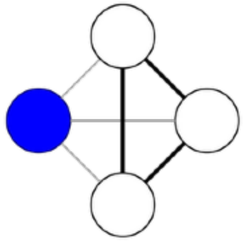
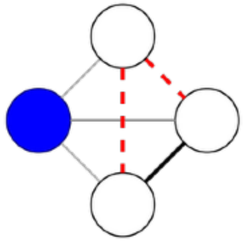
Task 8

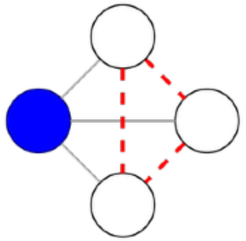
LOKALER CLUSTERKOEFFIZIENT



c = 1



c = 1/3



c = 0

$$C_i = \frac{2n}{k_i(k_i-1)}.$$

- ungerichtet

$$C_i = \frac{n}{k_i(k_i-1)}.$$

- gerichtet

$$C_i = \frac{\text{Anzahl der Dreiecke verbunden mit Knoten } i}{\text{Anzahl der „verbundenen Tripel“ zentriert an Knoten } i}$$

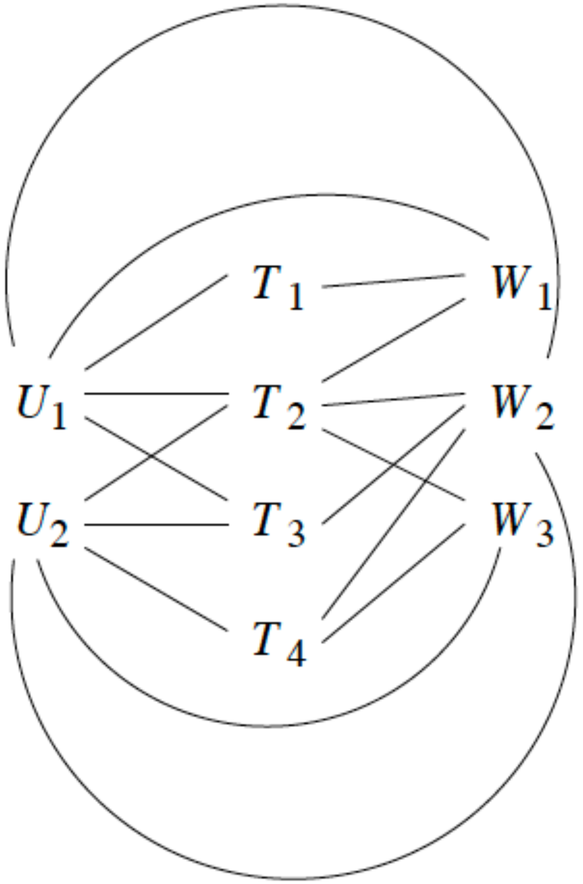
$$\bar{C} = \frac{1}{n}\sum_{i=1}^{n} C_i.$$

- Network Average Cluster Coefficient

SOCIAL NETWORKS AS GRAPHS

k-partite graph

- **multiple (k) entities**
  - Example:
    - users {U1,U2},
    - tags {T1, T2, T3, T4},
    - Web pages {W1,W2,W3}.



Source: Leskovec, J., Rajaraman, A., & Ullman, J. D. (2014). *Mining of massive datasets*. Cambridge university press.