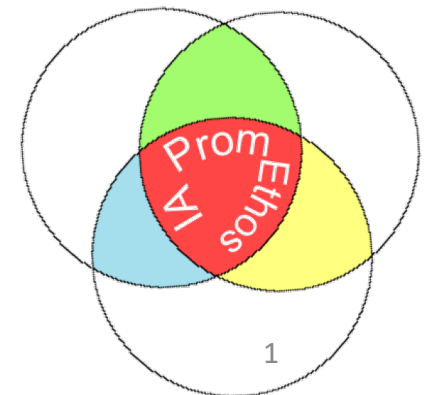




How technology can transform healthcare in Africa

Alexandra Fieux-Castagnet - PromEthosIA



How technology can direct limited medical resources where they are the most needed

Drones to transport resources in isolated territories

Challenge: road density decline and isolation of some population

Solution:

- Drones : easy to use, can deliver medicines anywhere



zipline

NOVARTIS



Securing supplies to target patients efficiently

Challenge: chronic diseases are rising: recurrent needs for medicines is growing

Solution:

- Deliver medicines as often as needed
- Access to daily use medication
- Ease orders

pele
box

logistimo

Ensuring optimal transport and storage conditions

Challenge: some medicine require specific conditions but equipment is lacking

Solution:

- Inform of too high or too low temperatures
- Provide data to understand which stage of supply chain is at risk

Parsyl

How technology can help relieve the pressure on health care structures and staff

Take advantage of the wide penetration of the mobile phone to help patients at a distance

Challenge: massive exodus of healthcare professionals from Africa to Western Europe and North America

Solution: high mobile phone & SMS messaging penetration

- Provide information from healthcare professionals remotely
- Transmit health prevention message
- Prompt chronic patients to obtain their medications

Internet of Things for remote diagnosis and initial treatment

Challenge: health centers are scarce, poorly served by transport and overworked: several hours of waiting are necessary for a simple test

Solution:

- Smartphones can share information (audio, photo, video, movement) to help a doctor, even far away
- Easy to use medical devices can go to the patients

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How technology, with the help of data, can drive the health system upwards

Data, as R&D fuel

Challenge: Data not often shared and harmonized and so hardly used efficiently

Solution:

- Data to select projects (usefulness & cost-effectiveness)
- Data to diagnose disease
- Data to identify patterns and help in disease surveillance



ZENYSIS

Data to help cooperation

Challenge: wide variations in disease prevalence, management and health systems

Solution:

- Health data to be shared between countries
- Pooling know-how



Data, to finance projects?

Challenge: technologies are expensive and rarely profitable, financing may be tricky

Solution:

- Partnership with Big Pharma and Big Tech to be paid in data
- Debate over confidentiality and ownership: “data colonialism”
- Regulations to be built to protect population rights



Conclusion & topics to go further

- No unification of African countries' digital strategies or regulatory framework
- \$25bn to \$30bn needed to meet health care demands, a significant part must be dedicated to technology
- Essential to continue investing in doctors training and hospitals building

- How can Big Tech be encouraged to invest in health in Africa?
- Data colonialism: what are the risks, and are they the same for developing countries?
- Isn't the race for energy-intensive technology a vicious circle for Africa, the first continent to suffer from global warming?