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「臺灣音樂群像資料庫」人物社會網絡研究

RESEARCH ON THE SOCIAL NETWORK OF CHARACTERS IN "THE ONLINE
DATABASE OF TAIWANESE MUSICIANS."

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中文摘要

臺灣音樂館於 2011 年建置之音樂人物導向網站—「臺灣音樂群像資料庫」，為搭上國家型數位典藏計畫（2002-2012）末班風潮而建置的人物主題網站，數位典藏計畫告一段落後，接續的數位人文研究有方興未艾之勢，其中社會網絡分析屬於數位人文研究一環，臺灣音樂界的人物網絡分析尚未有相關研究。有鑑於此，本研究從「臺灣音樂群像資料庫」170 位人物生平萃取出臺灣音樂發展的組織及活動權威詞彙，運用權威詞彙共現的關係建置出人物之間的關聯矩陣，並利用社會網絡分析和統計分析，探討影響權力差異的網絡中心性是否因專業領域而有所不同，進而依中心性將音樂家分群，觀察不同中心性集群的領域特性、描述臺灣音樂家網絡的樣貌，瞭解臺灣音樂環境的發展概況。

研究結果顯示，臺灣音樂群像網絡為網絡幅度不大、核心邊陲分明的中型網絡，作曲家為彼此交流最密切的領域，其自我網絡最大、連線數最多，且大多位於核心區，所在位置使該領域較易成為網絡中具影響力的領導者。南管、原住民、音樂行政為領域內人物皆互有連線的完備領域，代表這幾個領域人物所接觸涉獵的單位組織較為相近，反之，領域內人物之間完全無連線的領域為樂器和音樂文字作家，顯示領域內人物各自發揮無交集。音樂行政具有需要與其他單位和領域交涉的特質，使其中心性高的機率較其他領域高。單因子變異數（One-way ANOVA）分析的結果，顯示領域和三種中心性之間皆有顯著差異，事後檢定參考變異數同質的程度中心性，指揮領域的程度中心性明顯高於客家領域。從集群分析來看，傳統音樂領域人物大多位於中心性偏低的邊緣與邊陲集群。

未來研究建議有以下兩個方向，其一是縮小範圍，選擇網絡內研究對象同質性高的同領域或是同集群人物，探討人物與組織、單位之間的二模關係；其二是擴大研究時空，推展至與外在社會脈動關聯研究，更能推論出新的趨勢及觀點。

關鍵字：社會網絡分析、臺灣音樂家、臺灣音樂群像、數位人文

Abstract

The Taiwan Music Institute established a musician-oriented website, *The Online Database of Taiwanese Musicians*, in 2011, which followed the last trend of the Taiwan e-Learning and Digital Archives Program (2002-2012). This Program has fallen behind, and the following Digital Humanities Research is in the ascendant. Social network analysis belongs to the Digital Humanities research. There is no relevant research on the network analysis of Taiwanese music. In view of this, this study extracts the organization and activity authority vocabulary of Taiwanese music development from musician's Chronology from 170 musicians of *The Online Database of Taiwanese Musicians*, constructs an association matrix between the characters by using the co-occurrence relationship of authoritative vocabulary, and uses social network analysis and statistical analysis to explore whether the network centrality of influencing power differences varies according to the professional field, and divides the musicians into groups according to the centrality, and observes the differences. The field characteristics of different central clusters are observed, the appearance of the Taiwanese musician network is depicted, and the development of the Taiwanese music environment understood.

The research results show that the Taiwanese music network is a medium-sized network with a clear core and periphery. Composers are then able to communicate most closely with each other having the largest self-network and the largest number of connections-with most are located in the core area. Their location makes it easier for them to become influential leaders in the network. Nanguan, aborigines and music administration are complete fields in which the characters in the field are connected to each other. It indicates that the organizations involved in these fields are closer to each other. In contrast, the areas where there is no connection between the characters in the

field, are musical instruments and music writers, showing that the characters in the field do not intersect. Music administration has the characteristics of negotiating with other units and fields, which makes it more central than other fields. The results of the One-way ANOVA analysis show significant differences between the field and the three centralities. The degree centrality of homogeneity of reference variance is verified in the Post hoc test. The degree of centrality in the conductor field was significantly higher than that in the Hakka field. From the perspective of cluster analysis, most of the characters of the traditional music field are located at the edge of the low centrality and periphery area.

There are two directions for future research. One is to narrow down the scope, select the same domain or the same cluster of people with high homogeneity in the network, and explore the two-mode relationship between people and organizations and units. The second is to expand the research space and time, and to study the correlation with external social pulsation, so as to infer new trends and viewpoints.

Keywords: social network analysis, Taiwanese musician, The Online Database of Taiwanese Musicians, Digital Humanities