

# Crowdsourcing and AI

CUI, spring 2022

Lecture 1 Part 3

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UNIGE + UNITAR + CERN

# Course Structure

# Class structure

Feb-Mar:

1. Course lecture + discussion (45min)
2. Homework and Project Planning (45min)

Apr-May:

1. Guest lecture (45min)
2. Project execution (45min)

## **Part 1: Introduction to Crowdsourcing and AI**

**W1** Brief history of how we got involved in crowdsourcing and AI

**W2 - W7** Types of crowdsourcing

1. How Crowdsourcing enhances AI
2. How AI enhances crowdsourcing

Special Topics and Guest Lectures include:

1. AICrowd (Sharada Mohanty, EPFL)
2. SDG Solution Kit (Rosy Mondardini, ETHZ/UZH)
3. Participatory Democracy (Juan Antonio Rodriguez, IIA-CSIC)

## **Part 2: Projects using Crowdsourcing and AI**

Examples may include

1. “Human in the Loop” approaches to filtering social media data
2. Algorithms for efficient data aggregation
3. Statistical measures of agreement (kappa)
1. Data mining and machine learning for image analysis
2. Crowdsourcing techniques for improving final output
3. Human/machine pipelines

# Format and Infrastructure

Course on Moodle

<https://moodle.unige.ch/course/view.php?id=3602>

Format

4 hours per week

classroom participation (2hr)

homework and reading (2hr)

Office hours

Tuesday afternoons ... or just ask!

# Grading

Active Course Participation: 1/6  
(monitored with attendance list)

Homework and Classwork : 2/6  
(questions in class, uploaded answers)

Project Presentation: 1/6  
(case study, team presentation, external jury)

Project Report: 2/6  
(case study, team report, with individual chapters)

# Project structure

1. Feb-Mar  
Development of case study concept in pairs.
2. Apr-May  
Development of case studies with help of external partners, mentors



# Classwork/Homework

User Experience of a Zooniverse project:

<https://www.zooniverse.org/projects>

Science: what did you learn from trying to participate?

Technology: what was your experience with the interface?

Society: How many volunteers? How do they communicate?

AI : Could the task be done by an AI? Is AI already involved ?

Read “The Rise of Crowdsourcing”

<https://www.wired.com/2006/06/crowds/>

For discussion in class next week: what different types of crowdsourcing does the author mention in this article?