

KILL BILL

Volume 3

Using Network Theory to Cast
Quentin Tarantino's Next Film

**WRITTEN AND DIRECTED
BY**

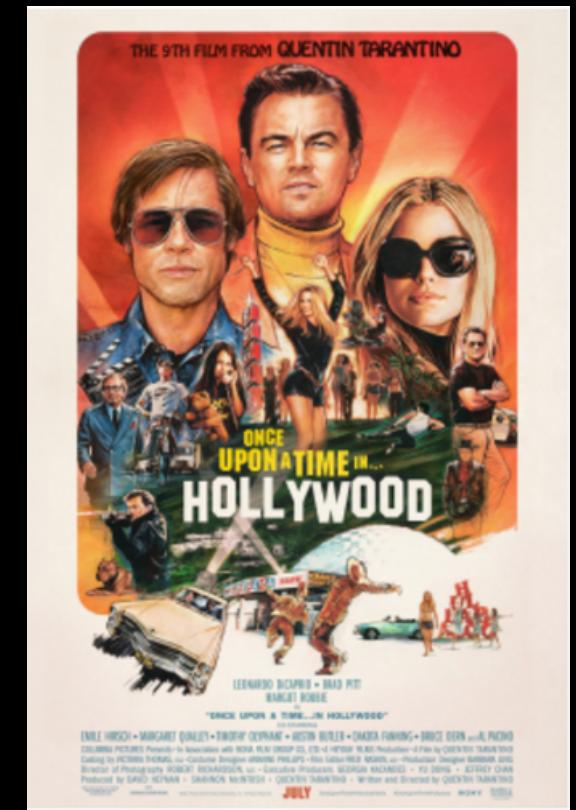
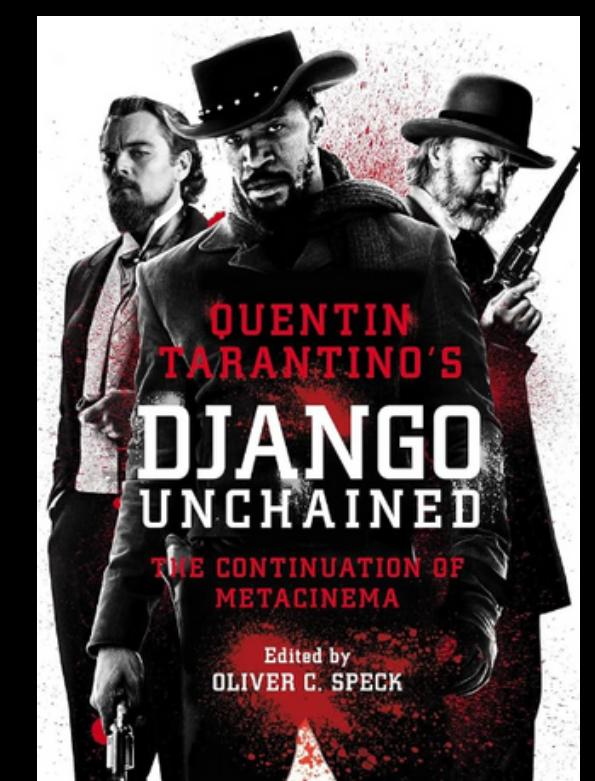
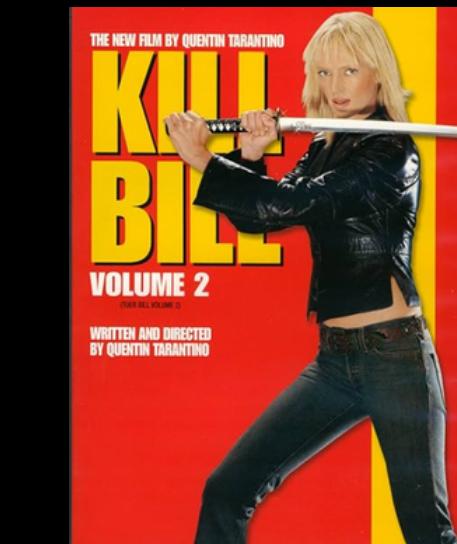
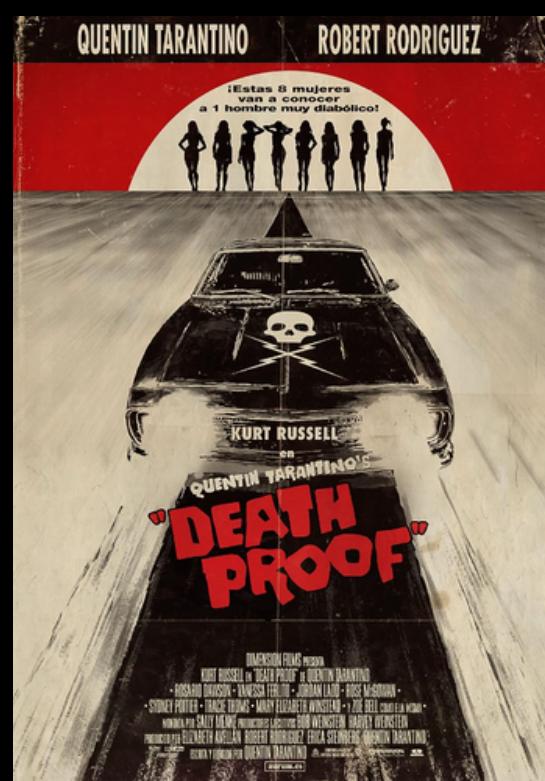
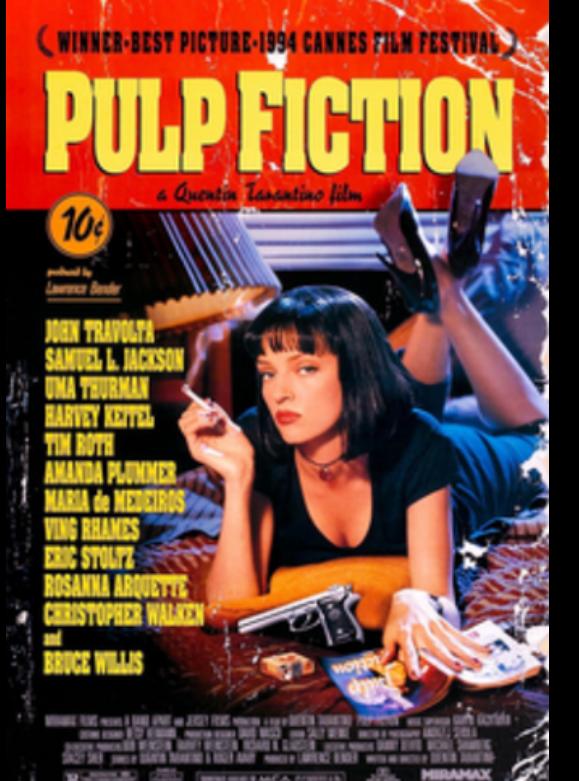
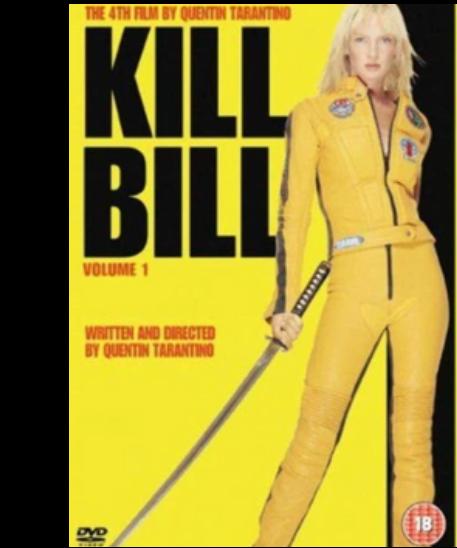
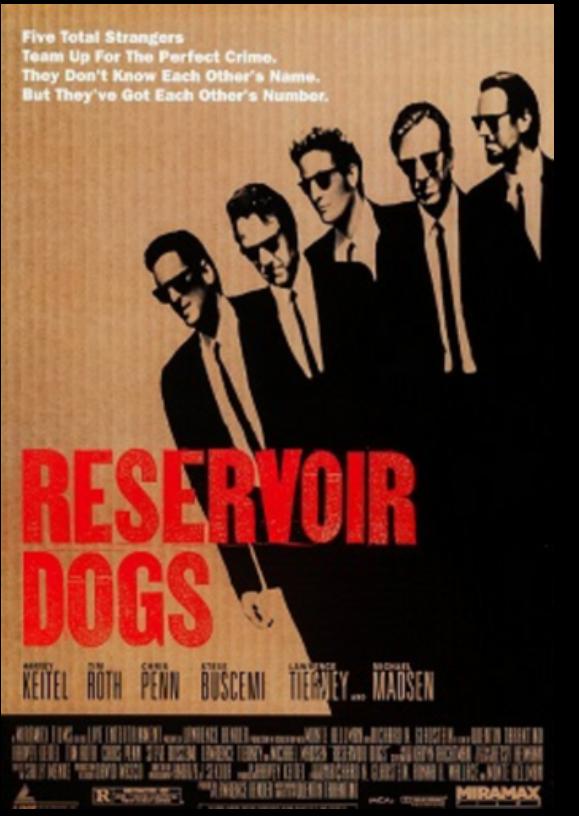
**Vincent Bianchi
Brett Lobsinger
Benjamin Lortie
Dian Wang**

Problem Framing & Background

Director Background

- One of the most celebrated directors of the 21st century
- Likes to use nonlinear narratives, pop-culture references, and lots of blood
- Ensemble casts that deliver across a variety of roles



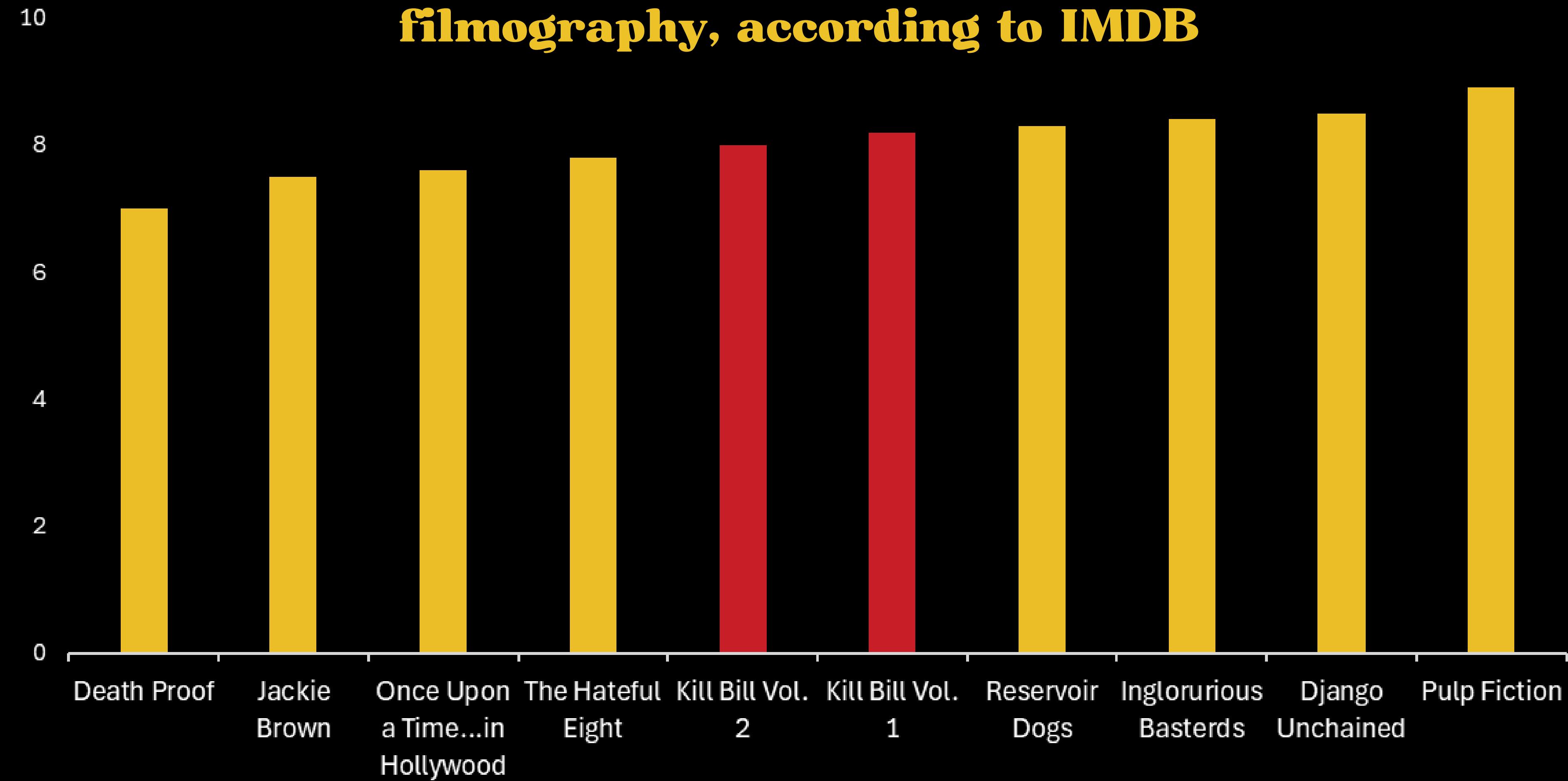


Kill Bill

- Not your average revenge story
- Follows the story of the Bride (Uma Thurman) who seeks vengeance against Bill, her former lover and the titular main antagonist
- Cast features David Carradine, Daryl Hannah, Lucy Liu, Vivica A. Fox, & Michael Madsen
- Story told across two volumes released in 2003 and 2004



The Kill Bill films are ranked right in the middle of QT's filmography, according to IMDB



Question:

**Who should Quentin
Tarantino cast for
Kill Bill Vol. 3?**

Data, Methodology, & Analysis



Data Collection & Preparation

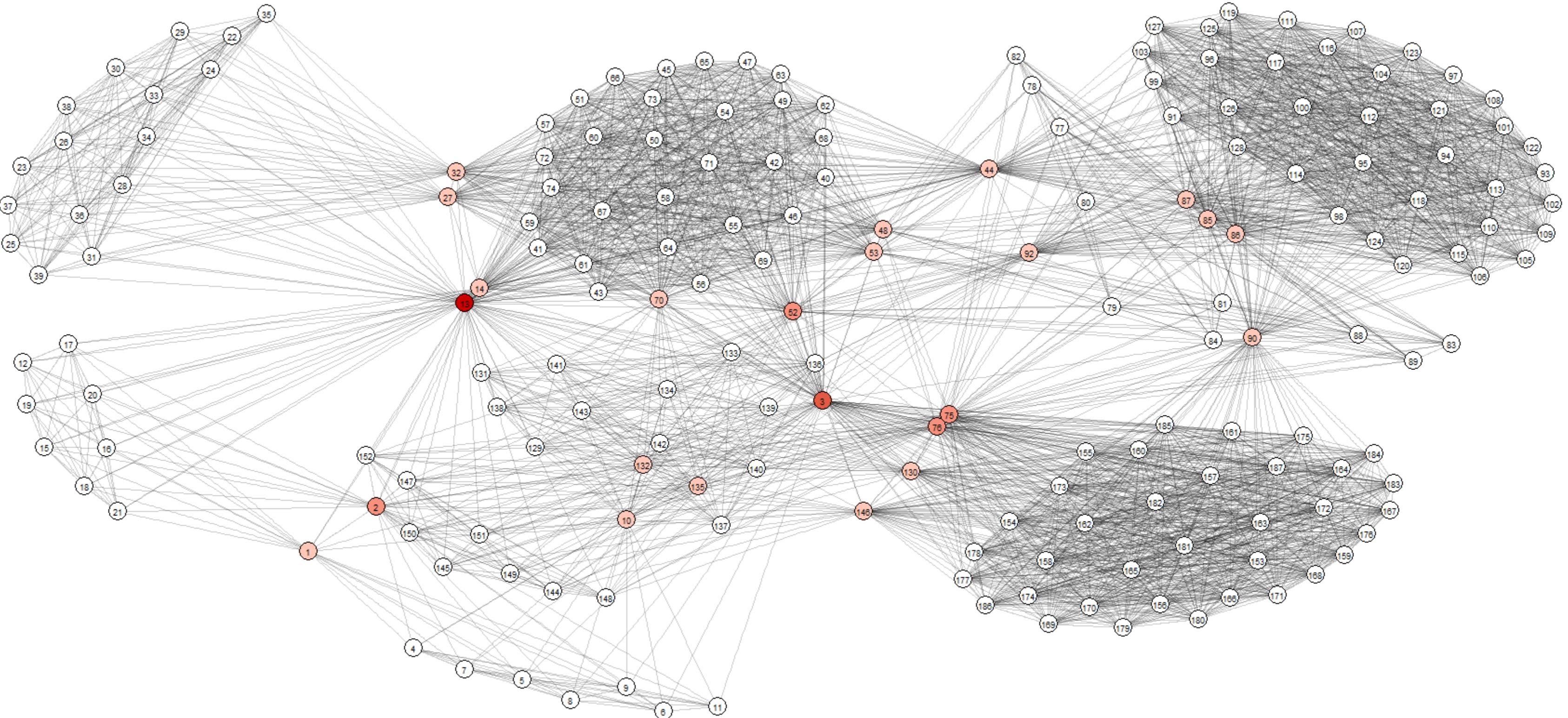
- Cast member names were scraped from the various Wikipedia pages
- IMDB ratings were added & aggregated (average) by actor
- Dummy variables were created to separate groups of actors
- Combination function found every actor-to-actor pairing from all 9 films



Nodes & Edges

- Nodes were the unique 187 actors
 - Fill varied based on the number of appearances
- Edges were the actor-to-actor connections from all the films
 - 6,000+ connections were generated from R's combination function





of Appearances

1	2	3	4	5
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A photograph of a man with long hair tied back, wearing a dark suit, white shirt, and tie. He is pointing his right index finger towards the text on the right side of the slide. He is also holding a small book or document in his left hand.

Methodology

**Centrality /
Centralization**

ERGM

Centralization Scores

0.69

Degree

0.35

Closeness

0.17

Betweenness

0.67

Eigenvector



Notable Centrality IDs

122

Degree

2

Closeness

158

Betweenness

15

Eigenvector



ERGM Interpretation

- Accounted for # of appearances & average IMDB rating in the ERGM
- Chance of forming a random tie was ~5.3%
- When accounting for IMDB rating & frequency, this increased to ~8.9%



Recommendations



The 10th Film by Quentin Tarantino

Starring:

- **Uma Thurman** - main character
- **Kurt Russell** - highest frequency combination
- **Zoe Bell** - highest frequency combination
- **Harvey Keitel** - highest multi-appearance rating

Also Starring:

- **Tim Roth** - highest frequency & lowest closeness
- **Christian Brückner** - highest degree
- **Austin Butler** - highest betweenness
- **Amanda Plummer** - highest eigenvector

Thank you!



You know something, MSBA? I think this just might be our masterpiece.