

Medical Benefits and Negative Effects of Big Data in Health Industries

► APPLICATIONS in Health Industries



- ❖ **Correlation doesn't mean causation** Recent divergence in 2012–2013 for U.S.

Failure of **Google Flu Trend** (GFT)

Predicted flu trend using GFT vs. actual value calculated by CDC (Center for Disease Control and Prevention)
- ❖ **Privacy Issue**

Anonymization: Failed to protect people's personal information

Companies are being dishonest and opaque in their data sharing process. For Commercial Apps:

 - **40%** do not have a privacy policy;
 - **30%** violated the policy by sharing information with undisclosed third party;
 - Only **10%** encrypted all of the health information during transmission.

Offensive interventions can create harm to the patient-provider relationships.
- ❖ **Discrimination**

For Individual

Example: Film *Gattaca*

For certain groups or communities

Research results are being used by insurance companies to create different treatments for different groups of people according to age, gender, driving habits, etc.

Citation