

1156-92-226

**Mauricio Santillana\*** ([msantill@g.harvard.edu](mailto:msantill@g.harvard.edu)). *Data driven machine learning approaches to monitor and predict events in healthcare. From population-level disease outbreaks to patient-level monitoring.*

I will describe data-driven machine learning methodologies that leverage Internet-based information from search engines, twitter microblogs, crowd-sourced disease surveillance systems, electronic medical records, and weather information to successfully monitor and forecast disease outbreaks in multiple locations around the globe in near real-time. I will also present data-driven machine learning methodologies that leverage continuous-in-time information coming from bedside monitors in Intensive Care Units (ICU) to help improve patients' health outcomes and reduce hospital costs. (Received January 24, 2020)