The First Workshop on Digital Disease Detection using Social Media 2017 (DDDSM-2017)

Historically the disease outbreaks such as Ebola and Zika outbreaks were detected based on trends observed in the official reports collected at various geographic levels as part of the pre-established surveillance programs. The major drawback of this approach is producing outbreak alerts in timely fashion. Advances in technology and rapid adoption of information sharing platforms such as social media platforms provide new data sources and unique opportunities for researchers to study disease outbreaks. Digital disease detection involves monitoring various digital information sources for early warning, detection, rapid response, and management phases. Unlike manual systems, which relies on traditional disease surveillance program reports to monitor and predict early outbreaks, the current automated digital disease surveillance systems exploit mainly publicly available information on internet such as news, social media and search engines.

The alerts produced using traditional surveillance programs are less prone to false alerts when compared to digital disease detection systems. However, with the latest advances in natural language processing methods; we believe it is possible to detect early outbreak signals. In light of this, the objective of this workshop emphasizes the application of the latest advances in advanced data mining algorithmic methods such as deep learning and online learning approach on social media data to detect early signals for an outbreak detection. In addition, the goals of the proposed workshop are i) to disseminate the scientific knowledge in the area of outbreak detection using social media data; ii) make the NLP community aware of the disease outbreak detection aspects and iii) exchange ideas, challenges and experiences in using social media data such as twittter for biosurvelliance purposes.

This workshop is motivated by recent increase in hackathons organized across the globe with similar objectives and goals as this workshop. A few such hackathons include IMED 2016 Hackathon and 2016 Zika Innovation Hack-a-thon in USA and 2016 ZikaHack in Australia. We participated in one of those hackathons and anticipate few papers submissions related to those hackathons to this first proposed DDDSM2017 workshop.

Topics of interest include, but are not limited to, the following:
- Social Network Analysis;
- Biomedical text mining;
- Sentiment Analysis;
- Social media monitoring;
- Digital disease surveillance;
- Digital disease detection
- Biosurveillance

Important Dates
- Paper Submission Deadline: September 15, 2017
- Notification of Acceptance: September 25, 2017
- Camera-Ready Deadline: September 30, 2017
- DDDSM-2017 Workshop: November 27, 2017
  ** All deadlines are calculated at 11:59pm UTC-7

Submission Information
Paper submission to DDDSM is via Softconf START conference management system at https://www.softconf.com/ijcnlp2017/dddsm2017/. All submitted papers must follow the two-column format of IJCNLP 2017 proceedings without exceeding eight (8) pages, including figures, tables and references. Submissions must conform to the official style guidelines, which are contained in the style files, and they

must be in PDF. Authors should submit their manuscripts online. Electronic submission substantially reduces the editorial processing and reviewing times and shortens overall publication times.

Special Issue
Authors of selected papers will be invited to submit extended versions of their papers to a journal special issue.

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