

Crowdsourcing and AI			14X032	
François GREY (PI) et Jose Luis FERNANDEZ-MARQUEZ (MER)				
Nombre d'heures par semaine	cours	2	Semestre d'automne	
	exercices	2	Semestre de printemps	<input checked="" type="checkbox"/>
	pratique	1*	Total d'heures	56/70*
Cursus			Type	Crédits ECTS
Master en sciences informatiques 90 ECTS			Option	4
Master en sciences informatiques 120 ECTS			Option	5

OBJECTIFS :

The objective of this course is to introduce M.Sc. Students to some of the most important concepts, methods and tools that are emerging, for combining crowdsourcing and AI technologies. A special focus of this course, based on research by its teachers, is on applications of crowdsourcing and AI for activities related to the Sustainable Development Goals (SDGs) of the United Nations.

CONTENU :

Crowdsourcing is a relatively new term, coined in 2006, for a phenomenon that has existed for decades, and that is sometimes referred to as 'citizen science' or 'collective intelligence', depending on the context. In this course, we will explore how crowdsourcing and digital technologies have helped to disrupt conventional distinctions between amateur and professional science. Citizens can collectively make real contributions to cutting-edge science projects, and thanks to AI technologies, those contributions are becoming increasingly sophisticated.

This course introduces the concepts of volunteer computing, volunteer thinking and volunteer sensing, as well as providing hands-on experience with the technologies that make these possible, and insights into how AI technologies are enhancing and expanding the potential of these sorts of crowdsourcing. The course also explores the diverse nature of the contributions and the motivations of participants in crowdsourcing activities, and how that may depend on the rewards - monetary or other - they receive.

During the course, the students will familiarize themselves with several AI methods and tools that are useful in conjunction with crowdsourcing. One example is the case of active learning, where machine learning is enhanced to enable interactive querying of humans to improve the size and quality of data sets. The goal by the end of the course is to produce a case study of a specific, academic or commercial example of crowdsourcing and AI, to be presented both orally and as a report.

Students should allocate approximately 4 hours per week to this course, in the form of classroom participation (2hr), homework and self-study (2hr).

Forme de l'enseignement	Course, homework and reading, project work and self-study
Documentation	-
Préalable requis	-
Préparation pour	-
Mode d'évaluation	Oral exam / project

