
A Diversity-Promoting Variational Autoencoder for Paraphrase Generation

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Abstract

TBC

1 Introduction

The paraphrase task and its importance.

The diversity objective.

The VAE framework

How stochasticity (in VI) induces diversity (in Paraphrasing)

Our model and results

2 Related Work

Paraphrasing and Language Diversity

Variational Autoencoders

3 Methods

VAE with Gaussian mixture latent variables

Modeling different sentence realization with different modes in Gaussian mixture

Tackling the posterior collapse problem

4 Experiments

The dataset

Baselines

Preprint. Work in progress.

5 Conclusion

References

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- [2] Bower, J.M. & Beeman, D. (1995) *The Book of GENESIS: Exploring Realistic Neural Models with the GEneral NEural Simulation System*. New York: TELOS/Springer-Verlag.
- [3] Hasselmo, M.E., Schnell, E. & Barkai, E. (1995) Dynamics of learning and recall at excitatory recurrent synapses and cholinergic modulation in rat hippocampal region CA3. *Journal of Neuroscience* **15**(7):5249-5262.