Automated prediction of demographic information from medical user reviews

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Abstract

© 2017, Springer International Publishing AG.The advent of personalized medicine and wide-scale drug tests has led to the development of methods intended to automatically mine and extract information regarding drug reactions from user reviews. For medical purposes, it is often important to know demographic information on the authors of these reviews; however, existing studies usually either presuppose that this information is available or disregard the issue. We study automatic mining of demographic information from user-generated texts, comparing modern natural language processing techniques, including extensions of topic models and deep neural networks, for this problem on datasets mined from health-related web sites.

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