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Characterizing the Performance and Behaviors of Runners Using Twitter

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Et al.

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Title:

Characterizing the Performance and Behaviors of Runners Using Twitter

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Abstract:

Running is a popular physical activity that improves physical and mental wellbeing. Unfortunately, up-to-date information about runners' performance and psychological wellbeing is limited. Many questions remain unanswered, such as how far and how fast runners typically run, their preferred running times and frequencies, how long new runners persist before dropping out, and what factors cause runners to quit. Without hard data, establishing patterns of runner behavior and mitigating the challenges they face are difficult. Collecting data manually from large numbers of runners for research studies is costly and time consuming. Emerging Social Networking Services (SNS) and fitness tracking devices make tracking and sharing personal physical activity information easier than before. By monitoring the tweets of a runner group on Twitter (SNS) over a 3-month period, we collected 929,825 messages (tweets), in which runners used Nike+ fitness trackers while running. We found that (1) fitness trackers were most popular in North America (2) one third of runners dropped out after one run (3) Over 95% of runners ran for at least 10 minutes per session (4) less than 2% of runners consistently ran for at least 150 minutes a week, which is the level of physical activity recommended by the CDC (5) 5K was the most popular distance.