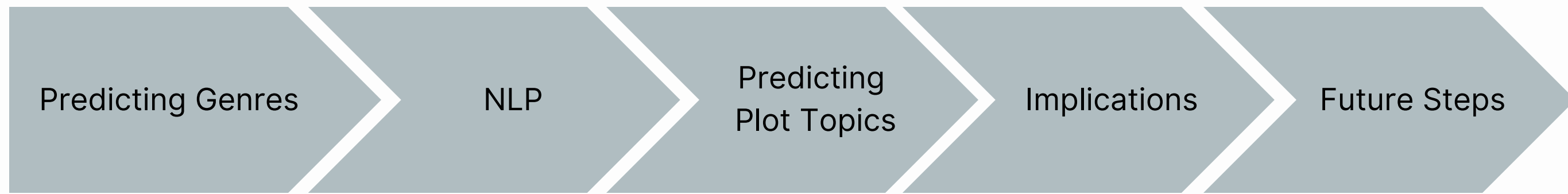


Visual Narratives and Hidden Languages: A Machine Learning Approach to Movie Poster Analysis



Sergiy Chepiga
Data Scientist





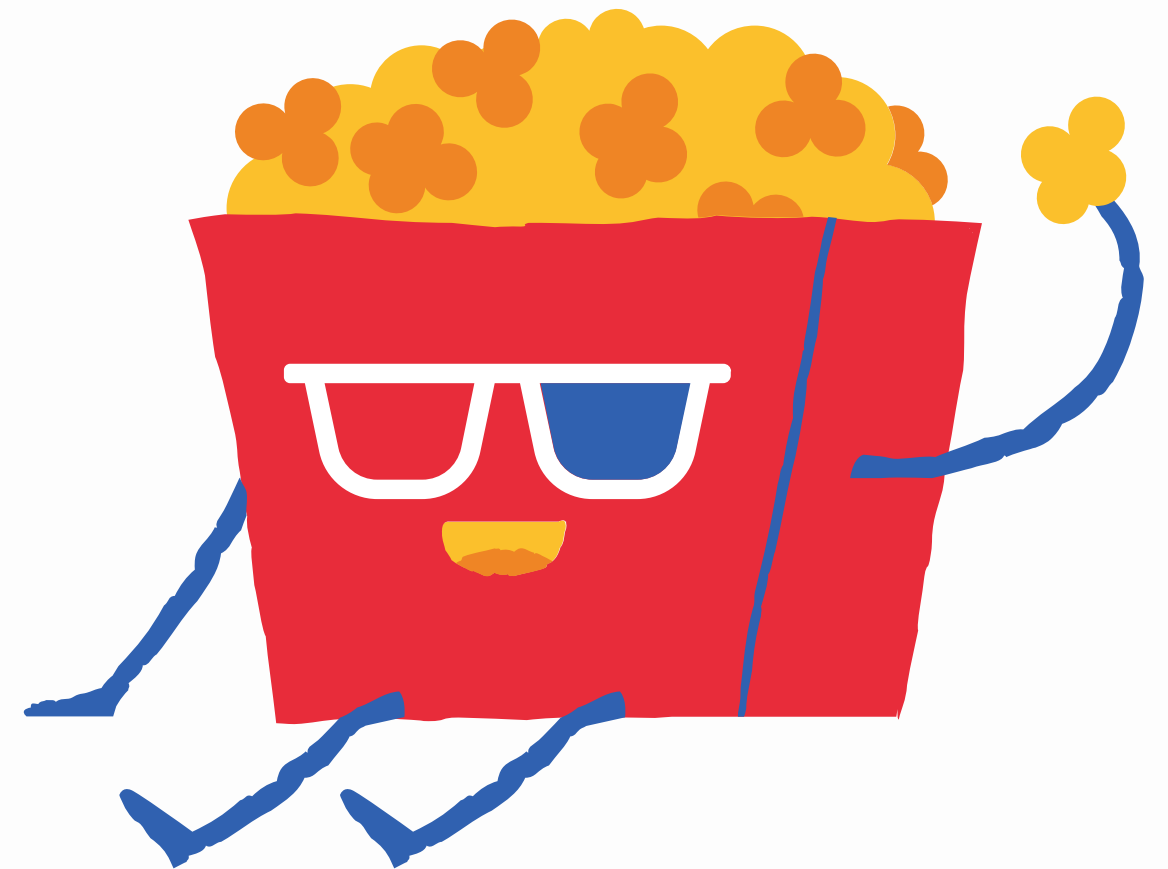
WHAT IS THIS PROJECT ABOUT?

Explore the Connection:

Use machine learning techniques to investigate how a movie's poster visually represents its narrative content.

Analyze the Impact:

Evaluate how this visual-to-narrative correspondence influences a movie's success, measured by IMDB scores.



Predicting Genres

NLP

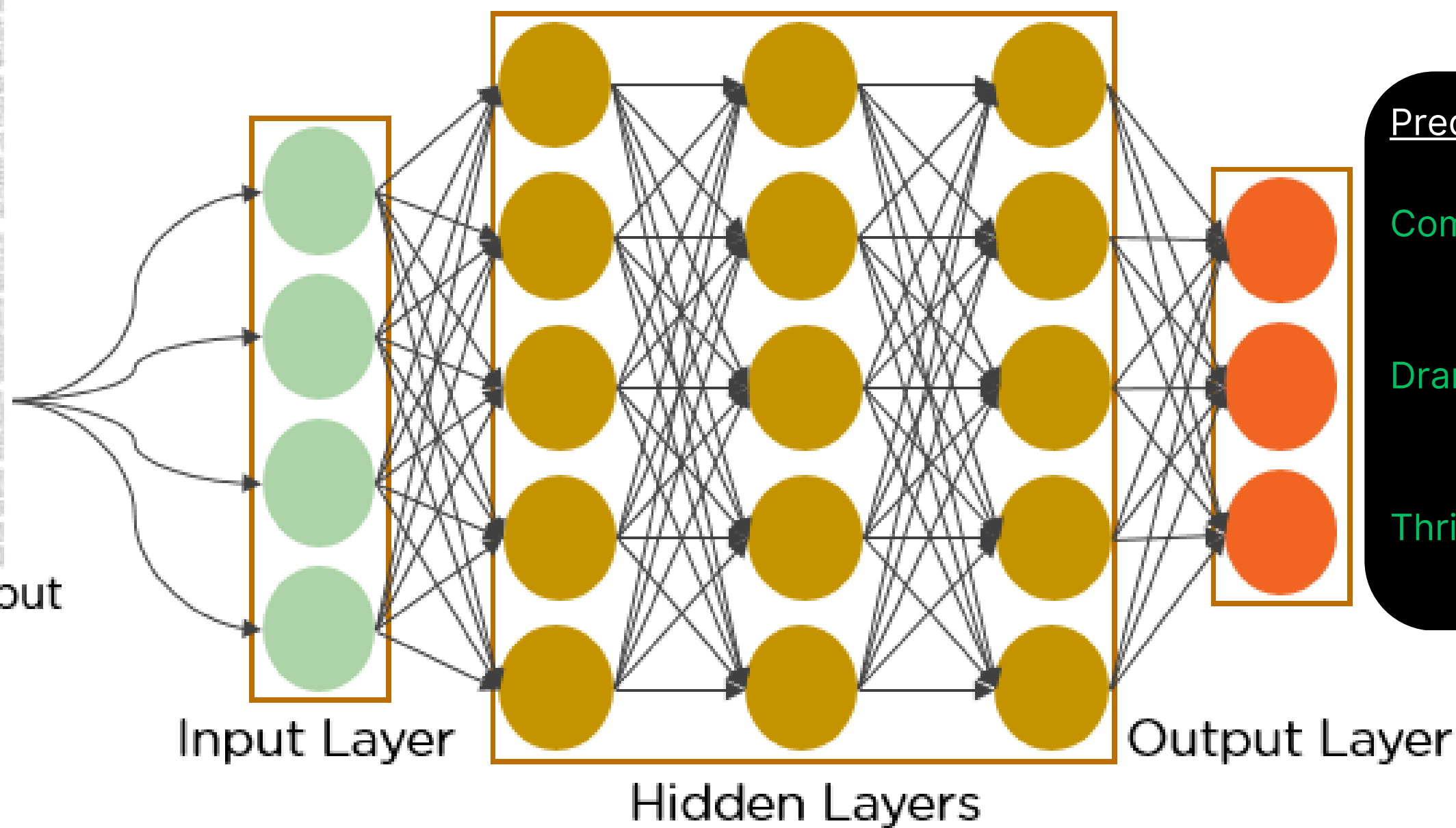
Predicting
Plot Topics

Implications

Future Steps



Pixels of image fed as input

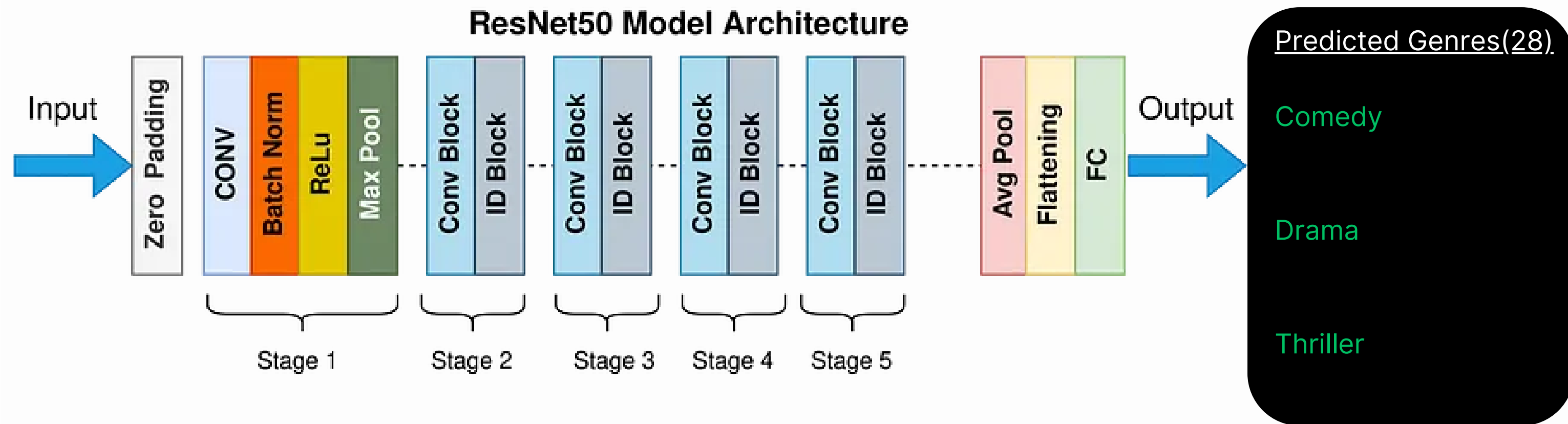
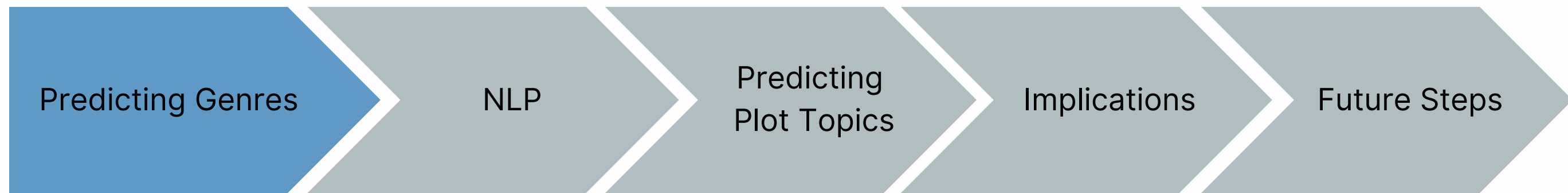


Predicted Genres(28).

Comedy

Drama

Thriller



Predicting Genres

NLP

Predicting
Plot Topics

Implications

Future Steps



What **genres** does this poster depict?

Predicting Genres

NLP

Predicting
Plot Topics

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Categorized as:
Action, Comedy, Crime

Model Predicted:
Comedy, Crime, Drama

What **genres** does this poster depict?

Predicting Genres

NLP

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Plot Topics

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Results of Genre Prediction

Posters where genres were correctly predicted had **higher average review score**



Categorized as:
Action, Comedy, Crime

Model Predicted:
Comedy, Crime, Drama

What **genres** does this poster depict?

Predicting Genres

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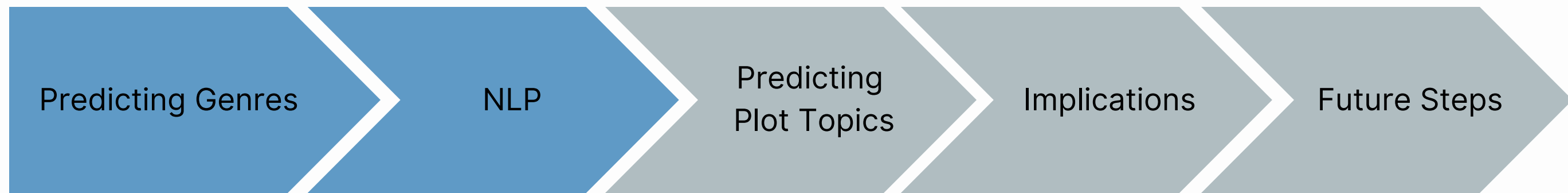
Categorized as:
Action, Comedy, **Crime**

Model Predicted:
Comedy, **Crime**, Drama

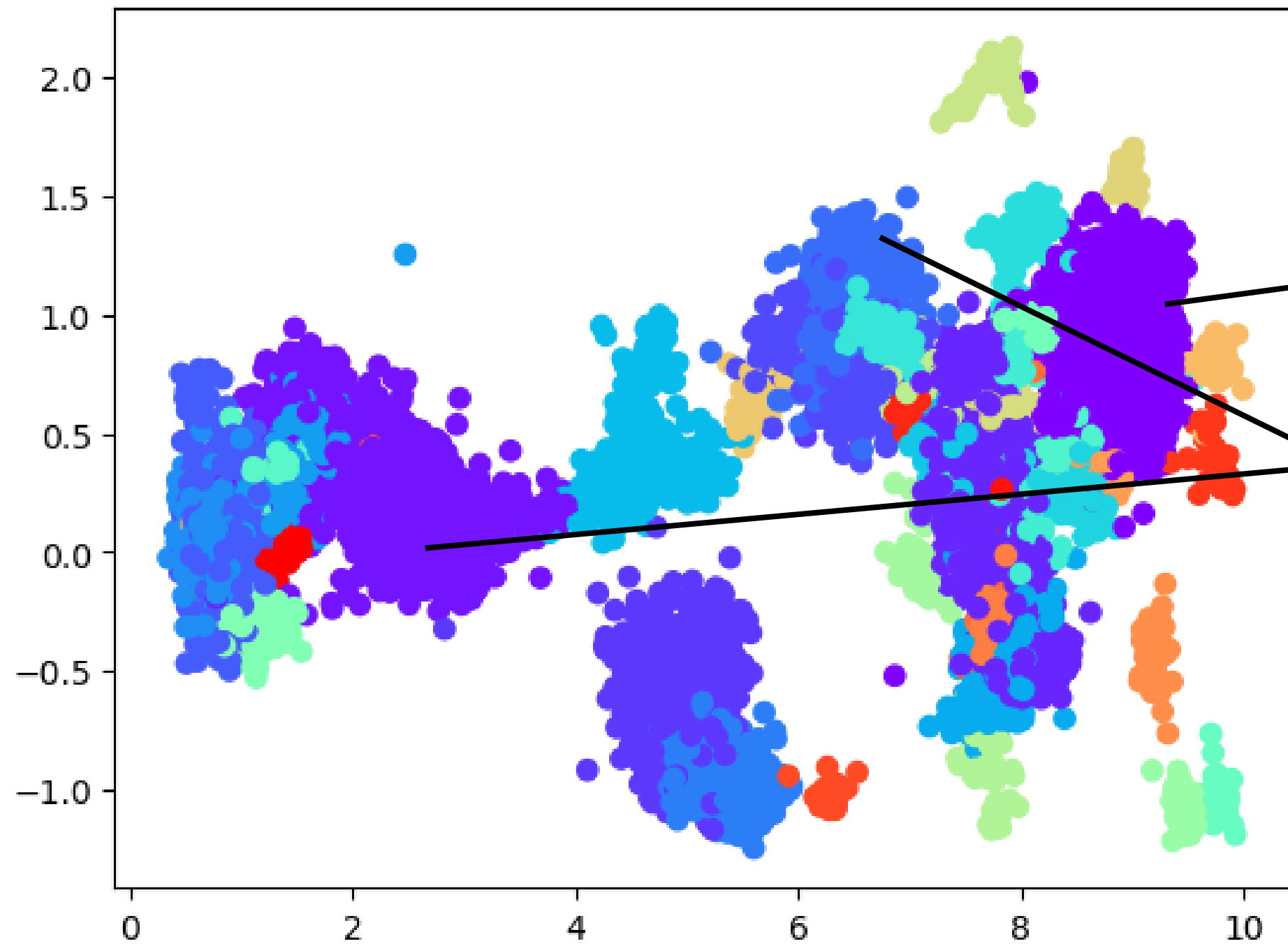


What **genres** does this poster depict?

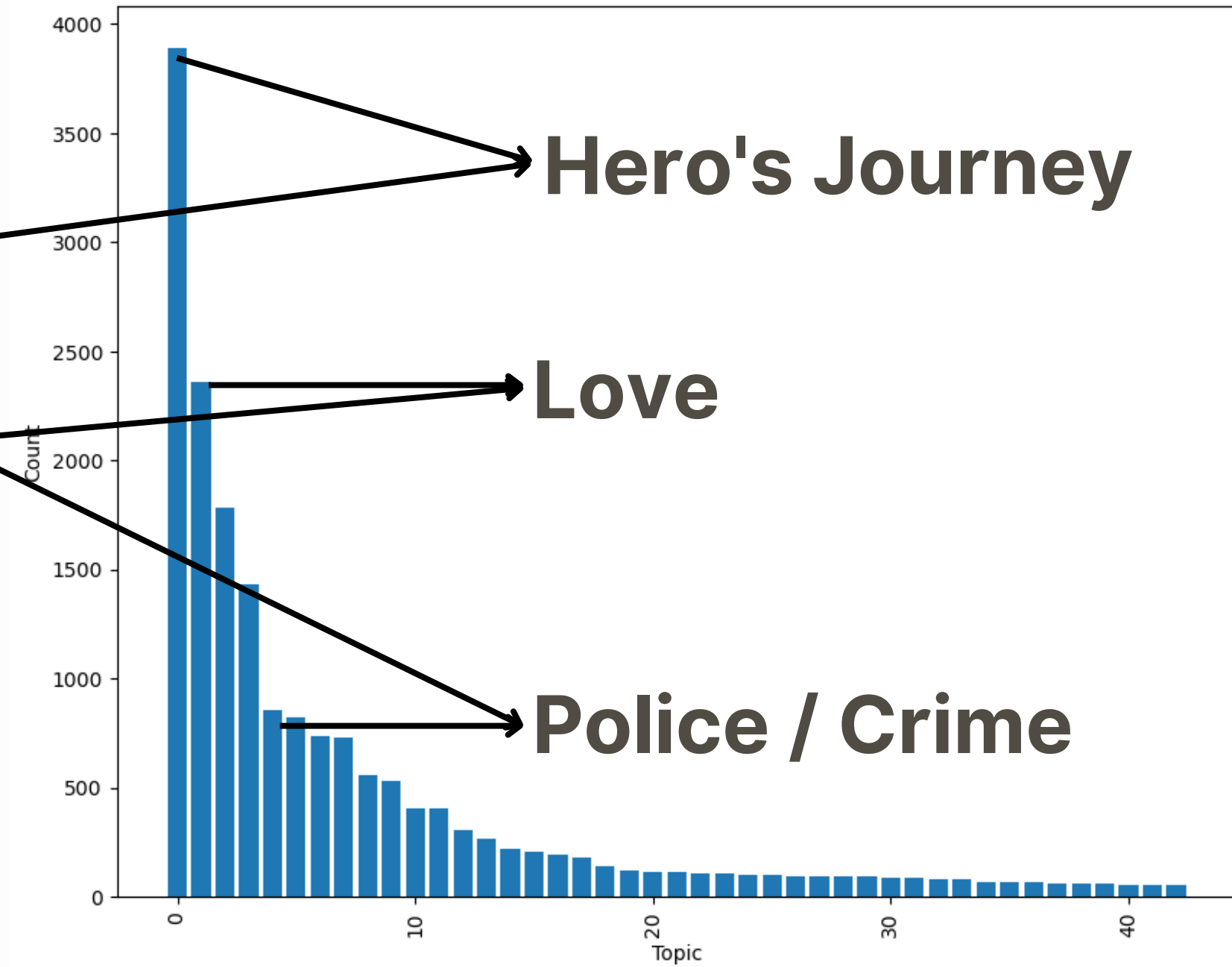
Some genre labels are
NOT intuitive



UMAP Embedding of Topics



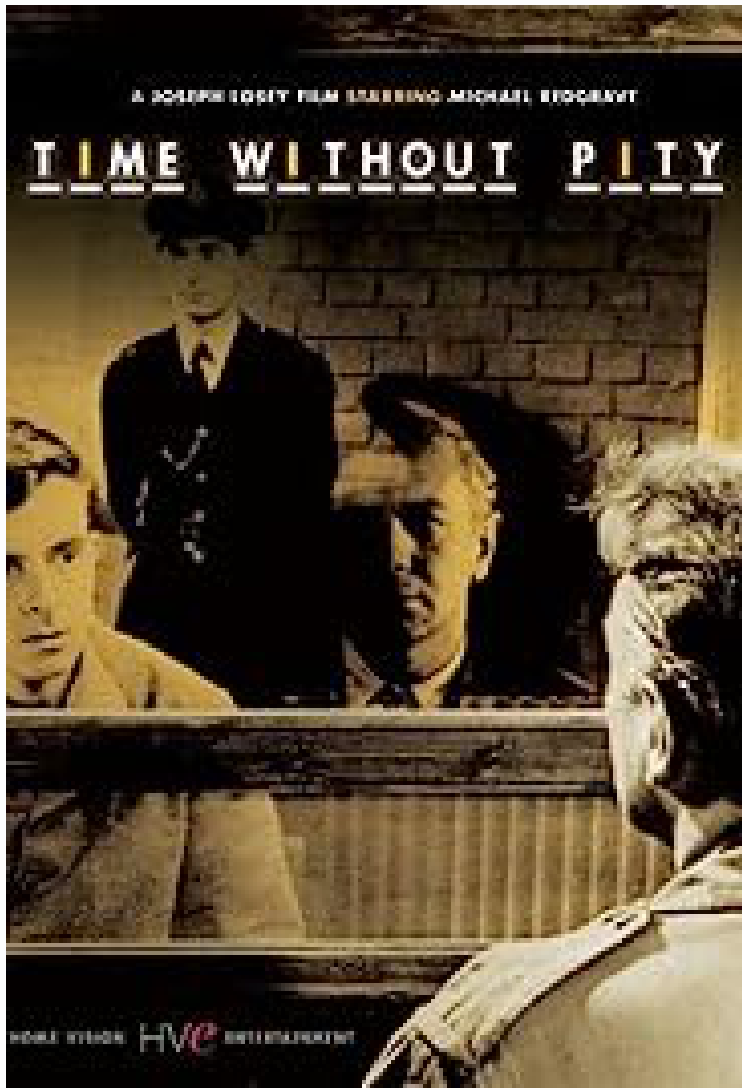
Histogram of Topic Counts



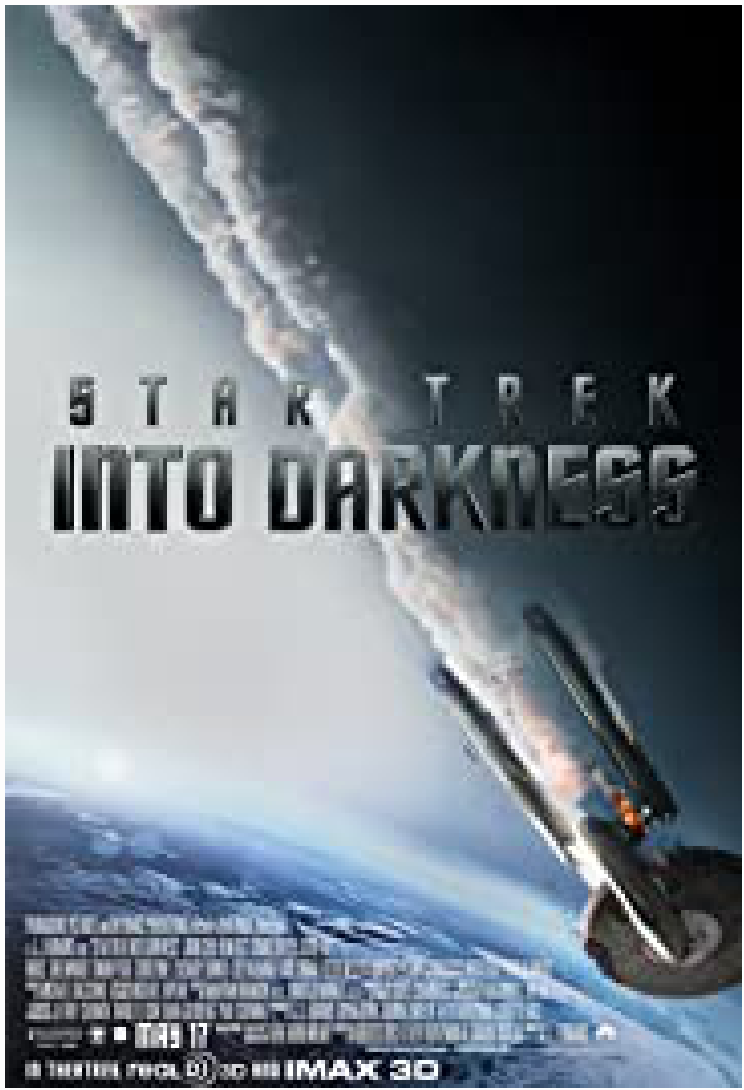
Hero's Journey



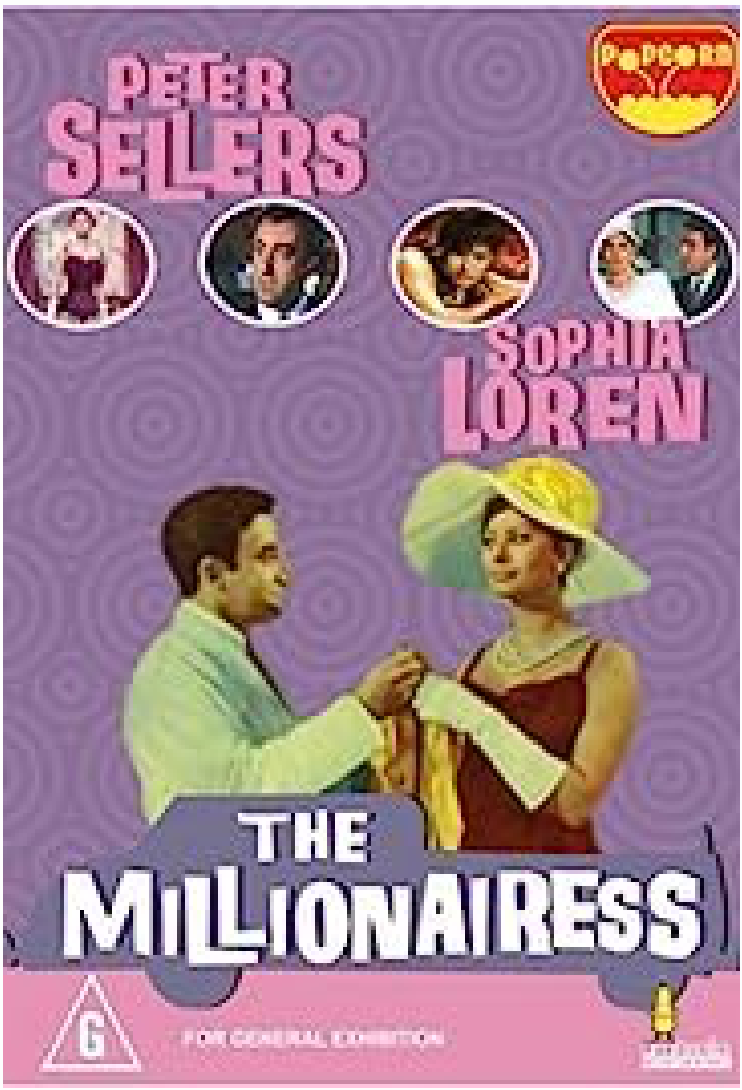
Police / Crime



Space Travel



Love



Predicting Genres

NLP

Predicting
Plot Topics

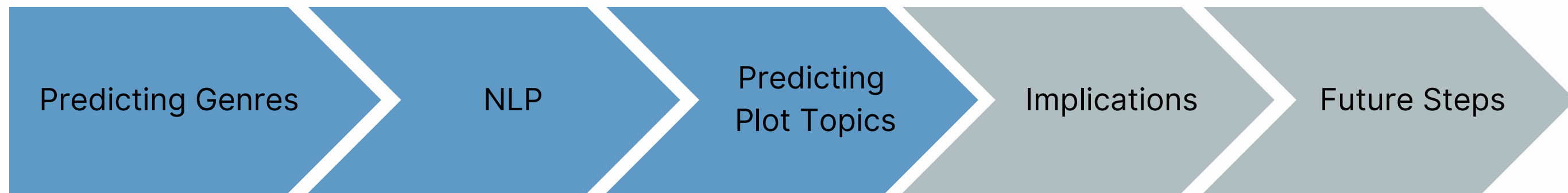
Implications

Future Steps



Model correctly predicted the plot involves [Space Travel](#)

What **plot** does this poster depict?



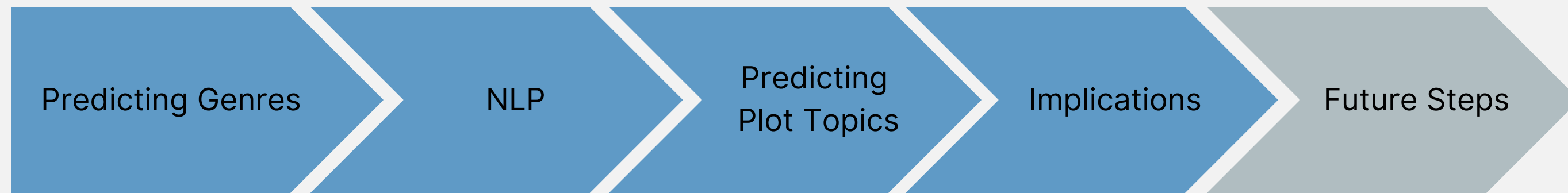
Results of Plot Prediction:

Posters with correctly predicted plot topics had even [higher average review score](#) than correctly predicted genres



Model correctly predicted the plot involves [Space Travel](#)

What **plot** does this poster depict?



Movie marketing strategies

Insights from this project can guide the creation of posters that accurately reflect movie content, improving promotions and box-office success.



Content analysis


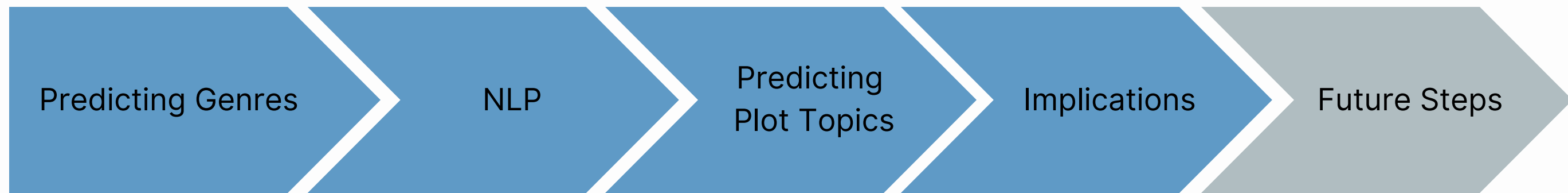
This project introduces a new method for analyzing and categorizing visual media at scale, useful across various industries.



Recommendation systems

Understanding the visual-narrative relationship can lead to visually-driven recommendations, enhancing user experience.





Accurate posters
~
Better movie performance



Posters help reveal the film's
narrative content



Assists in selecting the most
effective poster for audience
interest

Predicting Genres

NLP

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Future Steps

Adapt/Include other visual media

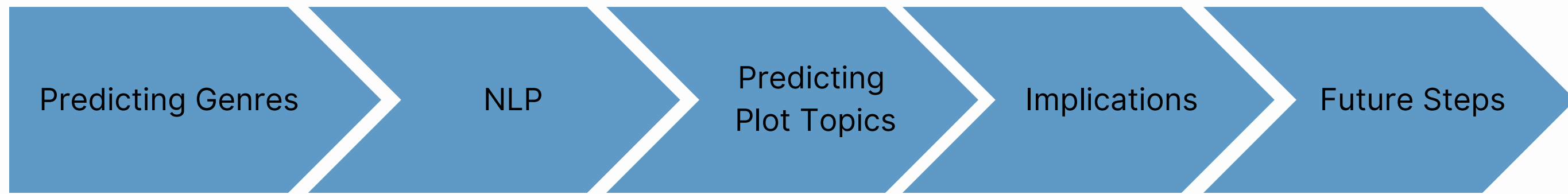
TV posters

Book covers

Video game covers

Album covers





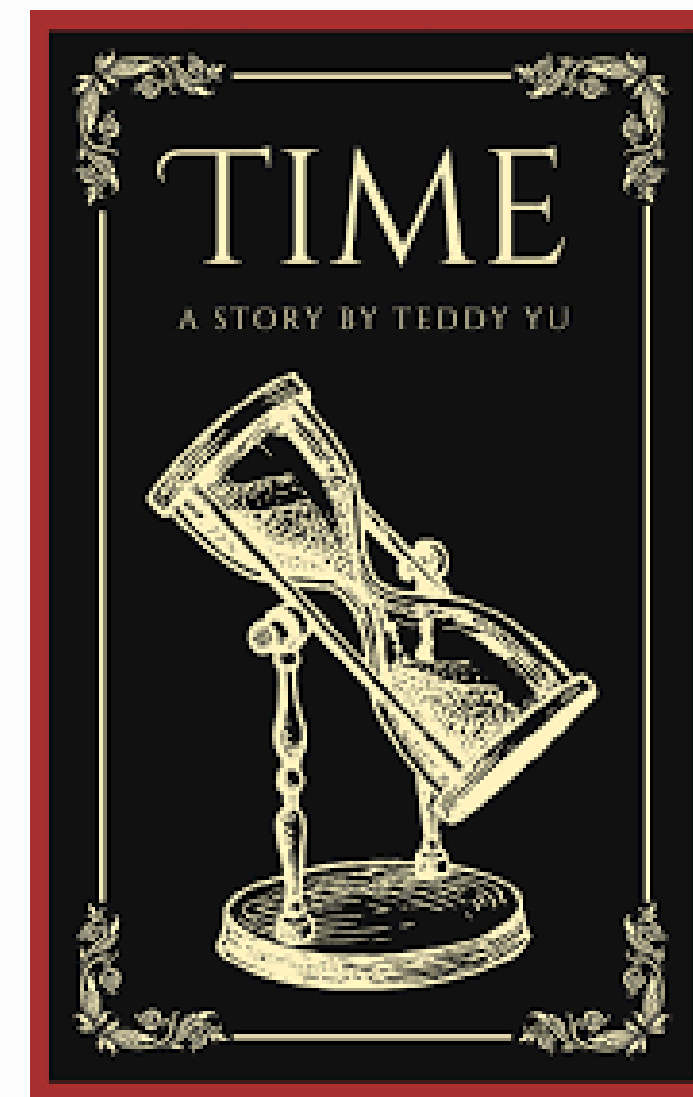
Adapt/Include other visual media

TV posters

Book covers

Video game covers

Album covers



Predicting Genres

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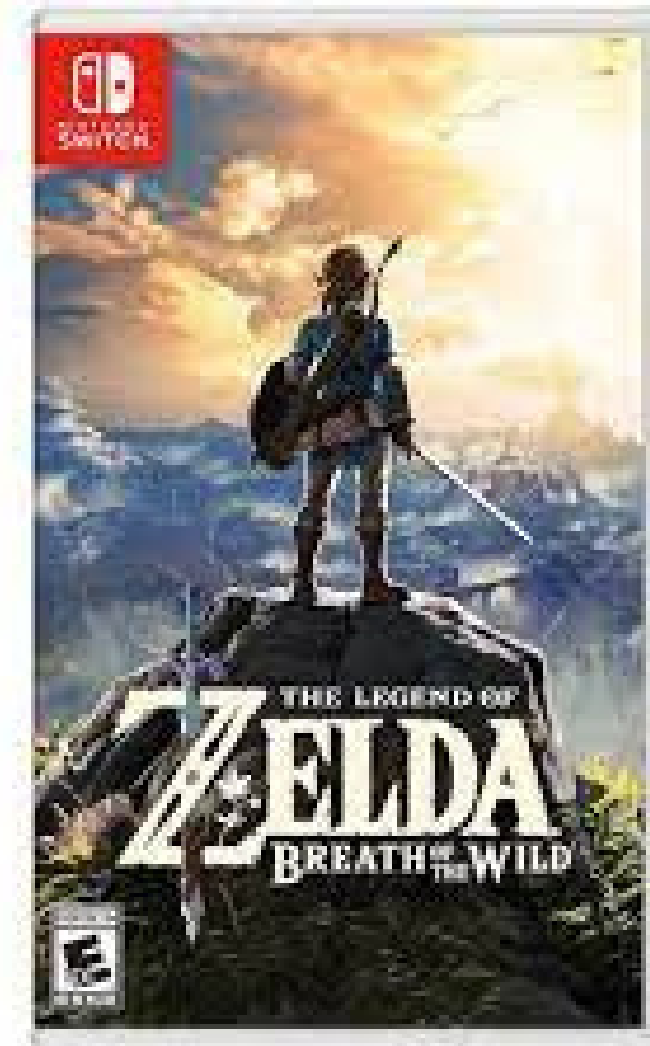
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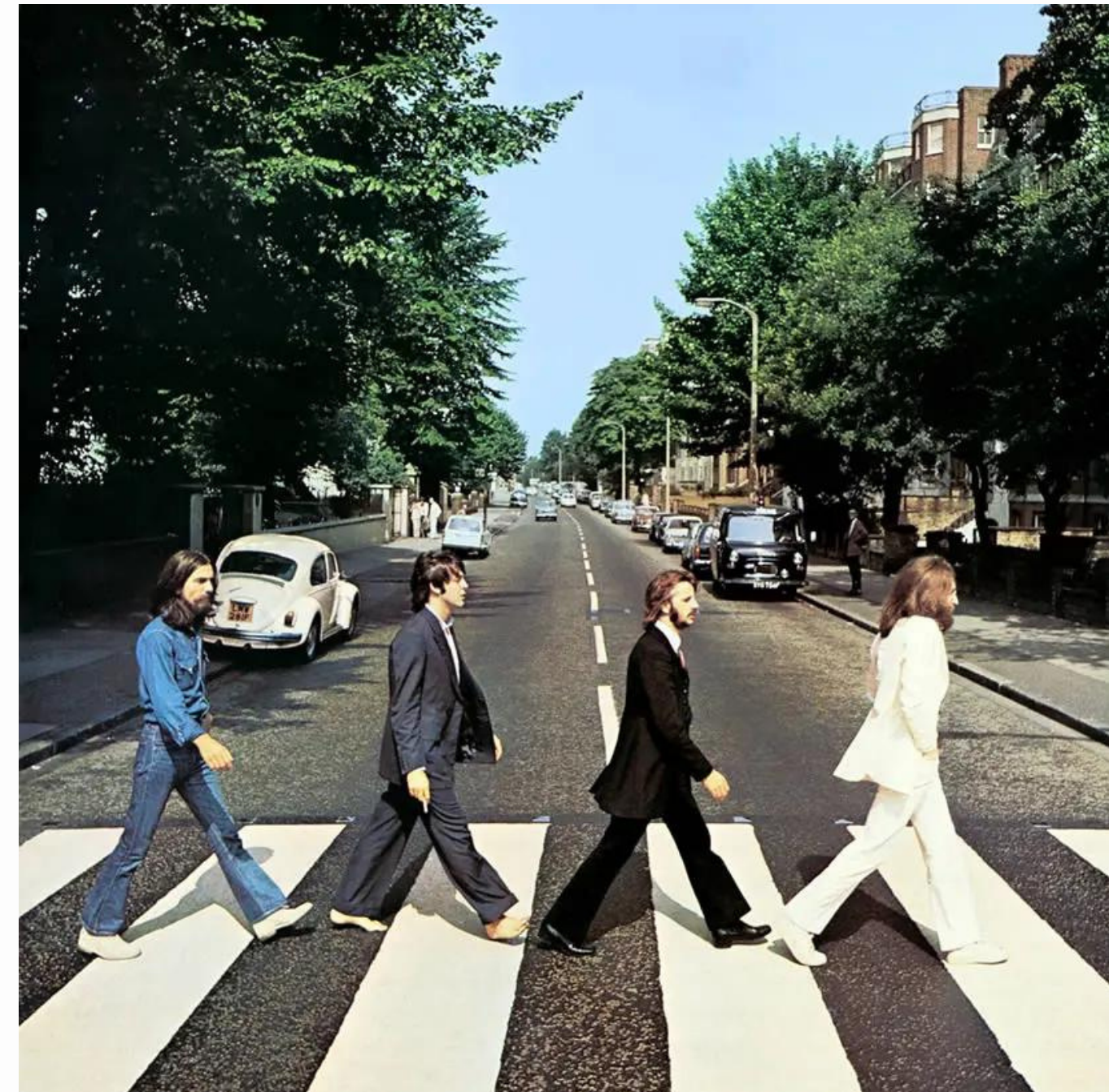
Adapt/Include other visual media

TV posters

Book covers

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Album covers



*Thank
you!*



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