On the Ground Validation of Online Diagnosis with Twitter and Medical Records

Todd Bodnar*
Pennsylvania State University
Department of Biology
University Park, PA 16802
tjb5215@psu.edu

Maybe Conrad, Maybe Vicky

Marcel Salathé
Pennsylvania State University
Department of Biology
University Park, PA 16802
salathe@psu.edu

ABSTRACT

This is an abstract

Categories and Subject Descriptors

I.2.1 [Artificial Intelligence]: Applications and Expert Systems—Medicine and Science

General Terms

Experimentation, Validation

Keywords

Twitter, Validation, Digital Epidemiology, Remote Diagnosis

- 1. INTRODUCTION
- 2. RELATED WORK
- 3. DATA COLLECTION
- 3.1 Medical Records
- 3.2 Twitter Records
- 4. SIGNAL DETECTION
- 4.1 Event Based Signals
- 4.2 Frequency Based Signals
- 4.3 Network Based Signals
- 5. ANALYSIS
- 6. CONCLUSIONS
- 7. REFERENCES
- L. R. Ford and D. R. Fulkerson. Maximal Flow through a Network. Canadian Journal of Mathematics, 8(3):399-404, 1956.

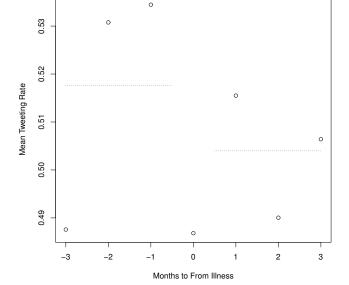


Figure 1: The frequency of tweeting behaviour of individuals in the months before, during and after an illness. Users significantly (check) decrease their rate of tweeting during the time that they had influenza. Dashed lines indicate the mean rate for the three months before / after the illness. (Todo: check significance)

^{*}Corresponding author