

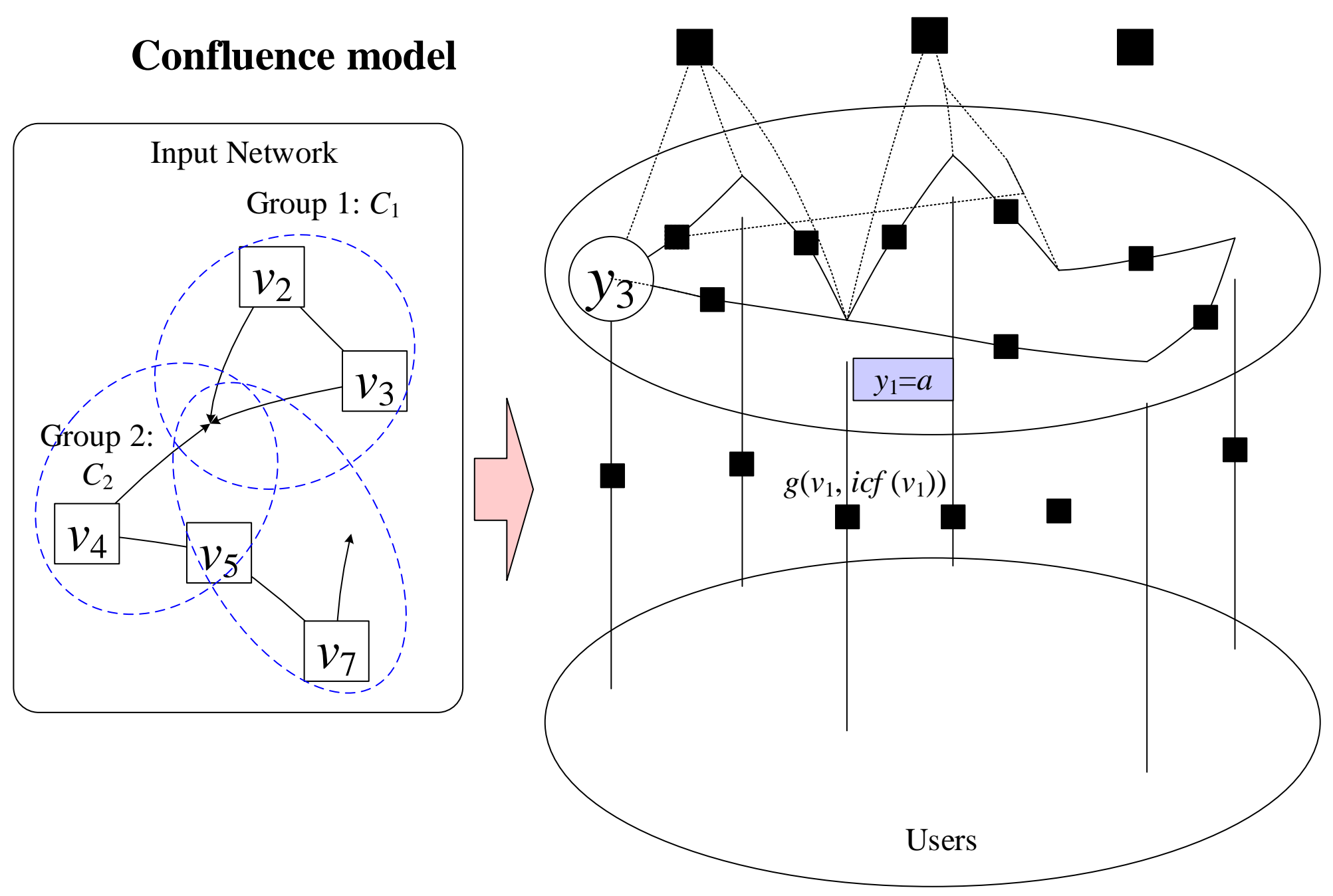
**Challenges:**

- How to construct a computational model to learn the different conformity factors?
- How to validate the proposed model in real large networks?

$$icf(v) = \frac{|\{(a, v', t) \in A_v \mid \exists (a, v, t) \in E \wedge \epsilon \geq t - t' \geq 0\}|}{|A_v|}$$

$$pcf(v, v') = \frac{|\{(a, v', t') \in A_{v'} \mid \exists (a, v, t) \in E \wedge \epsilon \geq t - t' \geq 0\}|}{|A_{v'}|}$$

$$gcf^r(v, C_{vk}) = \frac{|\{(a, v', t') \in A_{v'} \mid \exists (a, v, t) \in E \wedge \epsilon \geq t - t' \geq 0\}|}{|A_{C_k}^r|}$$



• R — A

• R — A

• A — A

• A — A

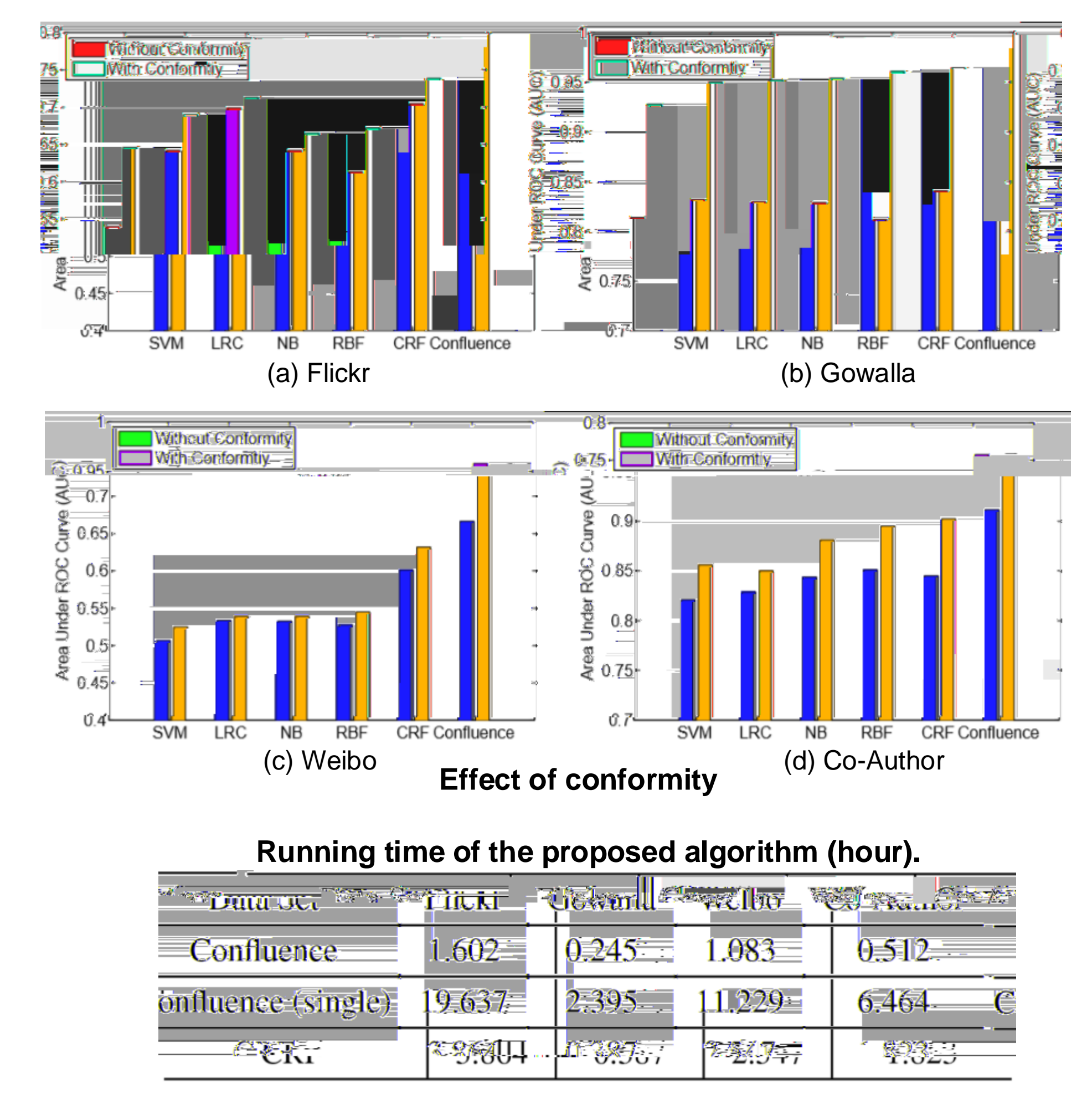
Dataset	Flickr	Gowalla	Weibo	Co-Author
#edges	208,118,719	950,377	308,489,739	2,416,472
#groups	460,888	N/A	N/A	60
#actions	3,531,801	6,442,890	6,761,286	1,974,466

Support Vector Machine (SVM)—  
 Logistic Regression (LR)—  
 Naive Bayes (NB)—  
 Gaussian Radial Basis Function Neural Network (RBF)—  
 Conditional Random Field (CRF)—R

• Prediction accuracy: R A RA

• Scalability performance:

• Qualitative case study: R



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