

[論文名稱] 線上社群搜尋

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[摘要] 隨著各式各樣線上社群網站之興起，目前已有超過 12 億人每日使用社群網路服務，且每五分鐘網際網路的使用就包含至少一分鐘之社群網站使用。知名媒體如 Businessweek、CNN、New York Times 均提到社群網路除了讓一般人每日生活更為便利之外，在經濟、政治、社會各層面亦已被證實有顯著之影響。然而，相較於已成熟之關聯性資料庫與地理資料庫，社群搜尋資料庫相關技術目前仍未成熟。因此，我們首先將介紹線上社群應用所產生新的社群搜尋與最佳化研究議題，探討相關問題在電腦科學中的不可近似性。接著，我們將介紹所設計的近似演算法，其中亦包含社群網路研究中社會學與心理學之跨領域重要因素。最後，我們將呈現相關研究於 Facebook 之實作成果。

Abstract – With the emergence of varied social networking services, now over 1.4 billion users around the world visit social networking websites everyday, and nearly 1 in every 5 minutes spent online is on social network applications. As reported by renowned media such as Bloomberg Businessweek, CNN, and New York, the impacts of social networks have penetrated not only in business and politics but also in everyday life. However, compared to searching in transactions and spatial databases, people group search in online social networks is still in its infancy. In this talk, therefore, we will first introduce new search and optimization problems for people group search in different applications for online social networks, together with the corresponding hardness results of complexity theory in computer science. We will then introduce several new approximation algorithms to solve the corresponding problems. Important factors in interdisciplinary research in Sociology and Psychology for online social networks are also involved. Implementations on Facebook will be presented finally.