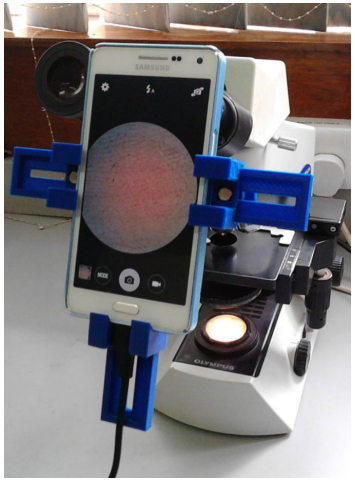
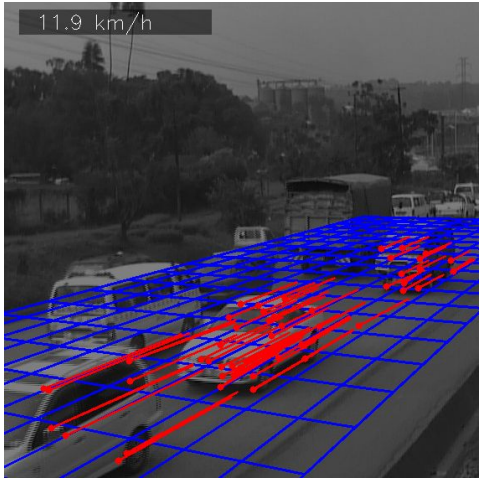
MLPR and Global Challenges

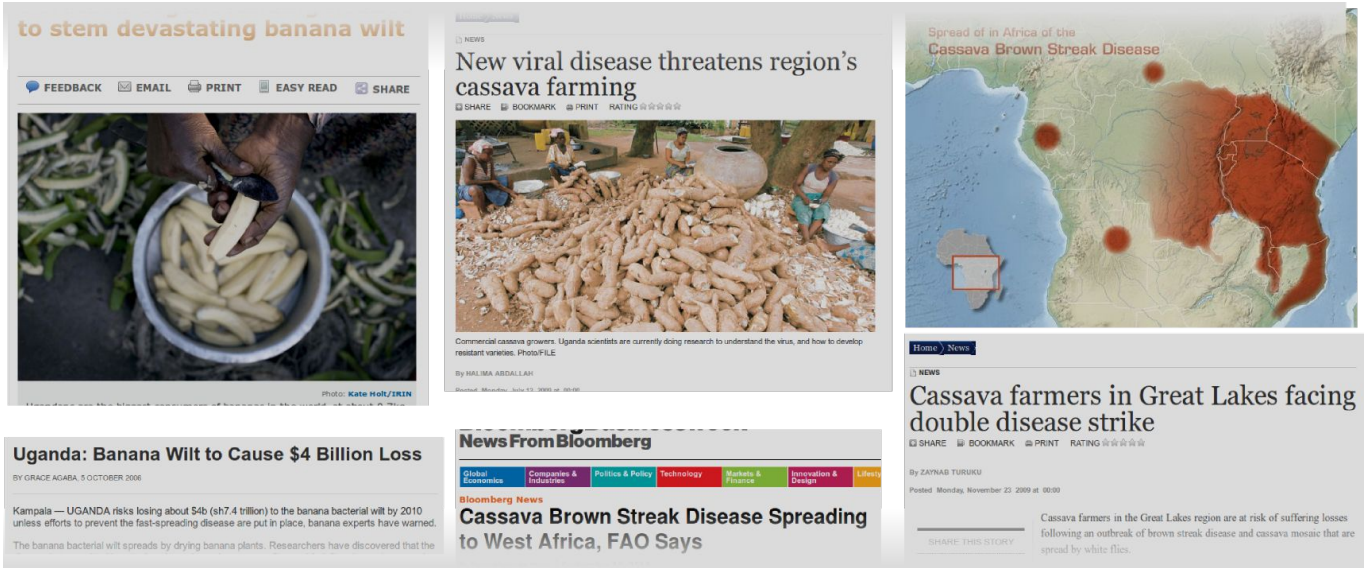
- Machine learning can be used to automate the decision-making processes of scarce human experts.
- Can be used to make inferences at population or global scale.



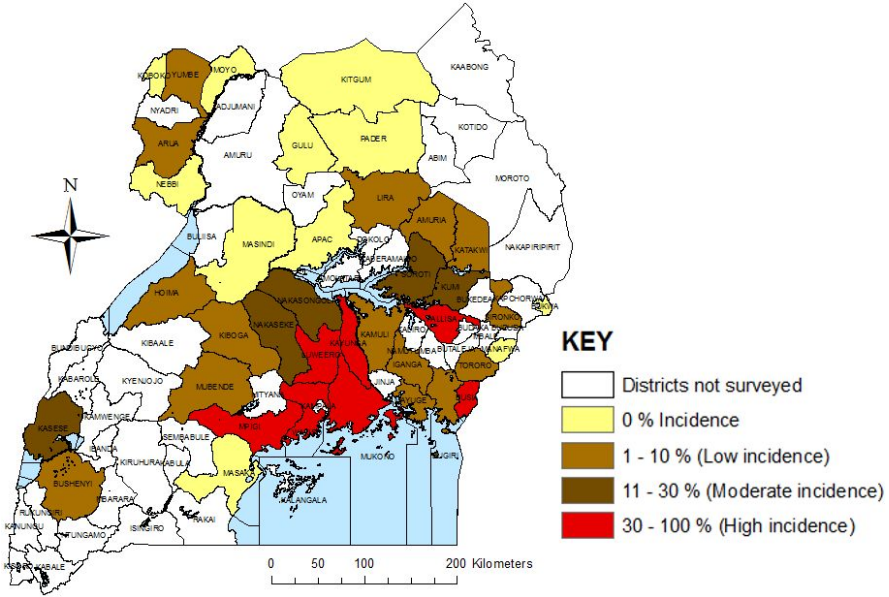
Crop disease monitoring

Information about infectious crop diseases in endemic regions is vital in order to plan interventions.



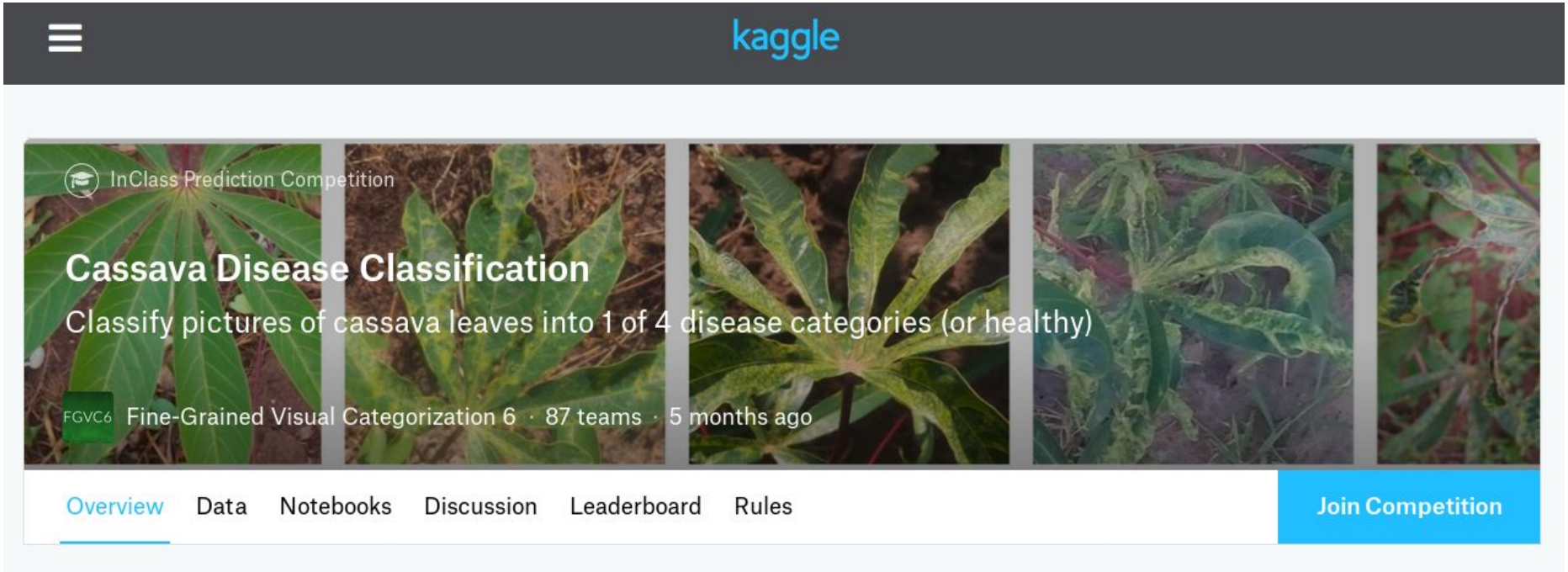
Crop disease monitoring

Conventional survey methods are resource-intensive. It takes several months to produce a map like this:



Collecting information with mobile devices instead of paper speeds things up a lot:

Visual disease classification



Overview

Using machine learning, we can do two things in this problem context:

- Automate the diagnosis of individual plants.
- Infer the distribution of disease across the map.

In this lecture, we'll look at the mapping problem.