

1. Director
2. predicates:
 - MovieTitle/2:
 - closed
 - DirectorName/2:
 - closed
 - MovieBlock/2:
 - closed
 - block
 - DirectorBlock/2:
 - closed
 - block
 - DirectorOf/2:
 - closed
 - SimMovie/2:
 - closed
 - SimDir/2:
 - closed
 - SameMovie/2:
 - open
 - SameDir/2:
 - open

observations:

MovieTitle: ./data/movie_obs.txt
MovieBlock: ./data/movie_block_obs.txt
DirectorName: ./data/directors_obs.txt
DirectorBlock: ./data/director_block_obs.txt
DirectorOf: ./data/directorOf_obs.txt
SimMovie: ./data/sim_movie_obs.txt
SimDir: ./data/sim_dir_obs.txt

targets:

SameMovie: ./data/sim_movie_targets.txt
SameDir: ./data/sim_dir_targets.txt

3. // Look for text similarity.

40.0: MovieBlock(P1, B) & MovieBlock(P2, B) & MovieTitle(A1, N1) & MovieTitle(A2, N2) &
SimMovie(N1, N2) & (A1 != A2) -> SameMovie(A1, A2) ^2

40.0: DirectorBlock(P1, B) & DirectorBlock(P2, B) & DirectorName(P1, T1) & DirectorName(P2, T2) &
SimDir(T1, T2) & (P1 != P2) -> SameDir(P1, P2) ^2

// Pure transitivity

20.0: DirectorBlock(A1, B) & DirectorBlock(A2, B) & DirectorBlock(A3, B)
& SameDir(A1, A2) & SameDir(A2, A3)
& (A1 != A3) & (A1 != A2) & (A2 != A3)
-> SameDir(A1, A3) ^2

// Coauthor rectangle closure.

20.0: DirectorBlock(A1, B1) & DirectorBlock(A2, B1) & DirectorBlock(CA1, B2) & DirectorBlock(CA2, B2) &
& DirectorOf(A1, P1) & DirectorOf(A2, P2)
& DirectorOf(CA1, P1) & DirectorOf(CA2, P2) & SameDir(CA1, CA2)
& (A1 != CA1) & (A2 != CA2) & (P1 != P2)
-> SameDir(A1, A2) ^2

// Paper rectangle closure.

10.0: DirectorBlock(A1, B1) & DirectorBlock(A2, B1)
& DirectorOf(A1, P1) & DirectorOf(A2, P2)
& SameMovie(P1, P2) & (A1 != A2)
-> SameDir(A1, A2) ^2

// Self-reference.

SameDir(A, A) = 1.0 .

SameMovie(P, P) = 1.0 .

// Negative priors.

1.0: !SameDir(A1, A2) ^2

1.0: !SameMovie(A1, A2) ^2

4. precision: 0.78
recall: 0.28
f1: 0.41