

论文与报告

基于依赖关系的定义类问题回答系统

曹均阔, 黄萱菁

1. 复旦大学计算机学院 上海 200433

2. 南昌航空大学计算机学院 南昌 330036

收稿日期 2008-7-17 修回日期 2009-2-20 网络版发布日期 接受日期

摘要

定义句模板和关联词向量作为候选定义句选择的常用特征, 前者确定定义的表达形式, 后者确定定义的叙述内容. 目前, 大多数定义类问题回答系统中都是根据问题Target及其周边词之间的相对位置关系来提取定义句模板和关联词. 在这种基于位置关系的基础上提出了基于依赖关系的定义句模板和关联词抽取方法, 然后将这些特征应用到改进的在线算法MIRA (Margin infused relaxed algorithm), 从而实现了对候选定义句子的排序. 这种改进的MIRA算法能够根据学习进程自动调整约束条件, 从而提高算法的收敛速度与性能.

关键词 [定义类问题回答](#) [MIRA](#) [依赖关系](#) [在线算法](#)

分类号 [TP391](#)

A Definitional Question Answering System Based on Dependency Relation

CAO Jun-Kuo, HUANG Xuan-Jing

1. School of Computer Science, Fudan University, Shanghai 200433

2. School of Computer Science, Nanchang Hangkong University, Nanchang 330036

Abstract

Definitional pattern and centroid word vector are the popular features for definitional question answering. The former determines how to describe the information, and the latter determines what topics should be concerned. Most current systems use sequence pattern and sequence centroid words extracted only by relative position to question target to identify definition sentences. In contrast to sequence knowledge, we propose dependency-based knowledge, including dependency pattern and dependency centroid word extracted by dependency relation to question target. Specifically, we use the improved ultraconservative online algorithm and margin infused relaxed algorithm (MIRA) for the task of candidate sentences ranking. Experiments have demonstrated that the improved MIRA can greatly increase the system performance in terms of progressive reduction of optimization constraints as training moves forward.

Key words [Definition question answering](#) [margin infused relaxed algorithm \(MIRA\)](#) [dependency relation](#) [online algorithm](#)

DOI: 10.3724/SP.J.1004.2009.01429

通讯作者 曹均阔 junkuocao@gmail.com

作者个人主页 曹均阔; 黄萱菁

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF \(2010KB\)](#)

▶ [\[HTML全文\]\(0KB\)](#)

▶ [参考文献\[PDF\]](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

相关信息

▶ [本刊中 包含“定义类问题回答”的相关文章](#)

▶ 本文作者相关文章

· [曹均阔](#)

· [黄萱菁](#)