



# BIGGER IS BETTER! OR IS IT?

Lessons learned from using a Deep Neural Network to estimate Indicator #58 of the Sustainable Development Goal's Agenda 2030.

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# 1 Introduction

## 1.1 Sustainable Development

## 1.2 Development Disparities

## 1.3 Big Data

### 1.3.1 Big Data Analyses

### 1.3.2 Big Data for Sustainability

### 1.3.3 title

## 1.4 Image Classification

### 1.4.1 Deep Neural Networks

### 1.4.2 YOLO & Darkflow

### 1.4.3 title

### 1.4.4 title

## 1.5 Goals of this Study

Show potentials of big data in combination with machine learning for indicators of SDGs.

### 1.5.1 Research Questions

In the following paragraph, research questions based on the goals of this study are formulated. Research questions 1 and 1.1 are directly linked to target indicator #58 of the SDGs. Research question 2 is oriented towards the potential, overall contribution of Big Data for Sustainability.

#### **Research Question 1:**

Can georeferenced data for indicator #58 of the SDGs be generated using a Deep Neural Network on the Twitter Streaming API?

**Research Question 1.1:**

Are these data comparable to conventional data for indicator #58 of the SDGs in terms of quality and accuracy?

**Research Question 2:**

What are potentials and limitations of Big Data analyses for the monitoring of the SDGs?

## **2 Methods**

Introduce Methods by means of a flowchart!

### **2.1 Harvesting of training images**

### **2.2 Supervised Classification**

### **2.3 Training ICARUS**

### **2.4 Validation**

Hilbert ([2016](#))

### 3 Results

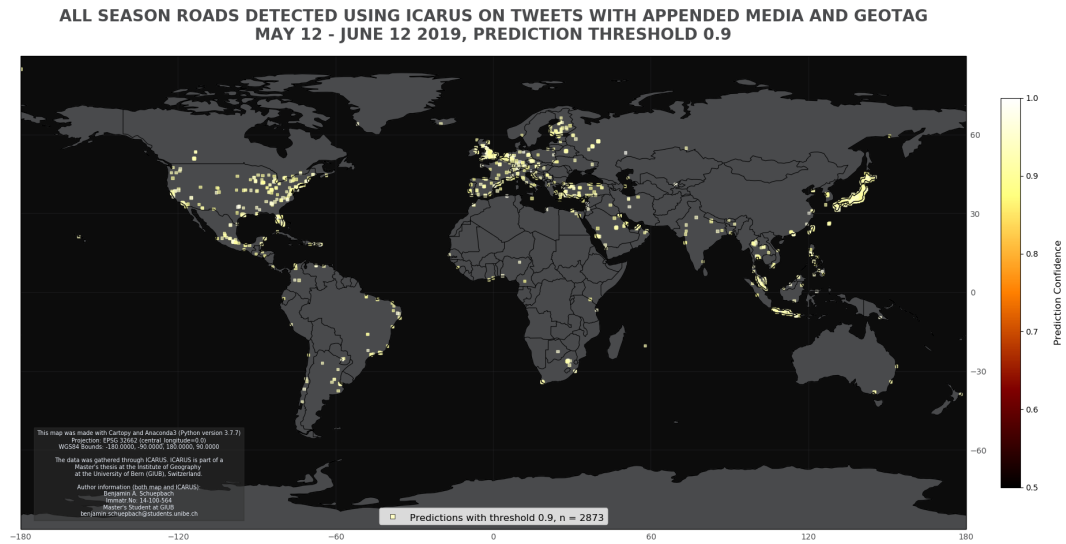


Figure 1: Figure 1: Map of Tweets where ICARUS identified AllSeasonRoads

## 4 Discussion



## 5 Conclusion & Outlook

### 5.0.1 title

## References

Martin Hilbert. Big Data for Development: A Review of Promises and Challenges. *Development Policy Review*, 34(1):135–174, January 2016. ISSN 1467-7679. doi: 10.1111/dpr.12142.