Generating Explanation Sentences for Personalized Recommendation

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Abstract

Current explainable recommendation models mostly generate textual explanations based on pre-defined sentence templates. However, the expressiveness power of template-based explanation sentences is limited to the predefined expressions, and manually defining the expressions require significant human efforts. We propose a hierarchical sequence-to-sequence model for personalized explanation generation. Different from conventional sentence generation in NLP research, a great challenge of explanation generation in e-commerce recommendation is that not all sentences in user reviews are of explanation purpose. To solve the problem, we further propose an auto-denoising mechanism based on topical item feature words for sentence generation.

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