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Application of Machine Learning Models to Predict Couchsurfers on Free Homestay Platform Couchsurfing

Authors : Yuanxiang Miao

Abstract : Couchsurfing is a free homestay and social networking service accessible via the website and mobile app. Couchsurfers can directly request free accommodations from others and receive offers from each other. However, it is typically difficult for people to make a decision that accepts or declines a request when they receive it from Couchsurfers because they do not know each other at all. People are expected to meet up with some Couchsurfers who are kind, generous, and interesting while it is unavoidable to meet up with someone unfriendly. This paper utilized classification algorithms of Machine Learning to help people to find out the Good Couchsurfers and Not Good Couchsurfers on the Couchsurfing website. By knowing the prior experience, like Couchsurfer's profiles, the latest references, and other factors, it became possible to recognize what kind of the Couchsurfers, and furthermore, it helps people to make a decision that whether to host the Couchsurfers or not. The value of this research lies in a case study in Kyoto, Japan in where the author has hosted 54 Couchsurfers, and the author collected relevant data from the 54 Couchsurfers, finally build a model based on classification algorithms for people to predict Couchsurfers. Lastly, the author offered some feasible suggestions for future research.

Keywords : Couchsurfing, Couchsurfers prediction, classification algorithm, hospitality tourism platform, hospitality sciences, machine learning
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