



IoT Week Geneva
6-9 June, 2017

Workshop

IoT in Medical Sciences and Healthcare



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Foundation of IoT



Connections
Ubiquitous
Knowledge
Global

THINGS

NETWORK

DATA

PEOPLE

Focal Areas of IoT-Healthcare



Improve health of the mass

Lowered cost of healthcare

Improved patient experience

Best use of resources

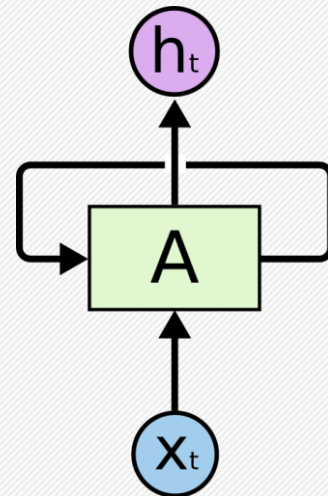
- Health records management
- Monitoring of physiological conditions
- Ambient assisted living
- Personalized treatment
- Remote Care



Predictive Analytics in Healthcare



Predictive analytics uses technology and statistical methods to search through massive amounts of information, analyzing it to predict outcomes for individual patients.



Higher accuracy of diagnoses



- Assistive aid to clinical decisions (Decision Support Systems)
- Determine likelihood for a treatment plan
- New patterns in medical data and deeper insights into patients' health



Preventive medicine and public health



- Predict risks of diseases based on previous data
- Especially helpful for chronic diseases
- Helps in preventive treatment

Science Home News Journals Topics Careers

SHARE Artificial intelligence may help prevent heart failure.

 16K

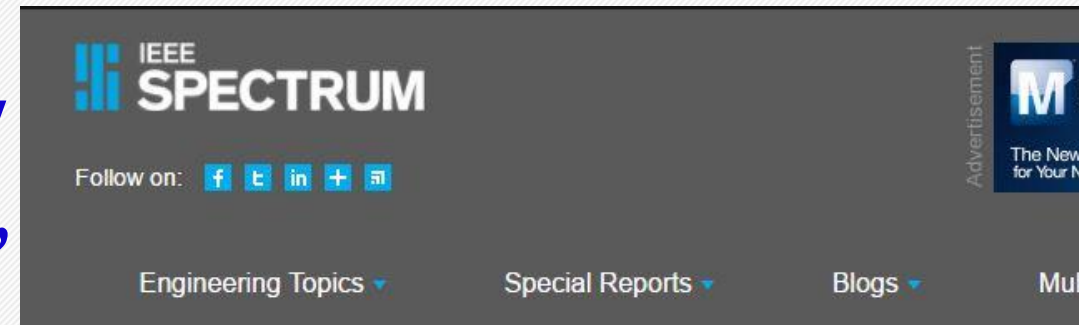
 Self-taught artificial intelligence beats doctors at predicting heart attacks

By **Matthew Hutson** | Apr. 14, 2017, 3:30 PM

Emergency and intensive care



- Ascertain risks of emergency
- Robust treatment plan for emergency
- Automate administration (respiratory, fluid etc.)



The Human OS | Biomedical | Diagnostics

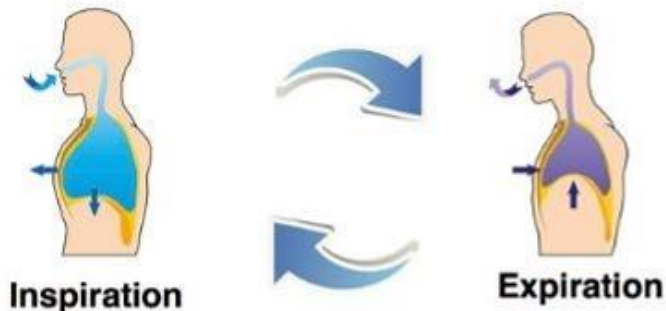
In Hospital ICUs, AI Could Predict Which Patients Are Likely to Die

By [Eliza Strickland](#)

Posted 7 Mar 2017 | 18:00 GMT



Respiratory Management



PATIENT-VENTILATOR ASYNCHRONY

- 35% experience asynchrony
- Asynchrony is associated with
 - 5x increase in ICU mortality
 - 3x increase in mechanical ventilation time
 - 2x increase in hospital length of stay
- Detection is tedious, imprecise, time-consuming

The “*GREY*” side



“In 2016, users will trust health apps more than their doctors” – Forbes

A screenshot of The Guardian's website. The top navigation bar is dark blue with the 'theguardian' logo in white. Below it, a horizontal menu lists various sections: UK, world, sport, football, opinion, culture, business, lifestyle, fashion, environment, tech, and travel. A 'home' icon is on the left, and a 'all sections' button is on the right. Below the navigation bar, a breadcrumb trail shows 'home > science'. The main headline is 'Health apps could be doing more harm than good, warn scientists' in a large, dark font. To the left of the headline is a 'Science' tag. Below the headline, a sub-headline reads: 'App development likened to the 'wild west' as researchers raise concerns over one-size-fits-all targets and absence of sound science'.

Our Speakers



Prof. Emmanuel Benoist

Speaker

Bern University of Applied
Sciences
Professor for Computer Science



Jan Sliwa

Speaker

Bern University of Applied
Sciences
Researcher



Jean François Ciparisse

Speaker

University of Rome Tor Vergata
Ph.D. student in Industrial
Engineering



Sergio Guillen Barrionuevo

Speaker

MYSPPHERA
Chief Innovation Officer

Thank You




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