THS-GWNN: A Deep Learning Framework for Temporal Network Link Prediction

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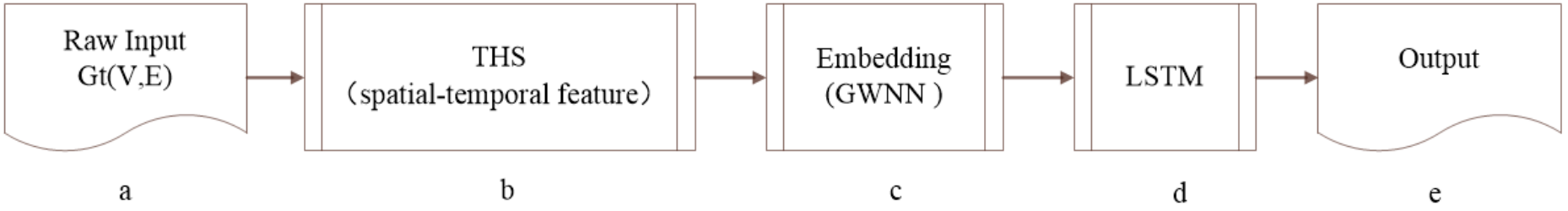
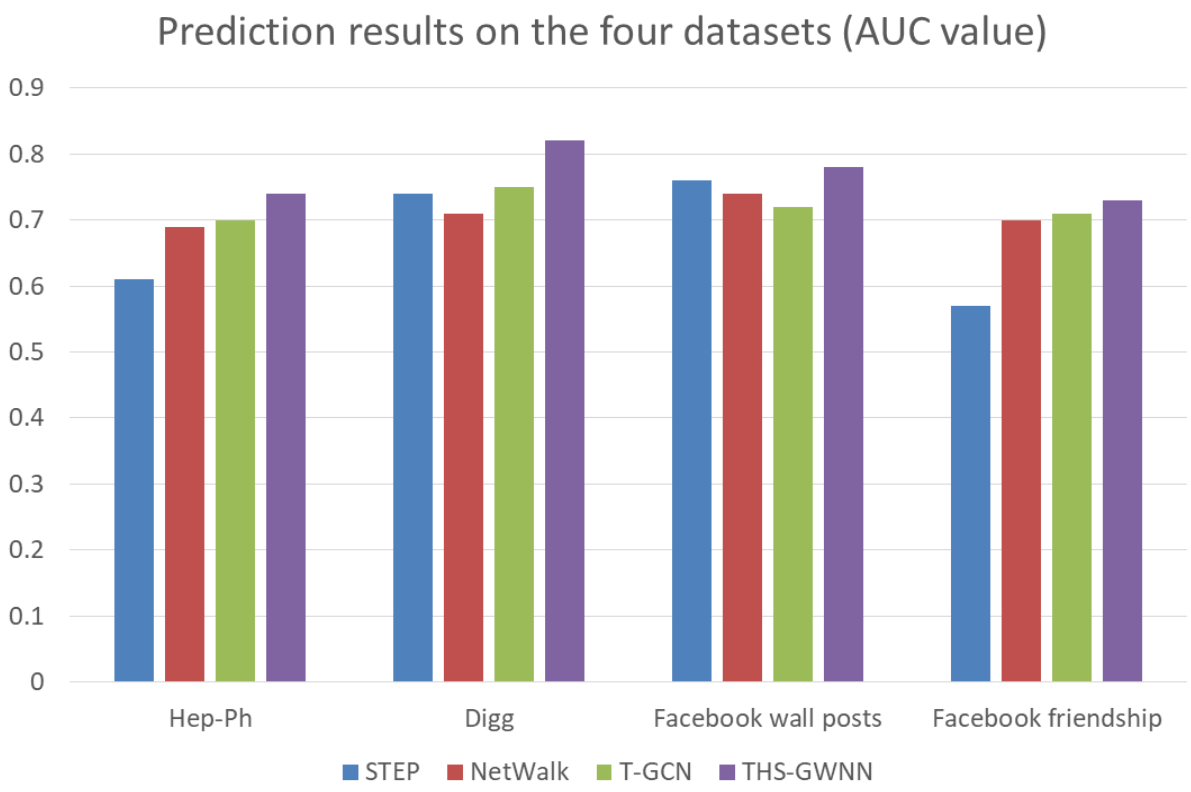
Frontiers of Computer Science, DOI: 10.1007/s11704-020-0092-z

Problems & Proposed solution



- Problems of Link Prediction on Temporal Networks
  - How to encode high-dimensional and non-Euclidean information?
  - How to reveal the spatial-temporal structure of networks?
- Proposed solution : THS-GWNN（ the figure above ）
  - THS algorithm: modeling network evolution.
  - GWNN: capturing nonlinear features.
  - LSTM: capturing the time dependence for link prediction.

Main Contributions



Our method, THS-GWNN, achieves the best performance.