Discovering relationships among land deeds in THDL – the Taiwan History Digital Library

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THDL, the Taiwan History Digital Library, is a full text database of primary historical documents built at the National Taiwan University.   One corpus of THDL includes about 30,000 land deeds, which is unprecedented in terms of scale, time span – over 250 years, area – the entire western plains of Taiwan, and sources – over 50.   These land deeds are indispensable for studying the land development, social and economic evolution, and race relationship of pre-1900 Taiwan.

THDL is built with the goal of providing a digital research platform for researchers to conduct research using the materials in the database.   For this purpose we developed a retrieval methodology that regards a query result as a sub-collection, and built tools for automatic term extraction, term frequency and co-occurrence analysis, post-query processing and presentation of the sub-collection.

One challenge concerning the effective use of the land deeds is to discover relationships among such a large quantity of land deeds.   For example, a piece of land might be sold from A to B, then from the son of B to C.   Or the land might be divided among the sons of the owner, then each inheritor may conduct further transactions on the inherited land.   The activities on a piece of land may span over several decades, and the deeds kept at different places.   In this talk we describe a method that automatically discovers relationships among land deeds.   Using our method, we discovered over 2,000 such relationships, one of which even involves over 100 deeds.   Our results should open new doors to land deed research that had never been done before.

References

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