## Finding novel applications for big data from social media

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We use data from the social networking site Twitter to study how users respond to events occurring on various time scales, from the microscale of television programs and sporting events to the macroscale of weather and climatic events. By using a simple metric based on word use we attempt to quantify the effect of these external events upon the sentiment expressed in users' tweets, and identify patterns in the data characteristic of different locations or temperatures. We discuss how this new source of data could possibly be used for novel applications such as assimilation into weather or climate models.