

A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. Some nodes are highlighted with blue circles, and some lines are solid blue, while others are light gray.

As Seen On TV

**An Investigation of Movie Adaptation
of Television Shows**

Garrett Hoffman

A decorative network diagram in the bottom-right corner, similar to the one in the top-left, showing a web of interconnected nodes and lines with some blue highlights.

Agenda

- ◎ Background
- ◎ Model Design
- ◎ Model Results
- ◎ Key Takeaways
- ◎ Next Steps

A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. The nodes are represented by small circles, some of which are solid dark blue, while others are hollow with a light blue outline. The lines connecting them are thin and light gray. The overall shape of the network is irregular and organic, resembling a molecular structure or a neural network.

Background

why should we care?

A decorative network diagram in the bottom-right corner, similar to the one in the top-left. It consists of a cluster of interconnected nodes and lines. The nodes are small circles, some solid dark blue and some hollow with a light blue outline. The lines are thin and light gray. The network is dense and irregular, with many connections between the nodes.



“

*“that means that in its life as a story, **a real life situation** spawned a **book** which became a **movie** which became a **TV show** which could potentially become a **movie again**”*

Art is Malleable

art can be squeezed
into different medium



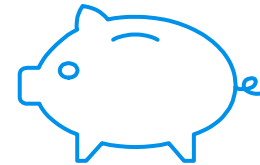
Why is this important?

Content Perspective



the market embraces transformation;
adaptations turn the same ingredients into a different meal

Marketing Perspective

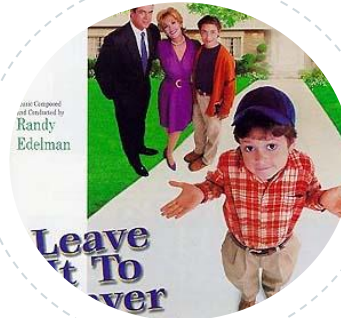


prior exposure to content can potentially reduce consumer acquisition cost

Successes



Not so much



So which one should we choose?

is there a way that we
can predict which TV
shows will make
successful movies?



A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. The nodes are represented by small circles, some of which are larger and have concentric circles, suggesting different levels of connectivity or importance. The lines are thin and gray, creating a mesh-like structure.

Model Design

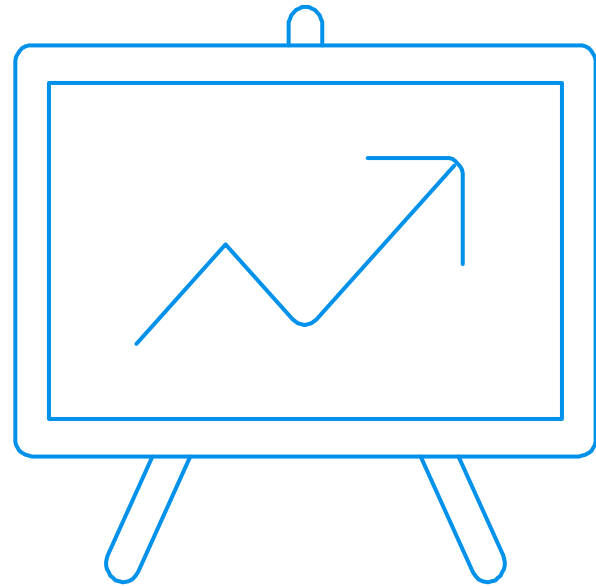
how can we do this?

A decorative network diagram in the bottom-right corner, similar to the one in the top-left. It shows a cluster of nodes connected by lines, with some nodes being larger and more prominent than others. The overall style is minimalist and technical.

Supervised Learning

Linear Regression

we can use what we already know to fit a model that tells us about relationships between features of the TV show and the success of the movie

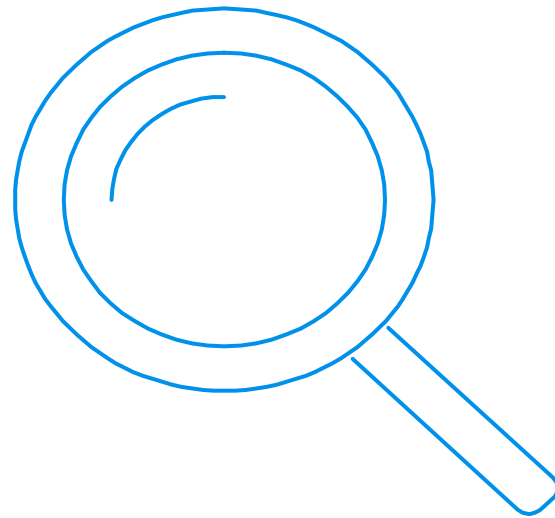


The Data

Sample

approximately 65 movies
that have been adapted
from TV shows

only first release was
considered where
multiple releases



The Data

Box Office Mojo

movie web site with the most comprehensive box office database on the Internet

Domestic Gross

Genre

Release Date

Rating

Budget

IMDB

the world's most popular and authoritative source for movie, TV and celebrity content

Genre(s)

Awards Nominations

Wikipedia

A free encyclopedia built collaboratively using wiki software.

of Episodes

of Seasons

Episode length

Network

How do we define success?

inflation adjusted
domestic box office gross



Which features should we consider?

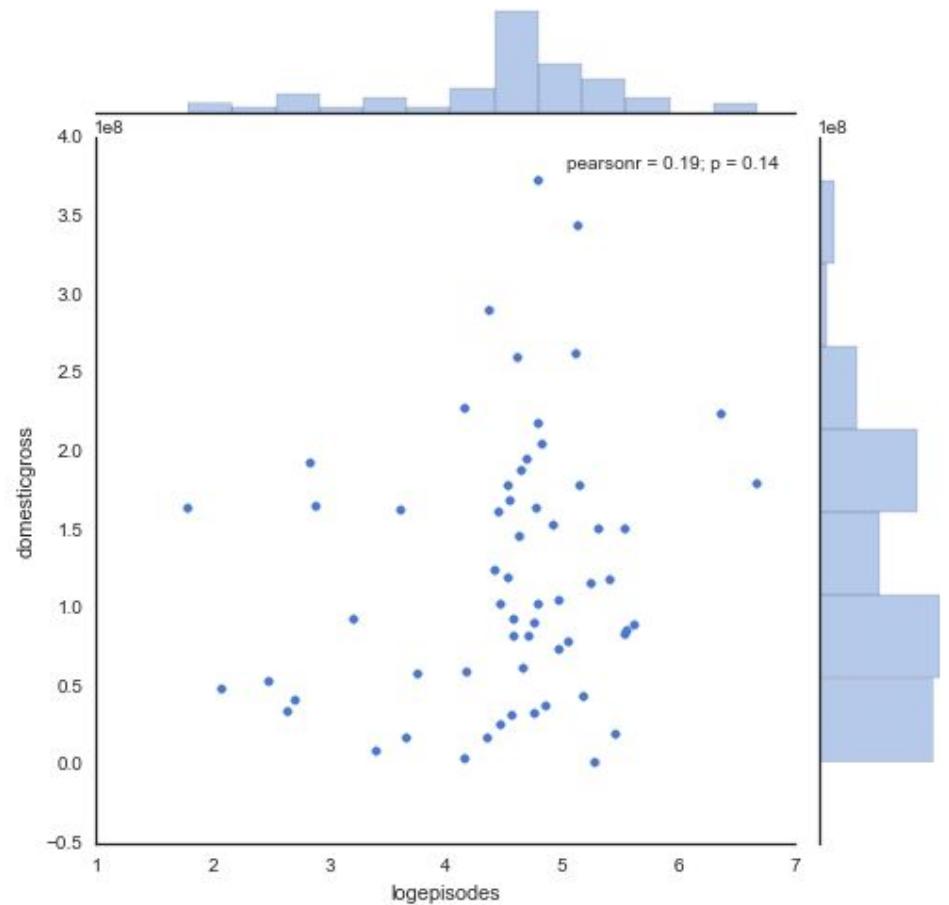
and how can we
quantify them?



Consumer Exposure

Number of episodes

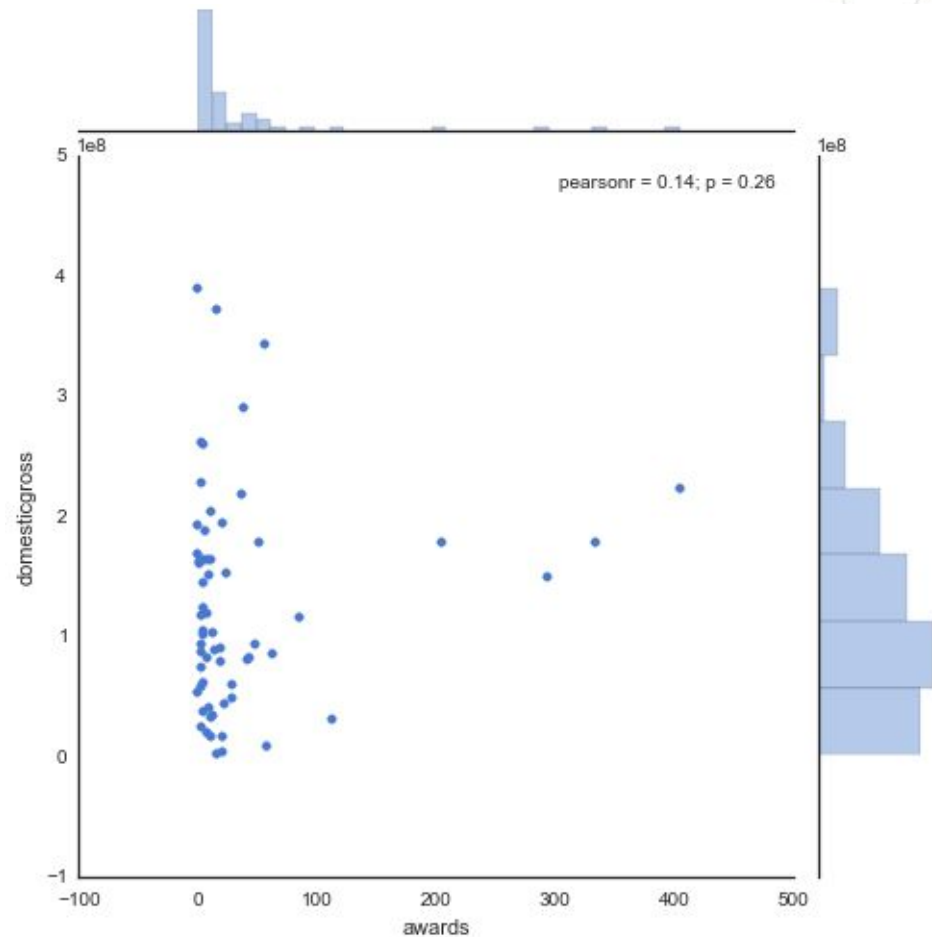
does more air time
translate to more ticket
sales?



Content Quality

Award Nominations

does higher quality content translate to more ticket sales?

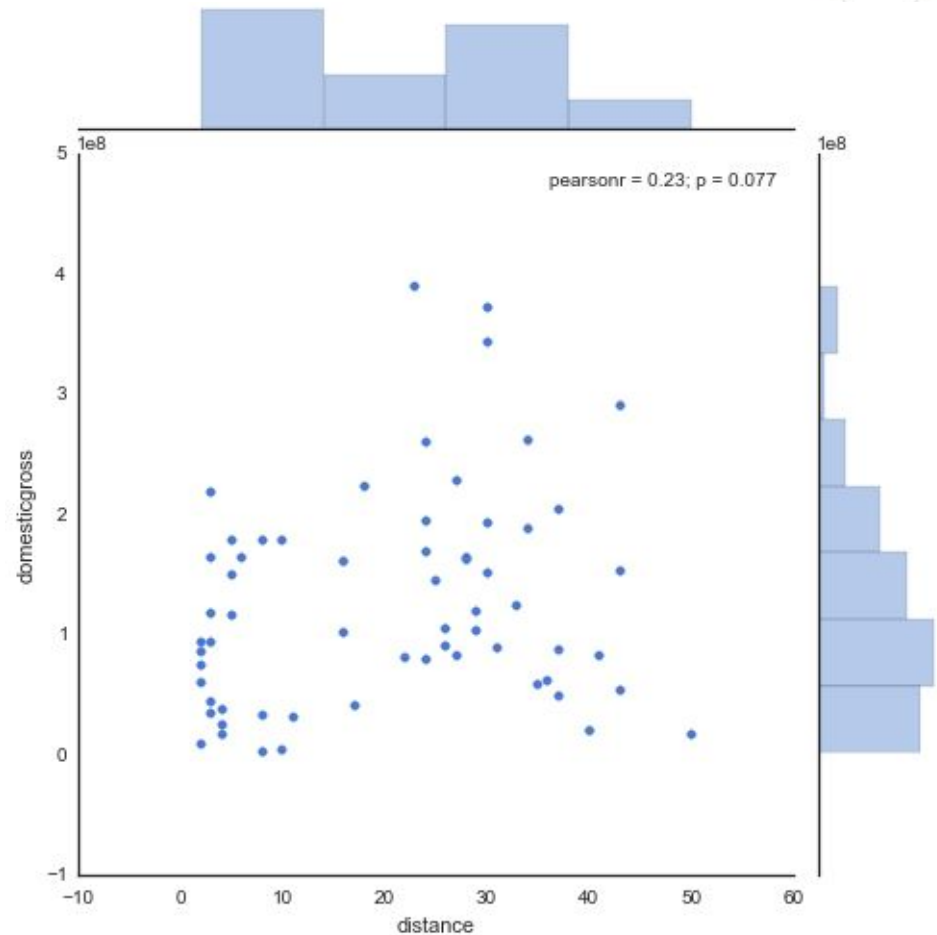


Motivation Vehicle

“Distance”

what feeling compels
someone to see a movie
more, nostalgia or
hype/velocity?

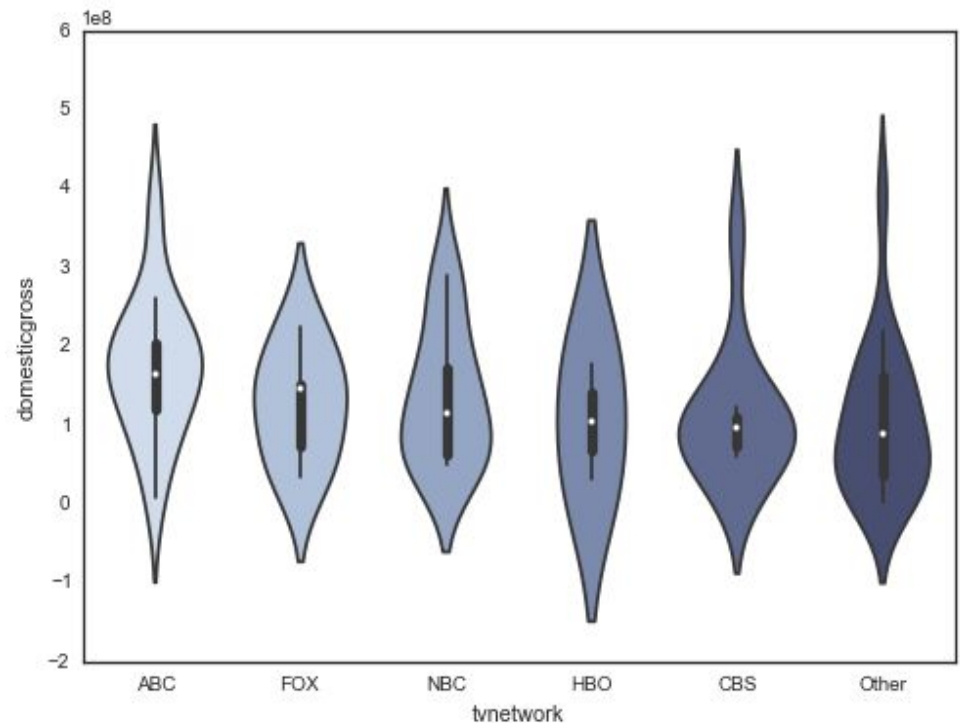
we can quantify this by
looking at the time
between the show
premier and the movie
release



Brand Perception

Network

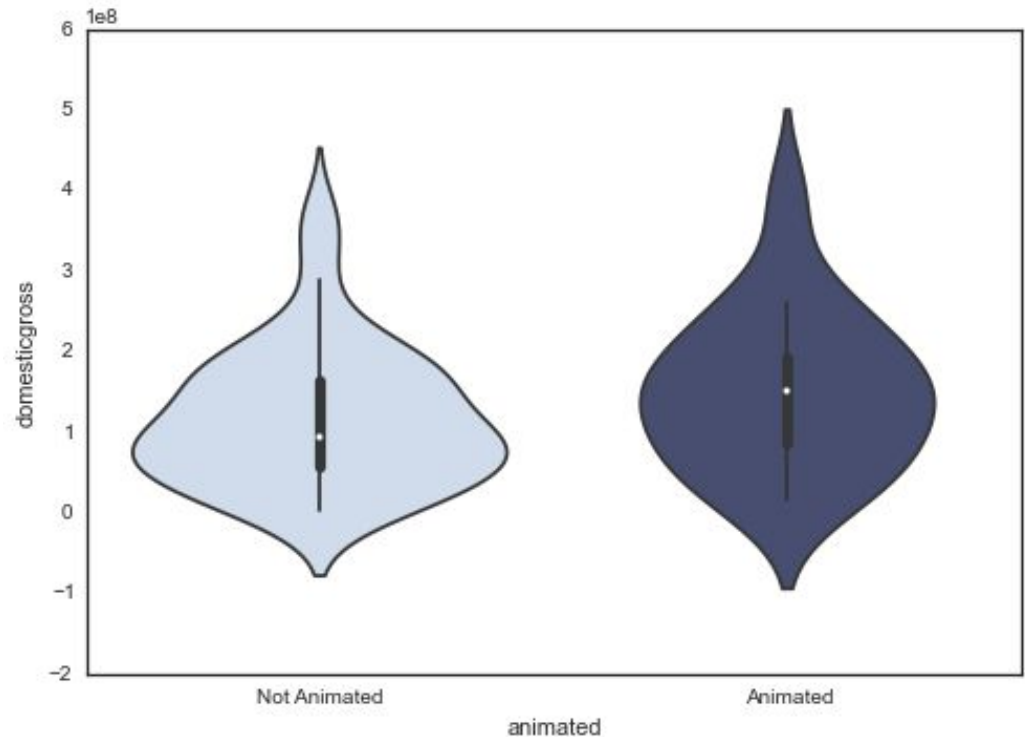
if consumers feel more network loyalty or have a certain perception network content, are they more or less likely to go see the movie?



Animated vs. Live Action

Animated Indicator

do animated show
translate better to
the big screen?





Model Results

so what happened?!



Model I

log(Episodes)
+ \$13.59M

Awards
+ \$0.19M

“Distance”
+ \$1.31M

ABC
+ \$75.24M

CBS
- \$12.90M

FOX
+ \$21.44M

HBO
+ \$5.67M

NBC
+ \$23.09M

Animated
+ \$33.12M



**but is the
model
right?**

not particularly, but
this doesn't necessarily
mean it's not useful



can we make it better?

lasso regularization to
find the strongest
features



Model II - Lasso Regularization

log(Episodes)

+ \$13.85M

Awards

+ \$0.19M

“Distance”

+ \$1.24M

ABC

+ \$64.26M

**ABC only statistically
significant feature**



A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. The nodes are represented by circles of varying sizes, some with concentric rings, and the lines are thin and grey. The diagram is partially cut off by the top and left edges of the slide.

Key Takeaways

what do we know now?

A decorative network diagram in the bottom-right corner, similar to the one in the top-left. It shows a cluster of interconnected nodes and lines, with some nodes having concentric circles. The diagram is partially cut off by the bottom and right edges of the slide.



1.

ABC Shows Are More Successful


all else equal you may want to go
with the ABC show



2.

Other Key Features Show a Positive Relationship

the fit of the historic data implies
this, but we don't have enough
evidence to say this isn't random





3.

Movies are Complex

success depends on more factors
than the characteristics of the
underlying TV show

A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. The nodes are represented by small circles, some of which are double-lined, and the lines are thin and grey. The diagram is partially cut off by the top and left edges of the slide.

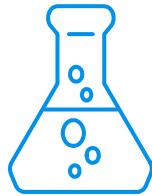
Next Steps

so now what?

A decorative network diagram in the bottom-right corner, similar to the one in the top-left. It shows a cluster of interconnected nodes and lines, with some nodes being double-lined. The diagram is partially cut off by the bottom and right edges of the slide.

Further Analysis

Different Features



we can examine other features related to the movies themselves such as cast, budget, etc.

Regression Tree



relationship is likely non-linear so a different supervised learning approach may be more appropriate

Thanks!

any questions?

