

臺北市立大學資訊科學系

Department of Computer Science

University of Taipei

碩士論文

Master's Thesis

中文財務情緒字典建構與其在財務新聞分析  
之應用

On the Constructure and analysis of chinese  
financial sentiment lexciconon for Financial  
News

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中華民國一百零三年四月

April 103

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On the Constructure and analysis of chinese financial  
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臺北市立大學  
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碩士論文

A Thesis  
submitted to Department of Computer Science  
University of Taipei  
in partial fulfillment of the Requirements  
for the degree of  
Master  
in  
Computer Science

中華民國 一百零三年 四月  
April 103

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## 致謝

我還要感謝實驗室的所有成員，陪伴我兩年的研究所生涯，這是一段不可或缺的回憶，讓我不論是在課業或者生活上都充實許多，謝謝！

姓名

國立政治大學資訊科學系

September 2013

## 中文摘要

本論文提出了一種音樂推薦方法基於結合各種相似度資訊於分解機器（Factorization Machine）模型中。 ...

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On the Constructure and analysis of chinese financial sentiment lexciconon for Financial  
News

## **Abstract**

This paper proposes a music recommendation approach based on various  
similarity information via Factorization Machine (FM). ...

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# **Chapter 1**

## **Introduction**

Music usually carries people's emotions, and people usually express their feelings by writing articles while listening to music. ...

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# Chapter 2

## Related Work

Recommendation systems are widely deployed in commercial business, with collaborative filtering (CF) being one of the most popular models. ...

### 2.1 Contextual Recommendation Systems

Traditional recommendation methods can be separated into two main categories: Collaborative Filtering and Content-based Filtering. Many famous commercial recommendation systems are based on these methods, such as the ones used by Youtube or Amazon [1]. ...

### 2.2 Factorization Machines

Many studies ...

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# Chapter 3

## Methodology

Our proposed approach further integrates the similarity information with the framework to capture the similar patterns from the referred objects. Below we further describes the Factorization Machines and the difference between our approach.

### 3.1 Standard Factorization Machine

Factorization Machines can act like most factorization models by feeding various types of features. ...

### 3.2 Grouping Factorization Machine

Factorization Machines provide a good framework for modeling the interactions between features, but sometimes similar type of features may cause confusion while learning, especially with a large number of features. ...

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# Chapter 4

## Experimental Results

### 4.1 Experimental Settings

#### 4.1.1 Dataset

Our experiments are performed on a real-world dataset collected from a commercial web-sites – LiveJournal <sup>1</sup>.

#### 4.1.2 Evaluation Metrics

We employed two metrics to evaluate the recommendation performance: the truncated mean average precision at  $k$  (MAP@ $k$ ) and recall.

### 4.2 Contextual Recommendation System

This section we focus on presenting the work of how to model the relationship between user's mood and user's listening behavior. ...

#### 4.2.1 CF-based Recommendations

Our first evaluation focuses on the use of CF information only for music recommendation. We compare FM with the following three well-know CF methods: user-based CF, item-based CF, and a SVD-based approach. Below we describe the main ideas of the methods. ...

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<sup>1</sup><http://www.livejournal.com/>

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# **Chapter 5**

## **Conclusions**

In a conclusion ...

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- [1] Factorization machines with libfm. *ACM Trans. Intell. Syst. Technol.*, 3(3):57:1–57:22, May 2012.

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