Study on the Characteristics of Chinese Urban Network Space from the Perspective of Innovative Collaboration

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Abstract : With the development of knowledge economy era, deepening the mechanism of cooperation and adhering to sharing and win-win cooperation has become new direction of urban development nowadays. In recent years, innovative collaborations between cities are becoming more and more frequent, whose influence on urban network space has aroused many scholars' attention. Taking 46 cities in China as the research object, the paper builds the connectivity of innovative network between cities and the linkages of urban external innovation using patent cooperation data among cities, and explores urban network space in China by the application of GIS, which is a beneficial exploration to the study of social network space in China in the era of information network. The result shows that the urban innovative network space and geographical entity space exist differences, and the linkages of external innovation are not entirely related to the city innovative capacity and the level of economy development. However, urban innovative network space and geographical entity space are similar in hierarchical clustering. They have both formed Beijing-Tianjin-Hebei, Yangtze River Delta, Pearl River Delta three metropolitan areas and Beijing-Shenzhen-Shanghai-Hangzhou four core cities, which lead the development of innovative network space in China.

Keywords: innovative collaboration, urban network space, the connectivity of innovative network, the linkages of external

innovation

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