Theme-Related Keyword Extraction from Free Text Descriptions of Image Contents for Tagging

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Abstract— This paper discusses a method for automatic theme-related keyword extraction from users' natural language comments on their photographs and videos. 'Theme' indicates the concepts circumscribing and describing the content of the photos and videos such as pets, natural sites, palaces and places. The method employs a deep learning algorithm, RNN(Recurrent Neural Network) that is good at recognizing implicit patterns of sequential data. The method has been applied to the construction of a place-related image content DB, and delivers reasonably good performance even in case the measure (i.e. themes of image contents) is abstract and vague.

Keyword— Content Search, Image Content DB, Keyword Tagging, Recurrent Neural Network (RNN), Tag Extraction

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