

Mapping Web Pages by Internet Protocol (IP) addresses: Analyzing Spatial and Temporal Characteristics of Web Search Engine Results

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Abstract. Internet Protocol (IP) addresses are frequently used as a method of locating web users by researchers in several different fields. However, there are competing reports concerning the accuracy of those locations, and little research has been done in manually comparing the IP geolocation databases and web page geographic information. This paper categorized web page from the Yahoo search engine into twelve categories, ranging from “Blog” and “News” to “Education” and “Governmental”. Then we manually compared the mailing or street address of the web page’s content creator with the geolocation results by the given IP address. We introduced a cartographic design method by creating kernel density maps for visualizing the information landscape of web pages associated with specific keywords.

Keywords. Web Search Engines, Cyberspace, Information Landscape, Geolocation, IP address