HST.936
SPRING 2018

GLOBAL HEALTH
INFORMATICS
to improve QUALITY of CARE

Leveraging Big Data in Global Health

Disease has no respect for country borders. Increased global travel has fueled the spread of infectious disease, as evidenced by the **Ebola** and **Zika** virus epidemics. Chronic diseases such as **diabetes** and **heart disease**, initially confined to the developed world, now exist side-by-side with malnutrition in low and middle-income countries (LMICs). **Global warming** is widening the endemicity of **zoonotic diseases**.

One driving force that sweeps across nations even faster than disease is **technology**. The spread of mobile phones that bring computational power and data to our fingertips has led to new paradigms in tracking and battling disease. This course explores and designs ways to leverage technology to combat disease and promote health, especially in resource-constrained settings.

This year, our course explores **digital disease surveillance** through the lens of non-traditional data sources. Developing countries are uniquely prone to large-scale emerging infectious disease outbreaks due to disruption of **ecosystems**, **civil unrest**, and poor healthcare **infrastructure** – and without comprehensive surveillance, delays in outbreak identification, resource deployment, and case management can be catastrophic. In combination with context-informed **analytics**, students will learn how non-traditional **digital disease data sources** – including news media, social media, Google Trends, and Google Street View – can fill critical knowledge gaps and help inform on-the-ground decision-making when formal surveillance systems are insufficient.

For this **project-based curriculum**, each student will be involved in an ongoing health informatics project with **global partners**, such as HealthMap, Medair, Brigham and Women's Hospital, UNFPA, and others.

Pre-register online at: http://sana.mit.edu/hst936

Classes start February 9, 2018
Open to all levels, with instructor approval.
Email: hst936faculty@mit.edu

FRIDAYS
9:00 am - 11 am

Room **E25-117**
45 Carleton St, Cambridge, MA
http://whereis.mit.edu/go/E25