adrian is gay, but not out to his folks. He's also not well; AIDS has taken several close friends from him, and he's recently learned that he too has contracted the virus. When Adrian discovers that Andrew is secretly listening to Madonna cassettes — secular music is forbidden in the house — the bond the brothers now share is overshadowed by the dread Adrian has nursed since the movie's first shot., The meticulously composed movie sees Adrian negotiating with his nerve and his fear. A catch-up with an initially angry ex-girlfriend (Jamie Chung) painfully demonstrates how hard a time he has really trusting anyone., Cory Michael Smith's performance as Adrian is a quiet marvel in a movie that's superbly acted all around. The film's intimate consideration of still-enormous issues is intelligent, surprising and emotionally resonant.

9

The horror film □The Dark□ begins queasily, following a man, Josef (Karl Markovics), who has absconded with a blind, bound teenage boy to a cabin deep in a shadowy wood known as Devil□s Den. Josef has monstrous intentions, but he is no match for the forest□s demons., The cabin turns out to be home to an undead, flesh-eating teenager, Mina (Nadia Alexander). She kills Josef, but spares his victim, Alex (Toby Nichols). He has not known death or the taste of human blood, but Mina senses a kindred spirit and his suffering speaks to her own. When search parties come to collect Alex, Mina responds with deadly overprotectiveness., Despite its violence, □The Dark□ is quiet in sound and style. The camera frequently hides with Mina in the shadows as she observes intruders who may become her prey. Rather than relying on shocks, □The Dark□ takes a sober approach to its realistically gruesome imagery. Mina and Alex are survivors of childhood abuse, and bear the scars of their suffering. Alex□s eyes have been scratched out, while Mina carries wounds from a sexual assault. Her skin is torn and decaying, a grim echo of the acne that might plague an ordinary teenager., This is weighty material for a slim film, and the direction by Justin P. Lange is heavy-handed. Mina and Alex seem less like teenagers and more like case studies with traumas rather than personalities. The horror genre can be a pipeline into the dark corners of the psyche, but the impact of □The Dark□ is more clinical than cathartic.

10

□Viper Club□ begins as a movie about a mother trying to rescue her son □ a journalist kidnapped while reporting from Syria □ and gradually reveals that it□s as much a character study as a procedural. Although it□s dedicated, in part, to reporters like James Foley and Steven J. Sotloff, who were held captive and killed by the Islamic State, to call it an issue movie would be to shortchange it., Susan Sarandon brings real nuance to Helen, an emergency room nurse whose profession has in some ways hardened her for her son□s disappearance. The F.B.I. advises her not to discuss the matter or pay a ransom she can□t afford anyway. Her son, Andy (Julian Morris), despite doing what the movie argues is vital work, operated independently, without the protections of an employer or military status., There is a fascination in the mechanics of Helen□s decision-making, as she quietly raises money with the help of a high-society mother (Edie Falco, doing wonders with a character written as a one-note snoot) who□s been in her situation., But Maryam Keshavarz, who directed and co-wrote the script, smartly doesn□t turn the movie into a globe-trotting countdown, but instead tightly hews to Helen□s perspective. Except in news clips and video chats, the action never leaves New York State. At work, Helen provides an ear for an Iranian doctor (Amir Malaklou) facing a tough conversation and counsels a moth

er (Lola Kirke) whose daughter is comatose., □Viper Club□ falters with mawkish flashbacks of the mother and son, and with its ham-fisted, repeated emphasis on the smarm of government officials. But it is mostly gripping.

11

A hodgepodge of boosterish arguments for blockchain technology, □Trust Machine: T

The Story of Blockchain, directed by Alex Winter (Bill of Bill & Ted fame), is not always a model of clarity, but it does a decent job of explaining the basic concept. Mark Jeffrey, an entrepreneur looking to blockchain for his start-up, describes the technology as a kind of shared, decentralized ledger: "A record of all the transactions, and it's constructed in such a way that cheating is not possible." Bitcoin has its own ledger, and so does every other cryptocurrency. The question that hovers over this documentary, which generally subscribes to the rosy assessments of libertarians and others who view centralization as inherently dangerous, is just how much potential blockchain technology has to do even more., We learn how, thanks to blockchain, neighbors in Brooklyn can trade solar electricity; how the technology might provide records for stateless refugees; and how it offers a way for fans to buy equity in an artist they like, without the middle men who come with sales on the internet., But the arguments contradict one another. (Blockchain means privacy! And also, look at these supermarket shoppers in Jordan who pay with eye scans instead of cash.) The film also conflates issues. You can believe that blockchain has potential and still think that Bitcoin is a bubble as many economists, not just banking executives with vested interests, do., By the time Rosario Dawson, the narrator, points out that blockchain will likely require some form of regulation to survive, the movie has become an unwitting endorsement of the status quo.

8. Text Mining - I followed this Youtube tutorial on Text Mining for this next part:

[link]<https://www.youtube.com/watch?v=IRTerj8fdY0&t=105s> (<https://www.youtube.com/watch?v=IRTerj8fdY0&t=105s>)

```
#Make all of the review text into one giant string

review_text <- paste(NY_TIMES_CRITICS_df$Body, collapse = ' ')
review_source <- VectorSource(review_text)
corpus <- Corpus(review_source)
```

```
#Text Cleaning
corpus <- tm_map(corpus, content_transformer(tolower))
```

```
## Warning in tm_map.SimpleCorpus(corpus, content_transformer(tolower)):
## transformation drops documents
```

```
corpus <- tm_map(corpus, removePunctuation)
```

```
## Warning in tm_map.SimpleCorpus(corpus, removePunctuation): transformation
## drops documents
```

```
corpus <- tm_map(corpus, stripWhitespace)
```

```
## Warning in tm_map.SimpleCorpus(corpus, stripWhitespace): transformation
## drops documents
```

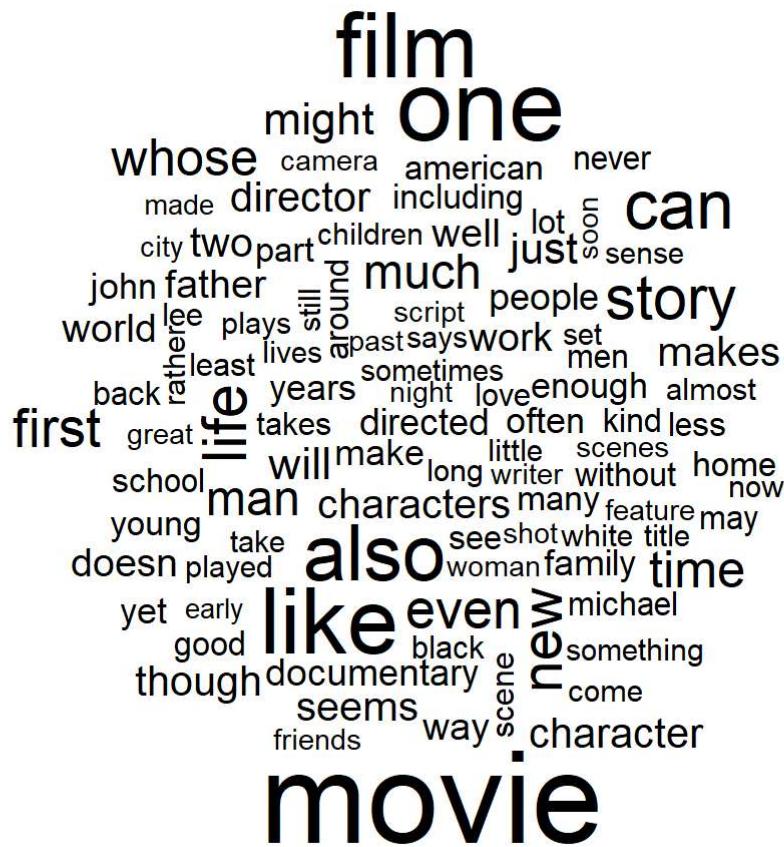
```
corpus <- tm_map(corpus, removeWords, stopwords("english"))
```

```
## Warning in tm_map.SimpleCorpus(corpus, removeWords, stopwords("english")):
## transformation drops documents
```

```
dtm <- DocumentTermMatrix(corpus)
dtm2 <- as.matrix(dtm)
frequency <- colSums(dtm2)
frequency <- sort(frequency, decreasing = TRUE)
head(frequency, 50)
```

##	movie	one	like	film	also	can
##	235	176	159	157	130	109
##	story	life	new	first	even	time
##	95	94	85	80	79	74
##	whose	man	much	might	will	just
##	73	67	67	60	59	57
##	director	character	though	seems	characters	makes
##	55	54	54	53	52	52
##	two	work	doesn	well	world	father
##	52	51	49	49	49	48
##	way	directed	documentary	people	family	make
##	47	44	44	44	43	43
##	john	enough	often	years	yet	american
##	42	41	41	41	41	40
##	home	many	part	young	lot	see
##	40	40	40	40	38	38
##	good	including				
##	37	37				

```
words <- names(frequency)
wordcloud(words[1:100], frequency[1:100])
```



9.Conclusion

The biggest conclusion that I found is that NY Times movie reviewers don't really use a lot of hyperbolic language in their reviews. Few negative or positive adjectives are used frequently in their reviews which implies that their reviews are far more subtle. Also, there are few mentions of box office, awards, sequels, etc.

Just looking at the frequency of the words, it's difficult to find a common sentiment among these reviews.