

# Semester projects

Complex Networks | @networksvox  
CSYS/MATH 303, Spring, 2018

The Real Plan  
References

Prof. Peter Dodds | @peterdodds

Dept. of Mathematics & Statistics | Vermont Complex Systems Center  
Vermont Advanced Computing Core | University of Vermont



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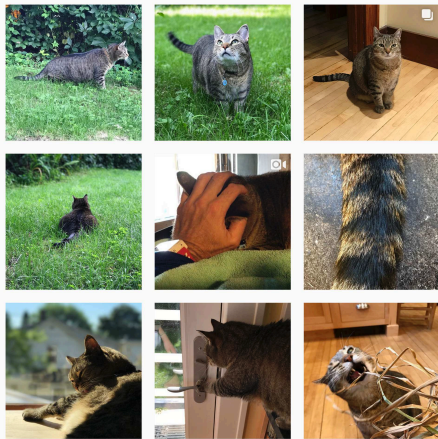
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## Special Guest Executive Producer



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 On Instagram at [pratchett\\_the\\_cat](https://www.instagram.com/pratchett_the_cat) 



# Outline

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# The Critical Periphery in the Growth of Social Protests

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.014>

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# Usual plan for semester projects

## Requirements:

1. 2 minute introduction to project ( $n$ th week).
2. 4 minute final presentation.
3. Report:  $\geq 4$  pages (single space), journal-style
4. And/Or: Online visualization.
5. Use Github for code and data visualizations.
6. Hopefully: Teams of 2 or 3.

The Real Plan

References

## Goals range from:

- 1. Understand, critique, and communicate published work.
- 2. Seed research papers or help papers along.



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# The narrative hierarchy—Stories and Storytelling on all Scales: ↗



-  1 to 3 word encapsulation = a soundbite = a buzzframe,
-  1 sentence, title,
-  few sentences, a haiku,
-  a paragraph, abstract,
-  short paper, essay,
-  long paper,
-  chapter,
-  book,
-  ...



## General plan—All projects will be about stories:



### Works of literature.



Fairy tales, proverbs, sayings, memes.



Metaphors: Taxonomy and abundance.








Frames and micro-narratives in social and traditional media.



What is the story of stories?: Story Taxonomy.








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## For story explorers:



Plots from Wikipedia:

<https://github.com/markriedl/WikiPlots>



So many possibilities



Millions of books on the VACC:

HathiTrust data set



IMDB (see the real plan)



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## Develop and analyze a large-scale, multi-partite temporal network:

- 📦 **Movies/TV series** ([Psych](#))
- 👤 Actors ([Nick Offerman](#)) ([Mira Sorvino](#))
- 👤 Directors ([Spielberg](#))
- 👤 Writers ([Whedon](#))
- 👤 Ratings: [Rotten Tomatoes](#), [Metacritic](#) (no)
- 👤 [Box Office](#)
- 👤 [Genres](#), [TV Tropes](#)
- 👤 Data sources: [Wikipedia](#), [IMDB](#), [fandom/wikia](#)
- 👤 Overall evolution, critical and moviegoer reviews, success, creativity, [#metoo](#)












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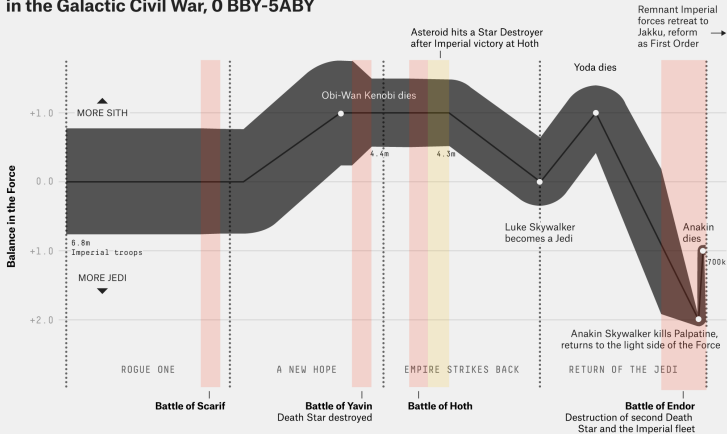
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# Star Wars, In One Chart ↗

## Figurative map of Imperial Navy troop losses in the Galactic Civil War, 0 BBY-5ABY



FiveThirtyEight

SOURCE: LUCASFILM, WODKIEPEDIA, STAR WARS FILMS

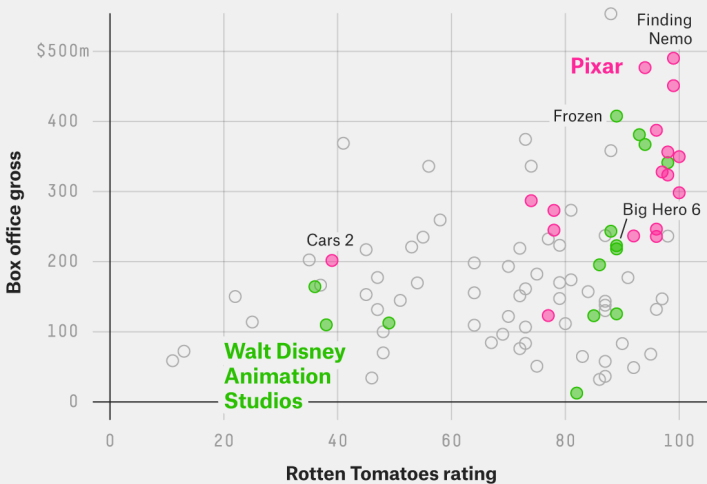
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# The mouse seems to have this thing down

Domestic box office gross in 2016 dollars vs. Rotten Tomatoes ratings for animated films, since 1991



FIVETHIRTYEIGHT

SOURCES: THE NUMBERS, ROTTEN TOMATOES

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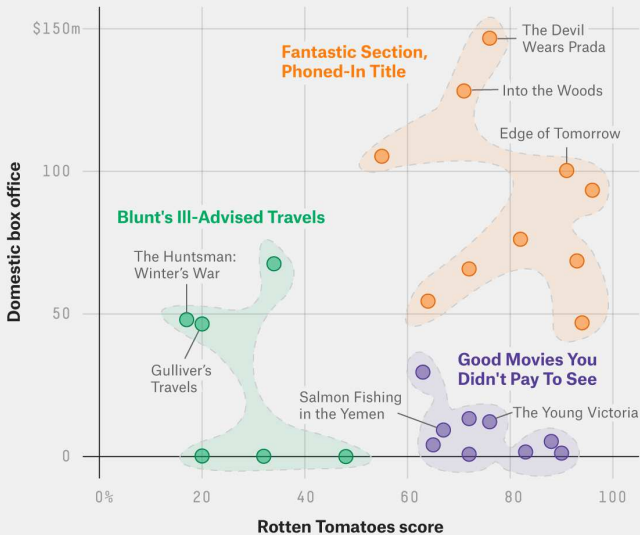
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# Emily Blunt takes good gambles

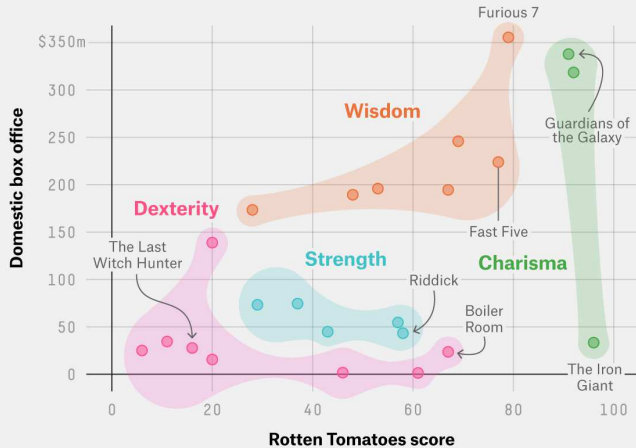
Domestic box office in 2015 dollars vs. Rotten Tomatoes score





# Vin Diesel's (cinematic) character sheet

Domestic box office in 2016 dollars vs. Rotten Tomatoes score



FiveThirtyEight

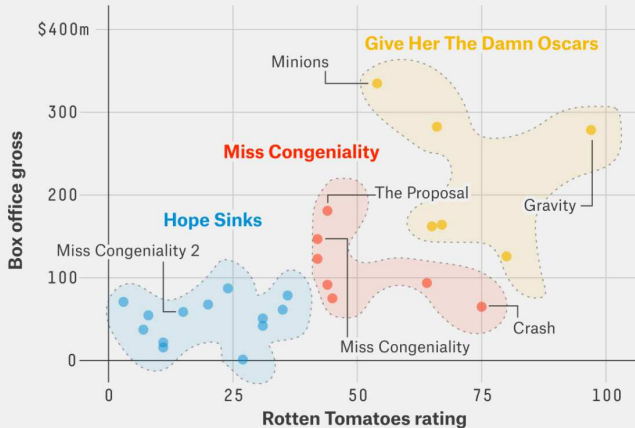
SOURCES: THE NUMBERS, ROTTEN TOMATOES





# Sandra Bullock Is Good In Lots Of Bad Movies

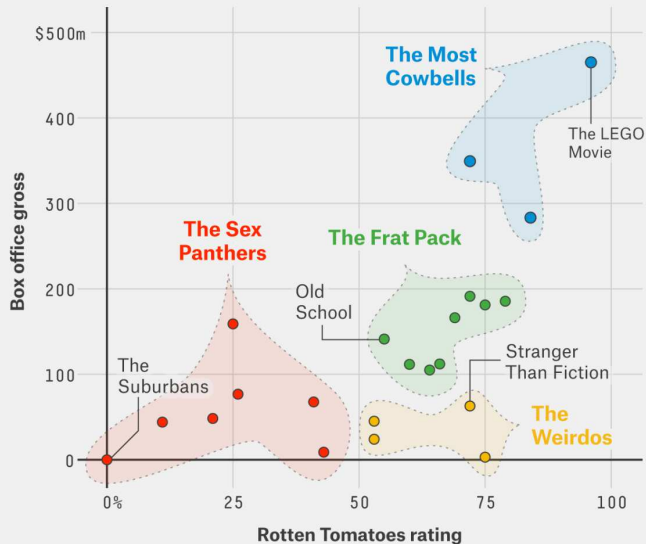
Inflation-adjusted domestic box office vs. Rotten Tomatoes score





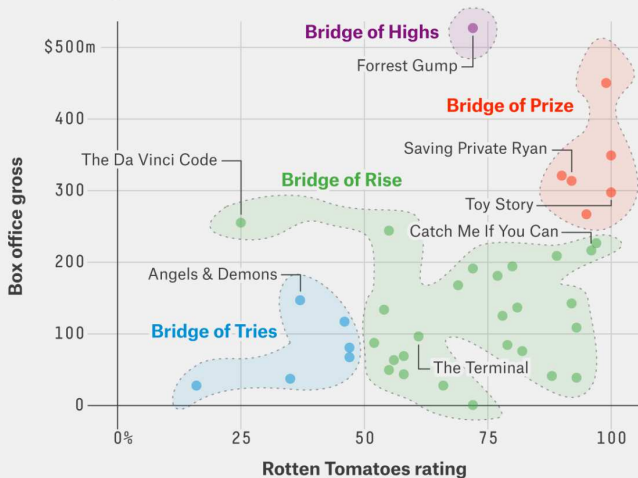
# The Four Types Of Will Ferrell Movies

Box office gross in 2014 dollars vs. Rotten Tomatoes rating



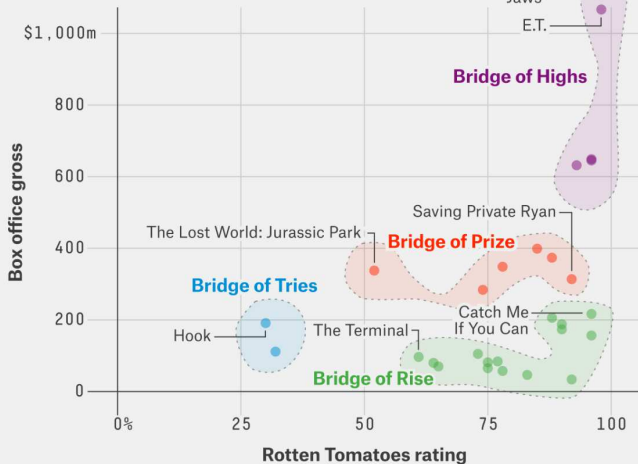
# Tom Hanks Is A Box Of Really Good Chocolates

Inflation-adjusted domestic haul vs. Rotten Tomatoes score



## Steven Spielberg Breaks The Chart

Inflation-adjusted domestic haul vs. Rotten Tomatoes score



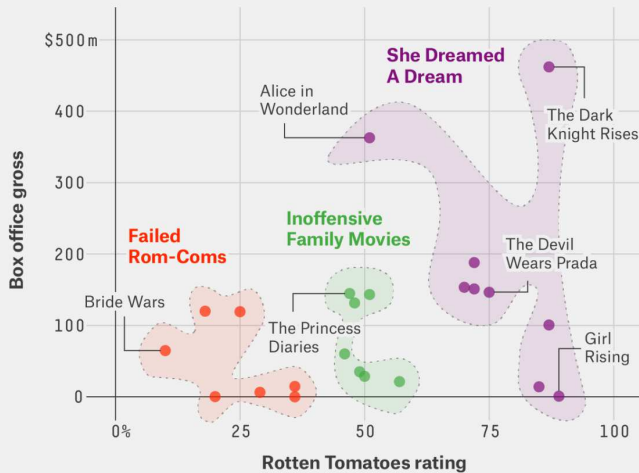
FIVETHIRTYEIGHT

SOURCE: OPUS DATA, ROTTEN TOMATOES



## The Three Types Of Anne Hathaway Movies

Inflation adjusted domestic box office vs. Rotten Tomatoes score

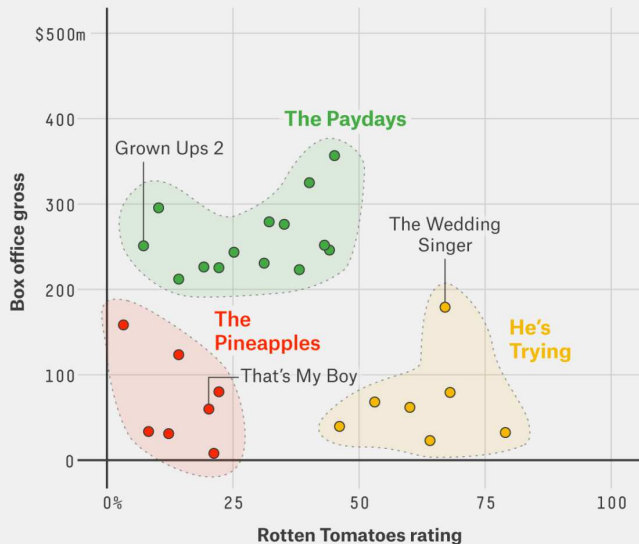






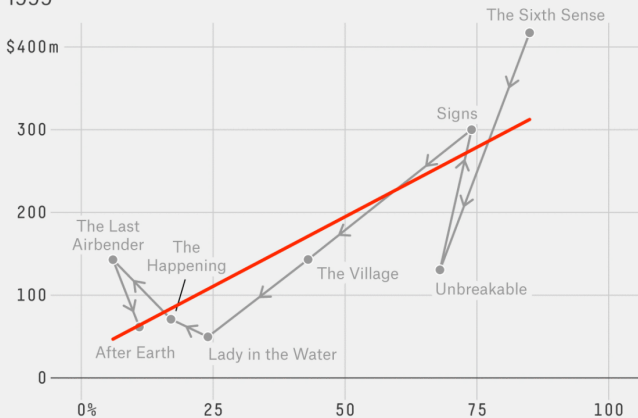
# The Three Types Of Adam Sandler Movies

Box office gross in 2014 dollars vs. Rotten Tomatoes rating



## The M. Night Shyamalan Twist

Box office revenue vs. Rotten Tomatoes score for films directed since 1999



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SOURCE: IMDB, OPUSDATA, ROTTEN TOMATOES



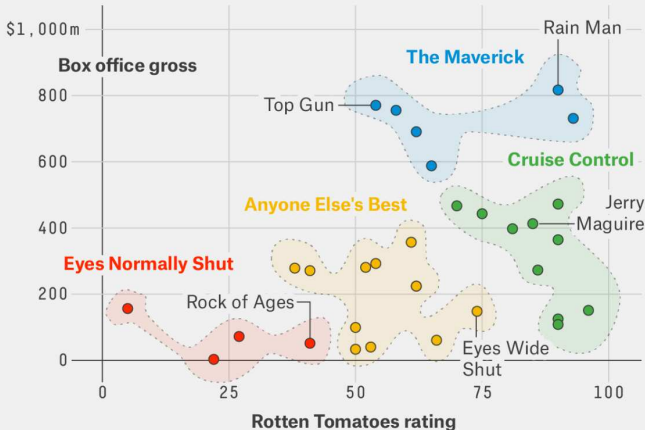
<https://fivethirtyeight.com/tag/hollywood-taxonomy/>





# Tom Cruise Is Impossible

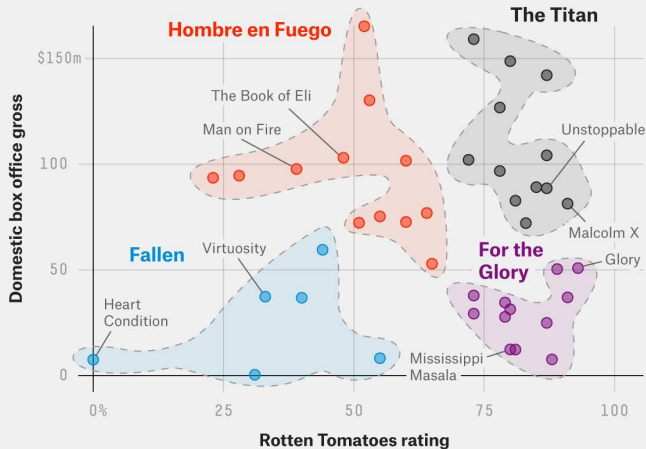
Box office gross in 2014 dollars vs. Rotten Tomatoes rating





# Denzel Washington is unstoppable

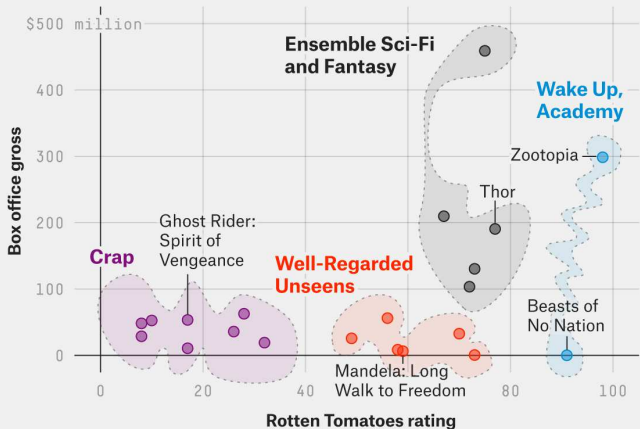
Domestic box office in 2015 dollars vs. Rotten Tomatoes rating





# Please put Idris Elba in more movies

Inflation-adjusted domestic box office vs. Rotten Tomatoes score



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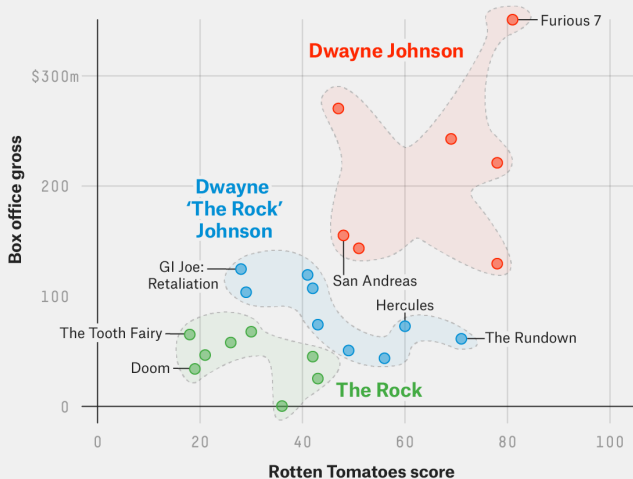
SOURCE: OPUSDATA, ROTTEN TOMATOES





# The three types of Dwayne Johnson movies

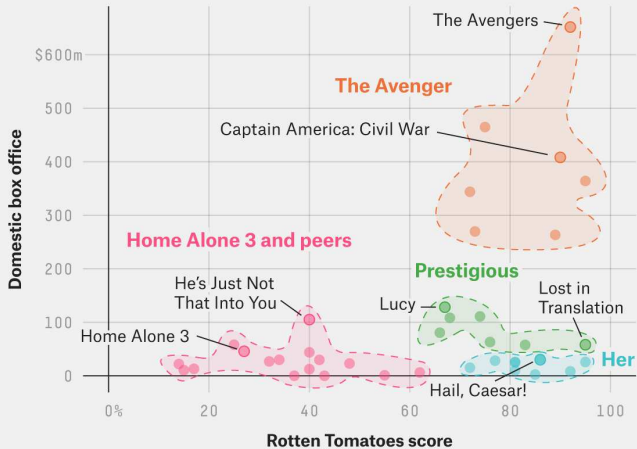
Domestic box office in 2015 dollars vs. Rotten Tomatoes score





# The four types of Scarlett Johansson movies

Domestic box office in 2016 dollars vs. Rotten Tomatoes score



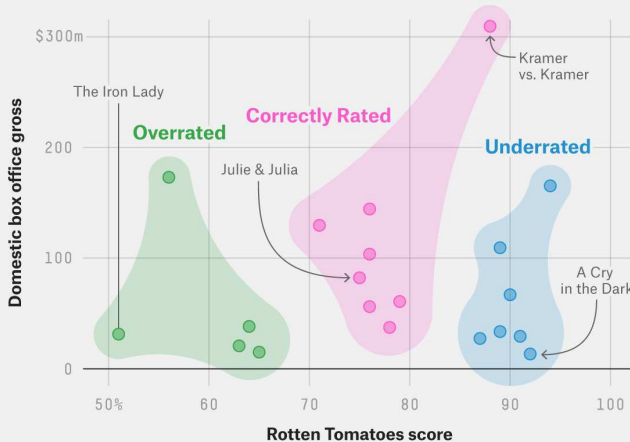
FiveThirtyEight

SOURCES: THE NUMBERS, ROTTEN TOMATOES



## When is Meryl Streep overrated?

Domestic box office in 2016 dollars vs. Rotten Tomatoes rating for Streep's Oscar-nominated performances



FiveThirtyEight

SOURCES: ROTTEN TOMATOES, THE NUMBERS



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