

**本科毕业设计（论文）**

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**题目：在线社会学习系统的大数据挖掘**

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**摘 要**

在线社会学习系统是一种包含网络教学行为的社交网络。在线社会学习分为：视频点播、直播、慕课和反转课堂等。目前，在线社会学习系统快速发展，成为当下和未来的一种重要教育模式。随着教学模式不断丰富，学生和教师参与度不断增加，教学效果也越来越好。

在线社会学习系统既保留了传统教学行为过程中的许多特点，又包含很多社交网络的属性。比如在教学过程中包括四种学习模式：课堂学习、课文，考试以及答疑，对应在线系统上的视频学习、课文资源、测评以及论坛；而在课程的选择、课堂表现、参与论坛等方面又具有显著的社交网络特征。用户在系统上产生的数据大量地体现出这两方面的特点。对在线社会学习系统的用户数据进行分析和挖掘能帮助我们研究学生在使用系统的过程中所关注的问题，以及在“强制要求”和“自由选择”之间的联系。

本文通过分析对在线社会学习系统的论坛进行的文本数据挖掘来阐释系统元素之间的关系。

关键词 在线学习 文本挖掘 关联分析 聚类分析

**Big Data Mining On Social Learning Systems**

**ABSTRACT**

Social Learning Network (SLN) is a kind of social networking system contains online lectures. There are several types of SLN, which are lecture videos, lives, MOOCs (Massive Open Online Courses) and FLIPs, etc. So far, SLNs have been developing drastically and have become an important module of education. As the learning modules are diversified, students and teachers participate more and the experiences are enhanced a lot.

SLNs have reserved many features of traditional teaching behavior; meanwhile, they have derived many attributes from Social Networking Systems. For example, there are usually 4 modalities of traditional classes which are lectures, textbooks, exams and Q&A corresponds to videos, text resources, quizzes and forums in SLNs. As for course choosing, class behaviors and forum behaviors which apparently reflect the signature of social networks. Massive user data on SLNs shows these two aspects of systems. Big Data Mining on social learning systems helps us concentrate on user experience, and study on the differences between what teachers demanded and what students does on the systems.

This article illustrates the connections between some elements of SLN through analysis of text data mining on the forums.

**KEY WORDS** online courses text data mining association analysis cluster analysis

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