Beyond the Horizon: Unleashing AI's Potential for Public Health

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UNICEF Office of Innovation

Measuring nutritional status, Guatemala
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UNICEF Ventures

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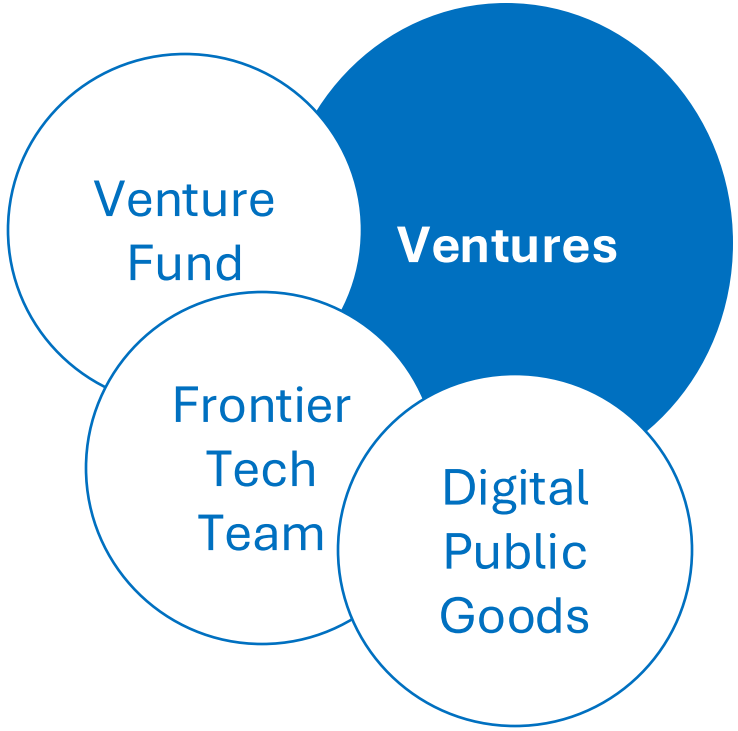
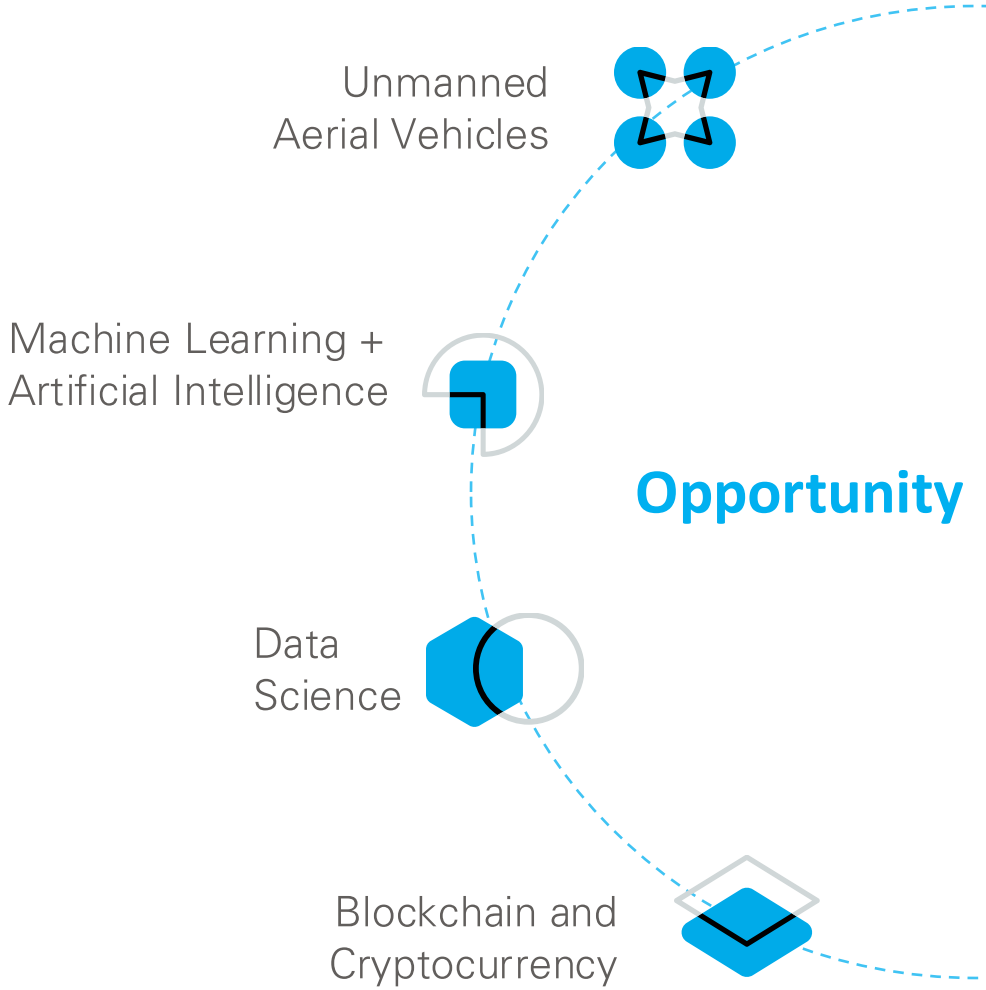


Ventures helps to apply promising open solutions in country programs and prime the most suitable for scale.



Mothers awaiting postnatal services, Uganda © UNICEF/UN0569698/Abdul

MICS Enumerators, Thailand © UNICEF/UN0733022/Kongmuang

What is AI?

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AI systems pervade many aspects of our daily lives.

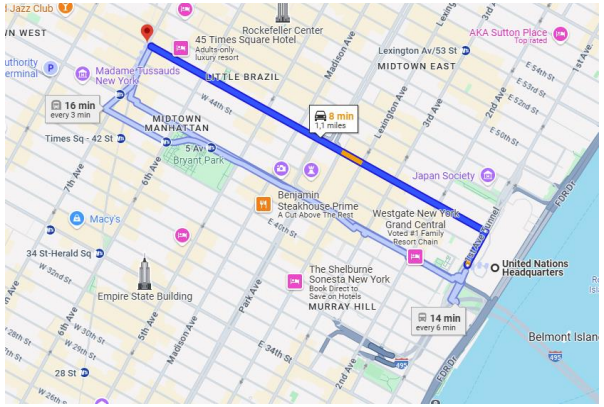
Most of us interact with AI without even realizing it.

An **AI system** is
a machine-based system that,
for explicit or implicit **objectives**,
infers, from the **input** it receives,
how to generate **outputs** ...
that can influence physical or virtual environments.

Facial and voice recognition

Recommendations

Machine translation



Maps and travel planning

Where can AI help?

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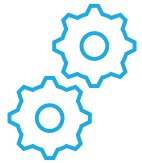
Data gaps and real-time insights

Predicting and simulating



Automating analysis and enhancing human workflows

Content conversion, personalization, and creation

The range of problems that can be addressed by AI algorithms and systems is constantly growing.

Filling in data gaps

Predicting air quality in Thailand and Laos

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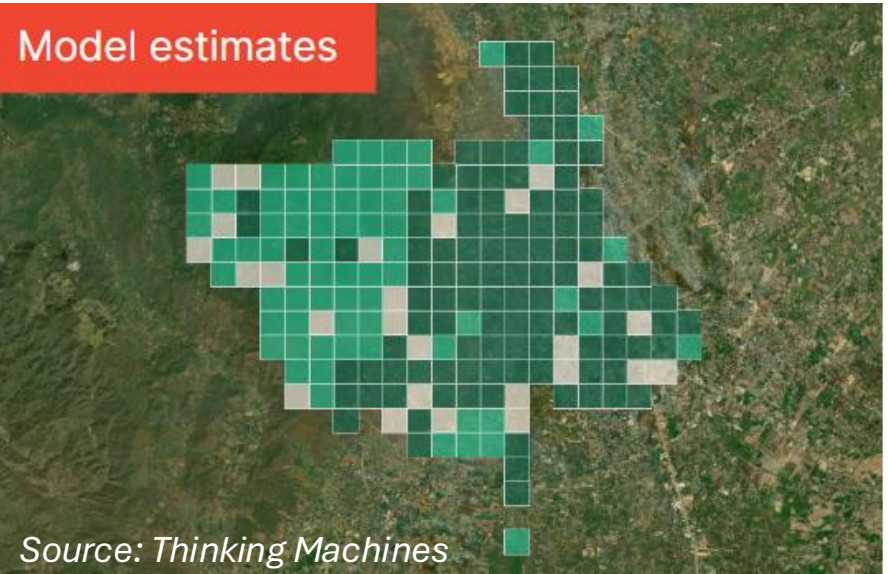

Source: Thinking Machines

Schoolchildren in Thailand © UNICEF/UNI75555/Estey

Providing real-time insight

Social media listening and radio monitoring

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1,924 hours recorded

87 hours of potentially relevant content identified with automatic filter

54 hours remaining after removing duplicate stations

16 hours of relevant conversation identified via manual review

Automating analysis at scale

Estimating school damage in Gaza

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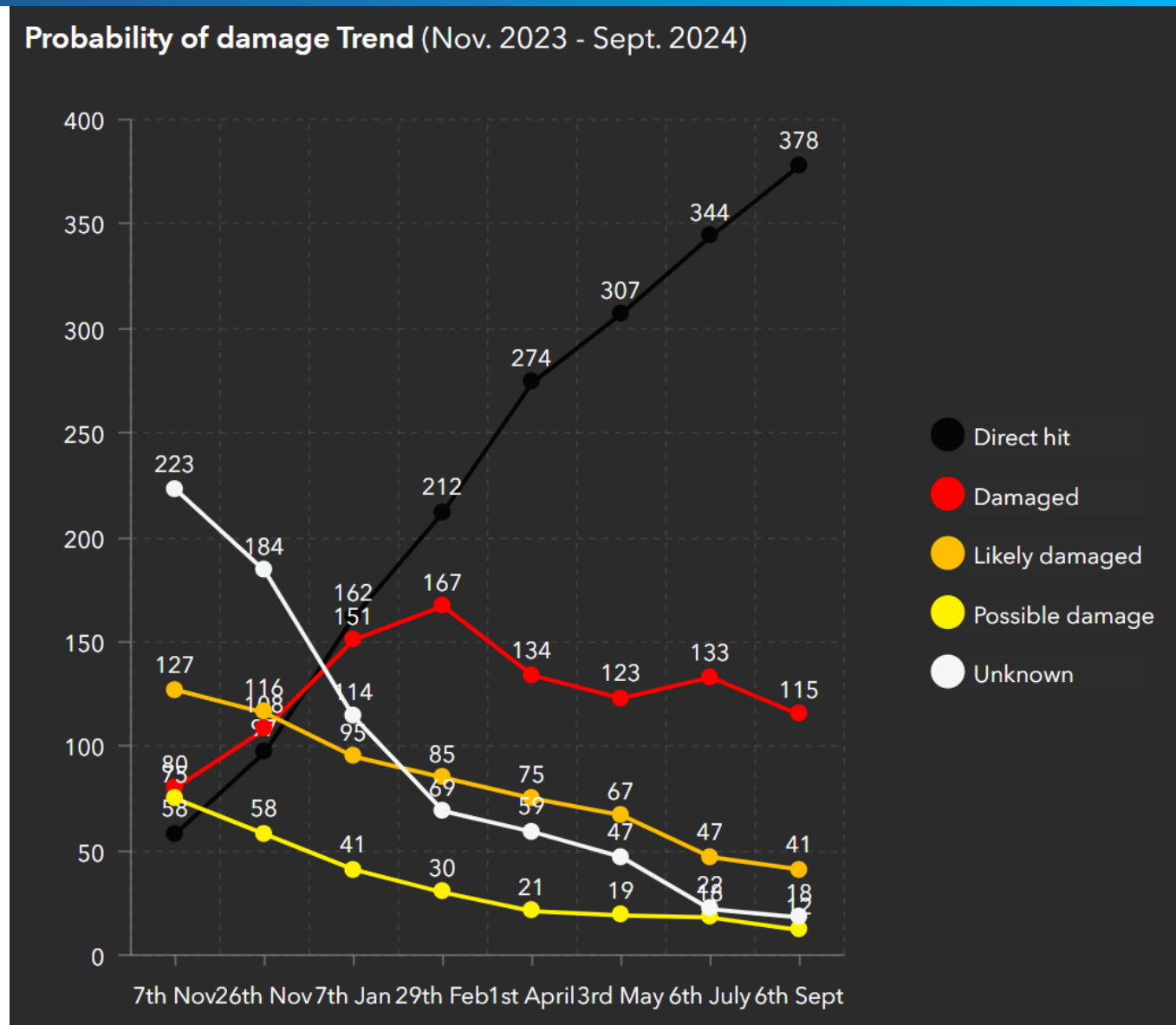

Enhancing human workflows

AI-powered diagnostics and decision support

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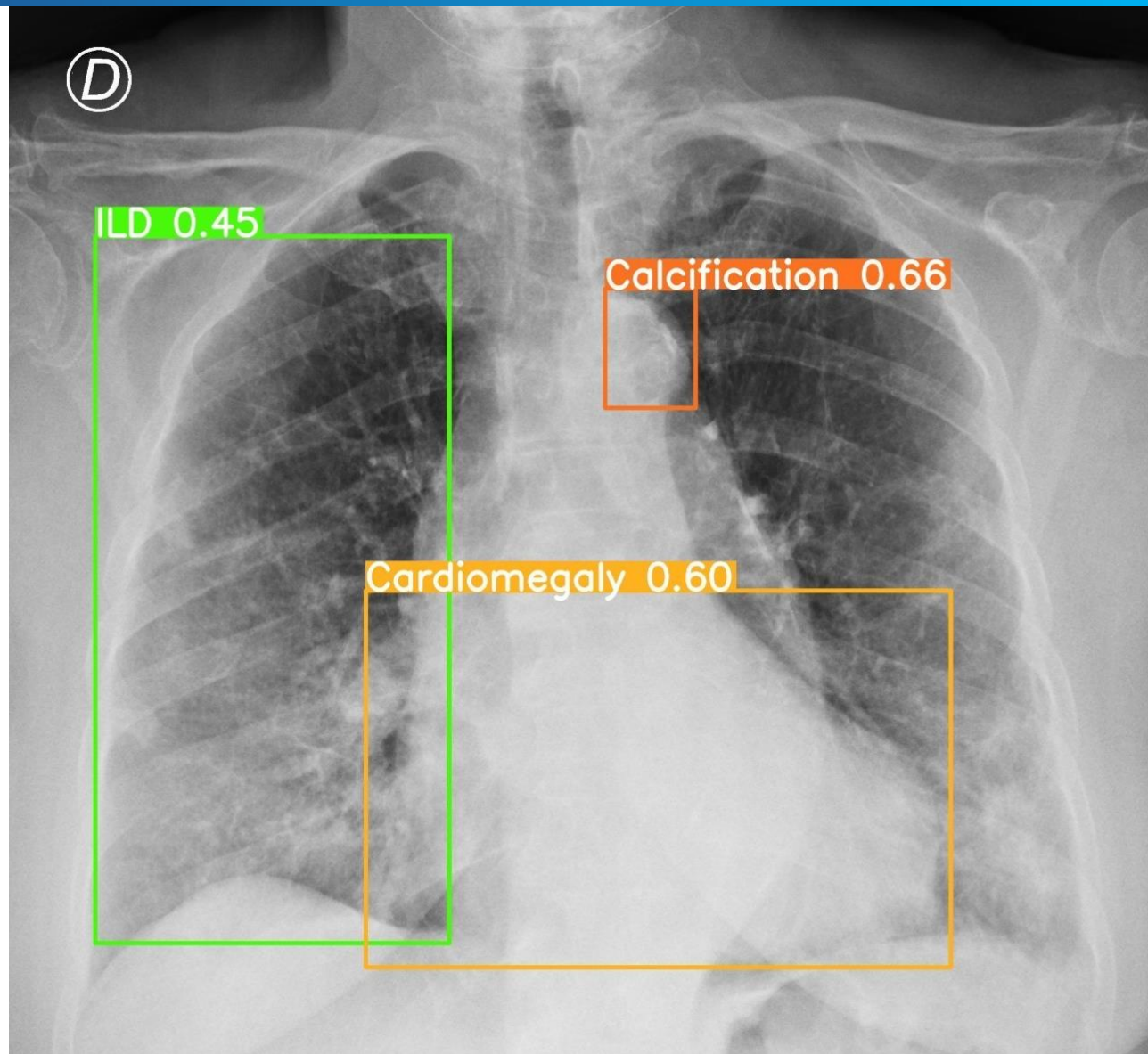
Malnutrition screening, Sudan
© UNICEF/UNI611222/Rajab



Predicting the future

Forecasting dengue outbreaks in Brazil and Peru

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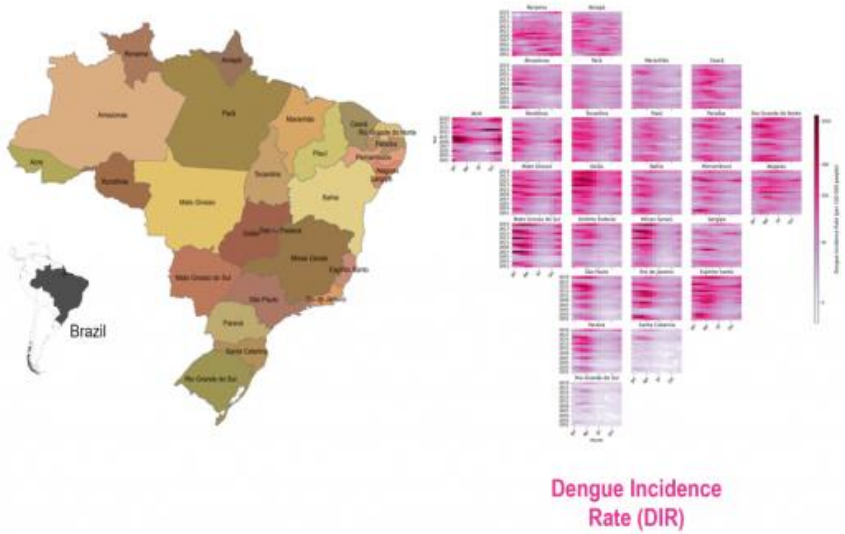

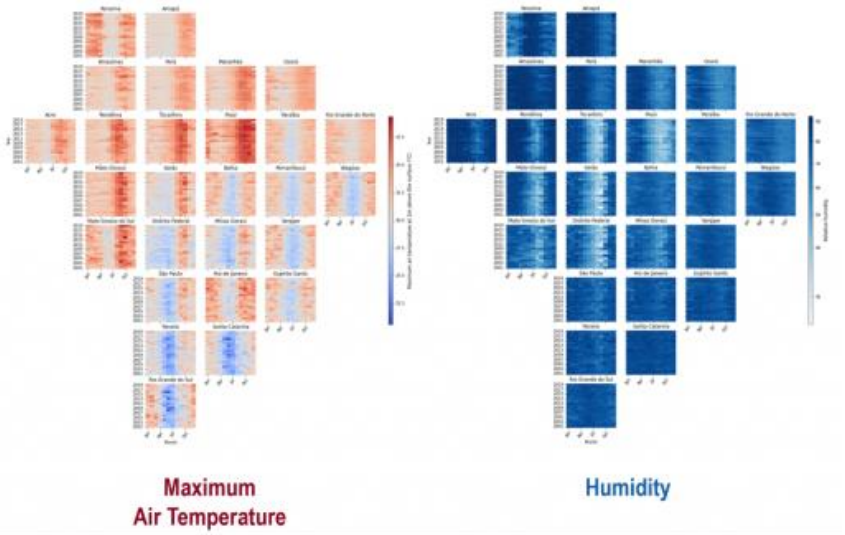

Simulating possible scenarios

Exploring the impact of COVID mitigation measures in Cox's Bazar, Bangladesh

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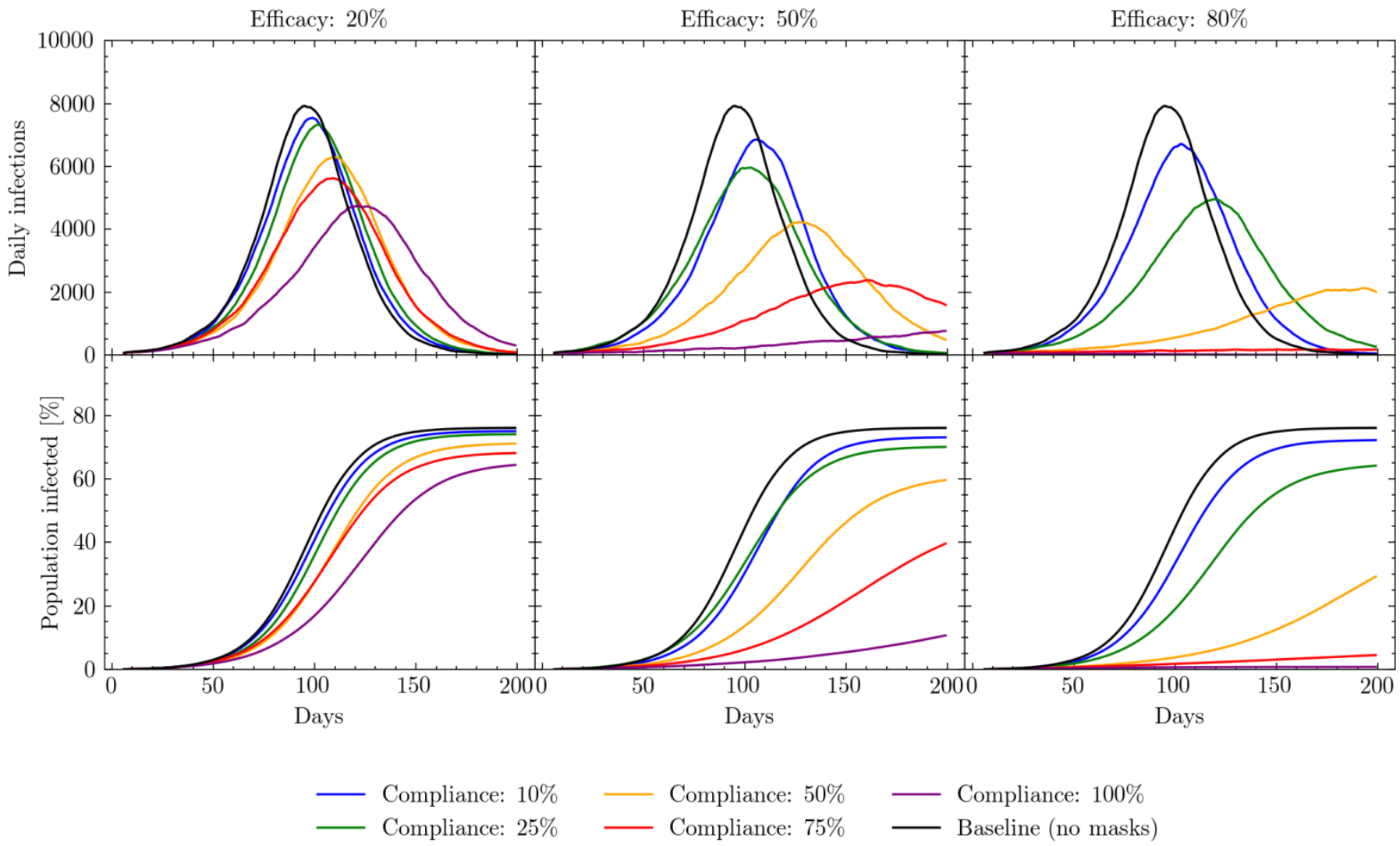

Cox's Bazar

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Converting content to new formats

Promoting inclusivity with speech synthesis and machine translation

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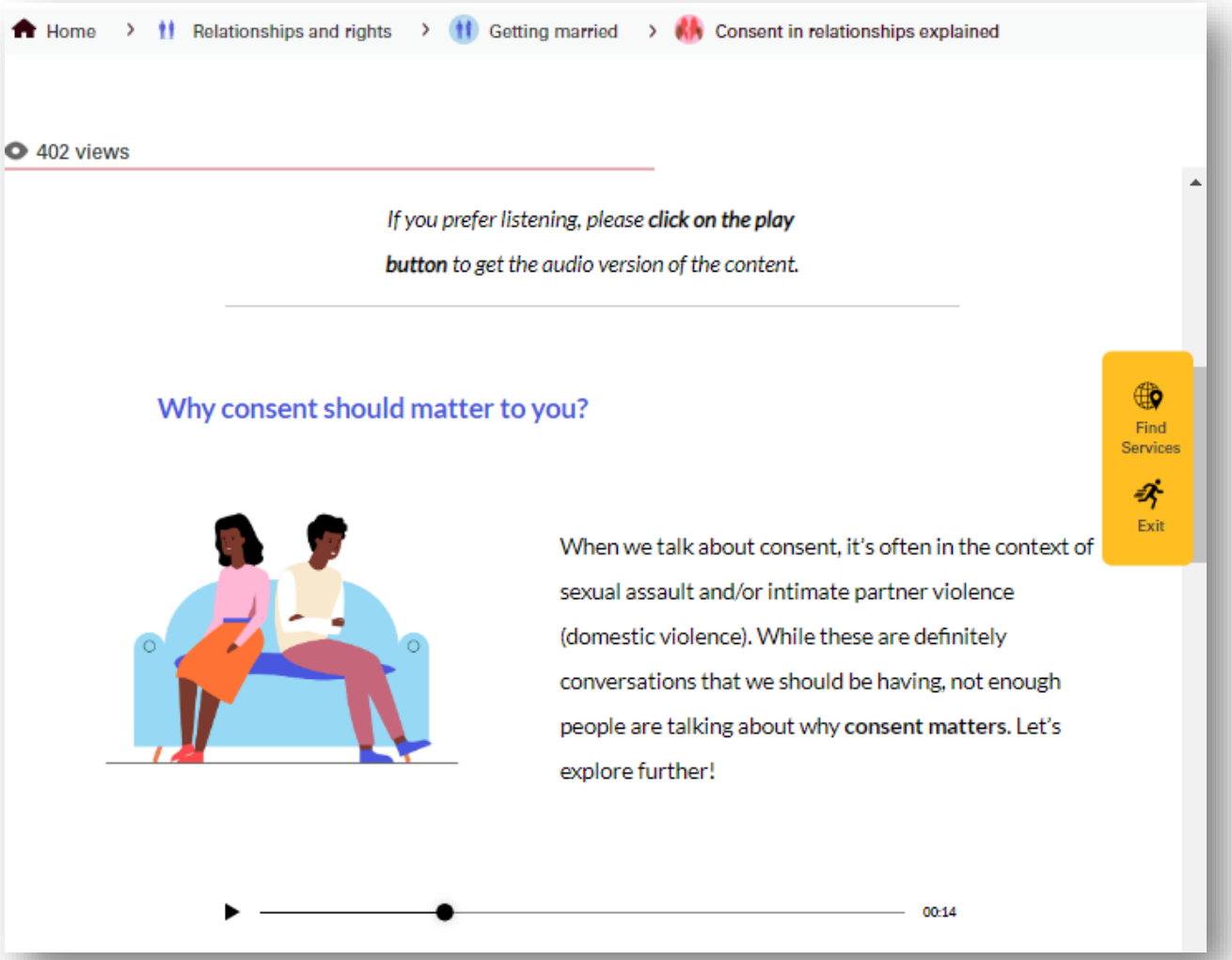

Laaha

A virtual safe space for women and girls

Personalization and content generation

Empowering and enhancing user interactions with large language models

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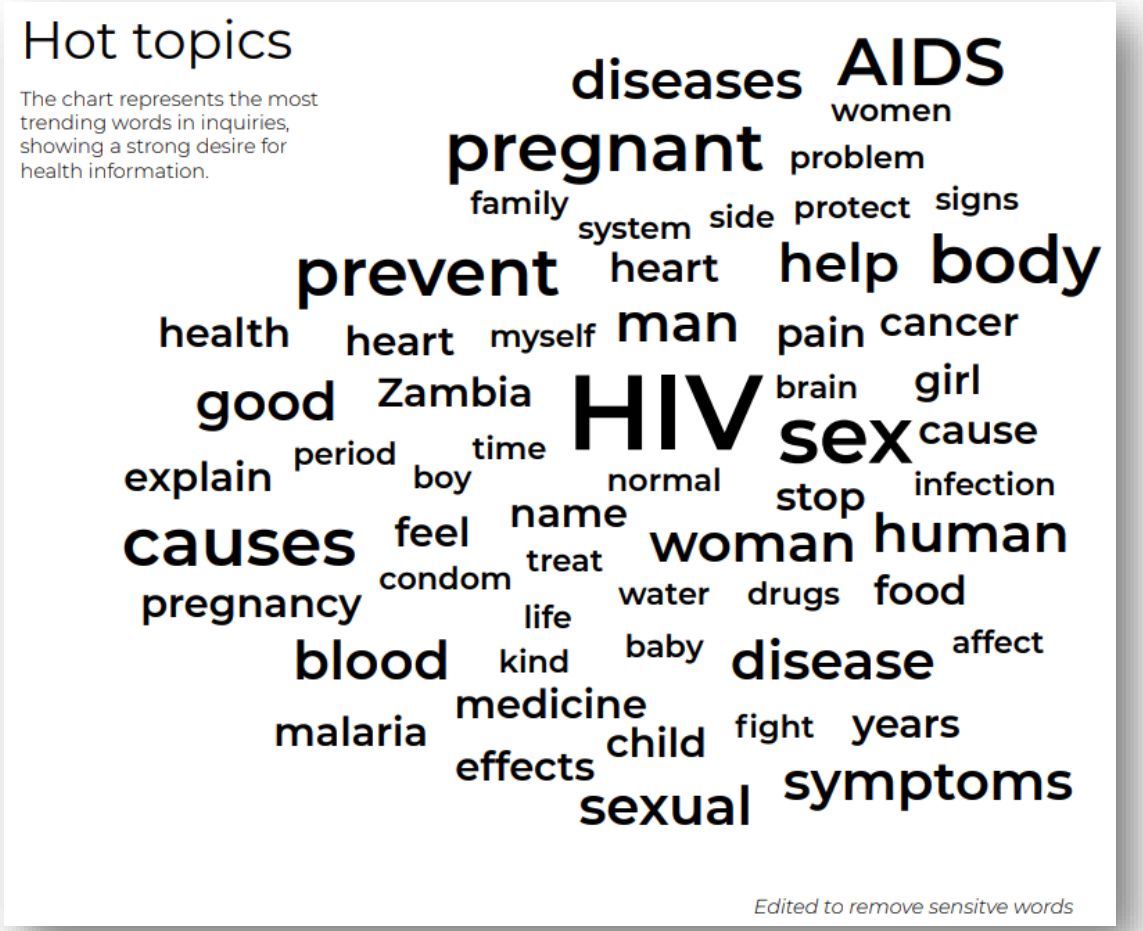
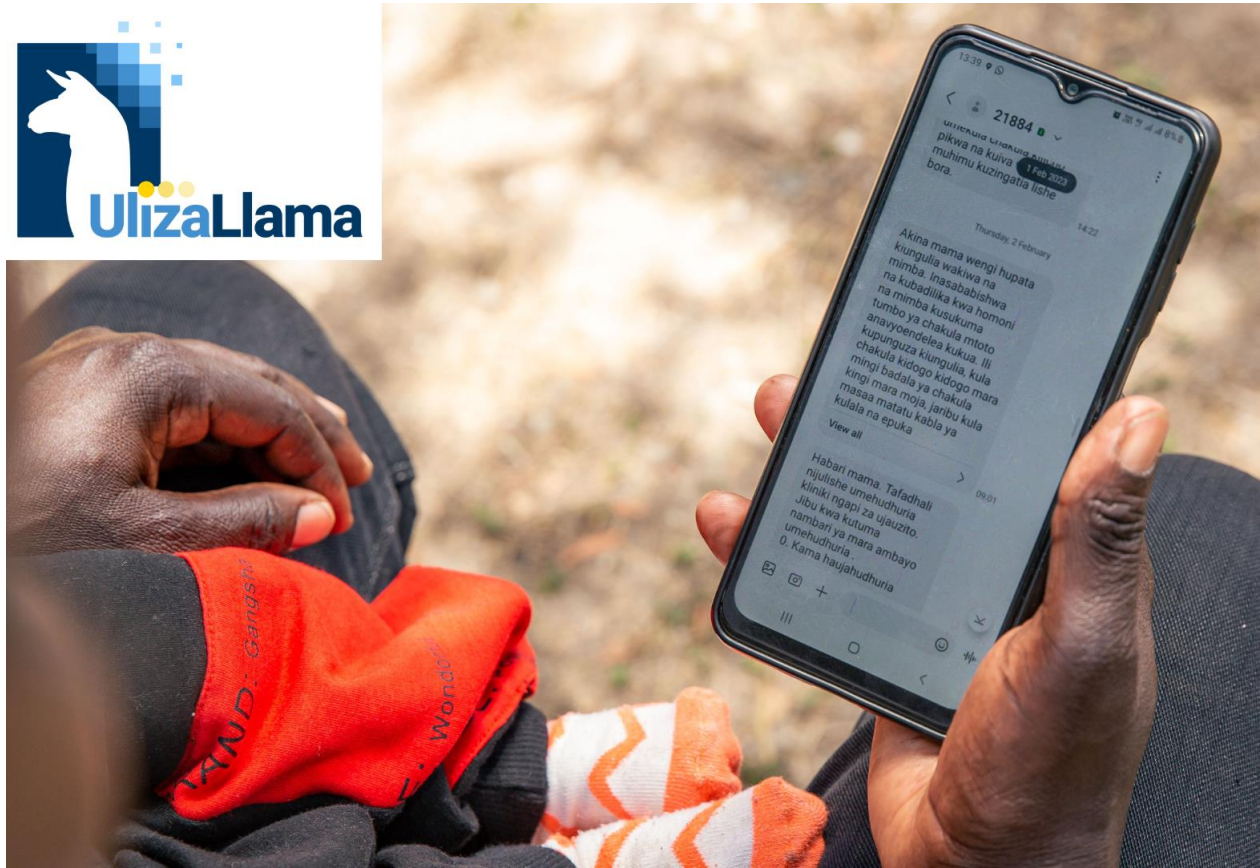


JACARANDA HEALTH

UlizaLlama



viamo
improving lives via mobile

Understanding the context

Need to consider the environment in which models are used

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Receiving health-related SMS messages, Uganda
© UNICEF/UNI232737/Kabuye

Understanding the limitations

Need to consider model capabilities and training data

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And the World Health Organization, since the recent monkey pokes outbreak needs a more global coordinated air foot.

kara state government has warned health officials against issuing **covid 19 vaccination cards** to people who refuse to be **vaccinated** but wish to acquire the cards . . .

while as did comment as 1 held officials against it in **covington location chart** to people who refuse to be **buttoned** but which to a cloud the carts . . .

How to engage effectively with AI

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- Identify the best partner for solution delivery – buy, borrow, or build
- Support in-country ecosystems of AI developers, testers, and implementers
- Build AI solutions that are accessible and localized
- Design for the digital divide and gender equality
- Address bias, safety, discrimination, and representation

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Ministry for Foreign Affairs of Finland

Innovation is not easy

It takes time, investment, and iteration to see returns

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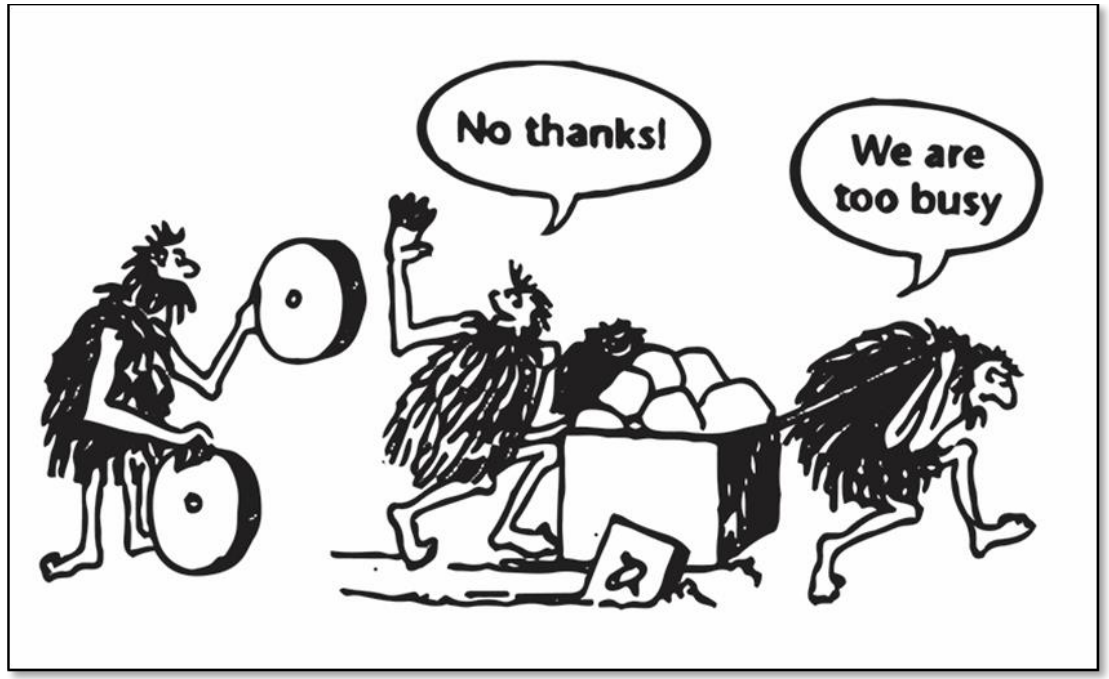
AI is a useful and promising tool

AI won't solve all your problems

You will invest a lot of time making AI systems work for you



Questions?

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Measuring weight as part of a nutritional needs assessment, Malaysia © UNICEF/UNI608863/Sufari