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Nota di contenuto	Part 1: Big Data and Global Health Landscape -- Chapter 1. Strengths and Weaknesses of Big Data for Global Health Surveillance -- Chapter 2. Opportunities for Health Big Data in Africa -- Chapter 3. HealthMap and Digital Disease Surveillance -- Chapter 4. Mobility Data and Genomics for Disease Surveillance -- Part 2: Case Studies -- Chapter 5. Kumbh Mela Disease Surveillance -- Chapter 6. Using Google Mobility Data for Disaster Monitoring in Puerto Rico -- Chapter 7. StreetRx and the Opioid Epidemic -- Chapter 8. Twitter Data for Zika Virus Surveillance in Venezuela -- Chapter 9. Hepatitis E Outbreak in Namibia and Google Trends -- Chapter 10. Patient-Controlled Health Records for Non-Communicable Diseases in Humanitarian Settings -- Chapter 11. Addressing Sexual and Reproductive Health among Youth Migrants -- Chapter 12. Tanzanian cholera: epidemic or endemic? -- Chapter 13. Google Satellite Images to Predict Yellow Fever Incidence in Brazil -- Chapter 14. Feature Selection and Prediction of Treatment Failure in Tuberculosis -- Chapter 15. Tuberculosis, Refugees, and the Politics of Journalistic Objectivity: A qualitative review using HealthMap data -- Chapter 16. Designing Tools to Support the Cutaneous Leishmaniasis

	Trial in Colombia.
Sommario/riassunto	This open access book explores ways to leverage information technology and machine learning to combat disease and promote health, especially in resource-constrained settings. It focuses on digital disease surveillance through the application of machine learning to 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.