

## Anna Young

CEO of MakerHealth, TEDMED Speaker, & MIT Lecturer

### **User Innovation in Medical Device Design**

Hear stories and case studies of how **patients** and **clinicians** are **designing**, **making** and **sharing** medical devices that transform product development cycles and distribution models.

- Respiratory circuits for COVID-19 patients
- COVID-19 infection control devices for patient transport from helicopters to hospitals
- CGM Systems for Diabetic Patients at Home
- DIY Smart Medical Devices

### **The Factory at the Bedside**

Gain insights into the future of medical device manufacturing with novel fabrication and invention environments installed at the point-of-care, giving clinicians access to 3D printers, laser cutters and sensors on demand to make customized health technology. Learn how these hospital makerspaces are transforming the patient experience by enabling prescriptions for prototypes and just-in-time design and fabrication of medical devices for patient care.

- Surgeons learning to 3D print patient data
- Doctors writing prescriptions for prototypes for adaptive devices for patients
- Nurses learning to laser cut wound care materials for on-demand manufacturing

### **The Invisible Researcher**

Stealth innovators in science and healthcare are reinventing how technology is developed and implemented around the world. They pursue novel discoveries without the traditional barriers of professional researchers and an accelerated pathway to implementation with immediate feedback loops.

- Frontline nurses and paramedics creating wound-care materials to rapidly cure infant abdominal wall defects and tremendously reduce cost of care while improving outcomes
- How did a community of citizen scientists use an expired space craft to discover another world that professional astronomers overlooked
- Using solar thermal energy and low-cost pressure cookers, a network of rural Nicaraguan clinics developed solar powered autoclaves for instrument sterilization