

Photo mining

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Take nothing but memories, leave nothing but footprints...that well-worn traveller's mantra might be modernised to say "take nothing but photos." Indeed, modern travellers take and share billions of photos every year thanks to the advent of smartphones, digital cameras, and social media. The digital footprints they leave offer a hidden treasure of geotagged information about popular and not-so-popular tourist destinations.

Now, Zhenxing Xu, Ling Chen, Haodong Guo, Mingqi Lv, and Gencai Chen of the College of Computer Science, at Zhejiang University, in Hangzhou, China, have investigated how data-mining online photo

collections and their geotags might be used to develop recommendations for other travellers. Until now, most data mining of tourist photographs has focused on time and location and ignored the context of the images. Xu and colleagues have added another layer to a recommendation algorithm

"[Our system] uses an entropy-based mobility measure to classify geotagged photos into tourist photos or non-tourist photos," they explain. "Secondly, it conducts gender recognition based on face detection from tourist photos," they add. "Thirdly, it builds a gender-aware profile of travel locations and users and finally, it recommends personalised travel locations considering both user gender and similarity."

The team has tested the approach with a dataset of geotagged photos from eleven popular [tourist](#) destinations across China. "Experimental results show that our approach has the potential to improve the performance of travel [location](#) recommendation," they conclude.

More information: Zhenxing Xu et al. User similarity-based gender-aware travel location recommendation by mining geotagged photos, *International Journal of Embedded Systems* (2018). [DOI: 10.1504/IJES.2018.095023](#)

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