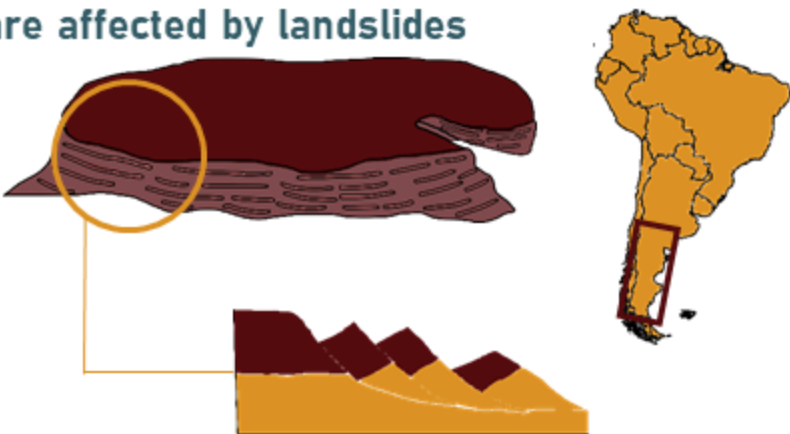


Detect Giant Landslides

with Convolutional Neural Networks (CNN)

Volcanic plateaus in Patagonia are affected by landslides



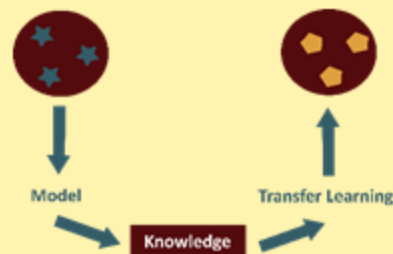
Check out my interactive poster!

We want to know:

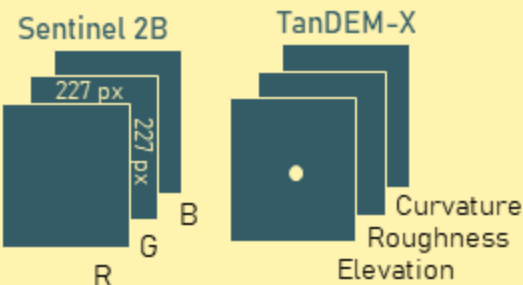
- 1 Are CNNs able to detect giant landslides ($\geq 10^8 \text{ m}^3$)?
- 2 How well do CNNs perform?
- 3 Which training data (spectral/topographic) are best suited?

Approach

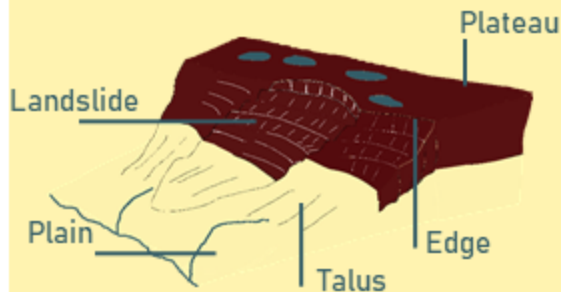
We modify a pre-existing CNN.



We use spectral and topographic data.



We classify multiple landforms around a plateau



TAKE HOME MESSAGE

- 1 We created two CNNs to test how well they can detect giant landslides in the Patagonian tableland from topographic data and spectral satellite imagery to support landslide mapping.
- 2 Highest precision was achieved using a multi-class topographic trained network, which would improve landslide detection.

Classification of landforms with multi-class topographic CNN

