研究論文

平台「熱趨同」：基於新浪微博的內容熱度與相似度網絡中心度關聯結構分析

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摘要

社交媒體的熱門內容看似主題多元，實際上是否在隨著其熱度增長而有規律地越來越趨同？本研究基於新浪微博7,869,861條帖子樣本聚類後的類相似度矩陣，對微博資訊內容在相似度矩陣中的中心性與其熱度間的關係與結構進行實證分析，以考察新浪微博內容隨著熱度增長而表現出的趨同態勢和演變結構。研究發現：平台中資訊內容類在類相似度矩陣中的中心度與其類熱度成正比；進一步分析顯示，微博平台輿論存在頭部資訊隨著熱度升高而成正比收窄的「熱凝聚」現象；平台的 $N{\times}N$ 內容相似度矩陣具有「核心－邊緣」結構；平台任意兩個內容類之間的相似度，與這兩類的熱度之和成正比、與這兩類的熱度之差絕對值成反比，並可經由線性迴歸方程進行預測。本文嘗試打

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破社交媒體平台內容碎片化、去中心化的觀點，強調了分化背後的潛在統一性，揭示了平台內部封閉性和整體性的趨同結構，且這種趨同性隨著熱度增長而亦發生梯度增長。

關鍵詞：社交媒體、平台內容、中心度、熱度

Research Article

The "Hot Convergence" of the Platform: An Analysis of the Correlation Structures of the Centrality and Content Popularity and of the Similarity Network Based on Sina Weibo

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Abstract

"Hot" content in social media seems to be based on multiple themes. However, has such content become more similar because of its increasing popularity? This study aimed to refute the view of social media content as fragmented and decentralized. A class similarity matrix was obtained by clustering 7,869,861 posts on Sina Weibo. An empirical analysis of the relationships between matrix centrality and the popularity of Weibo content was conducted to investigate the convergence and evolving structure of Sina Weibo content based on its increasing popularity. The results showed that the centrality of the class of content in the similarity matrix was proportional to the prevalence of the content. Further analysis revealed the phenomenon of "hot convergence" in the blog platform. The results of the trial showed that the main topics converged in proportion to the increase in their popularity. The results

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also showed that the *NxN* similarity matrix of platform content had a "core–periphery" structure. Moreover, the similarity between any two content categories on the platform was proportional to the sum of the "hotness" of the two categories but inversely proportional to their absolute differential values, which was predicted by linear regression. The findings of this study showed that potential unity underlies divergent content, which indicated a closed and aggregated convergence structure that increased incrementally in proportion to increasing trends within the platform.

Keywords: social media, platform content, centrality, hotness

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