UM6P | School of Collective Intelligence

MASTER
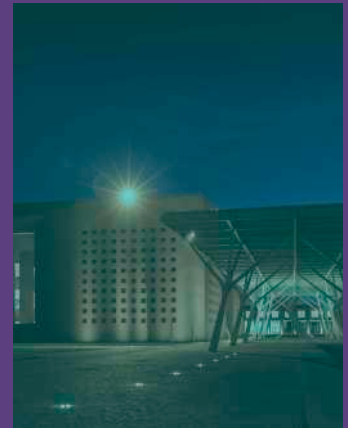# Collective Intelligence

Business and Management Pole

ABOUT
MOHAMMED VI POLYTECHNIC UNIVERSITY

University Mohammed VI Polytechnic (UM6P) is a Moroccan university focusing on developing solutions to specific continental and more broadly global challenges. UM6P is oriented towards education and research, with strong links to industry, business, and innovation. The university commits itself to empowering a new generation of talents that will build and lead the future of Africa. It has a total of 5684 students, including 721 PhD students, with a research and academic community representing 33 nationalities.

UM6P sets sight on responding to the various needs of African economies. From its main campus in Benguerir, near Marrakech, and its branches in Rabat, Laayoune and Paris, the university offers a new kind of learning environment, inspiring innovation and entrepreneurship through its Living Labs and peer-to-peer learning philosophy.

With academic departments and research programs spanning science and technology, business and management, humanities, and medicine, and based on a research solving-problem approach, UM6P is designed to benefit not only Africa, but the world as well.

You are most welcome to join us

SCHOOL OF COLLECTIVE INTELLIGENCE

Begun in June 2019, we are developing the world's first comprehensive programs in collective intelligence at the masters and PhD level.

At our campus in Rabat, Morocco, we offer research, teaching and training programs that will help advance the emerging field of collective intelligence. To achieve our ambitions, we are partnering with scholars from leading institutions such as MIT, Yale, and NYU.

OUR MISSION

1. Generate new knowledge about human collaboration through world-class research.

2. Help leaders unlock the intelligence of teams, businesses and communities.

3. Break down barriers for a more collaborative and sustainable world.

WHAT IS **COLLECTIVE INTELLIGENCE?**

Collective Intelligence is the ability to **effectively share information and solve complex problems as a group**; a natural phenomenon in which collective performance can surpass that of any individual.

Collective intelligence is the scientific field studying the conditions of this phenomenon within teams, organizations, and societies.

Why does the world need collective intelligence?

1. To adapt governments, civil society and business to increasing complexity

2. To sustain relationships of trust and common purpose

3. To create systems that bring many forms of intelligence together to solve the challenges of a increasingly connected world

OBJECTIVES

The Masters in Collective Intelligence will train students in the basic pillars of collective intelligence, including cognitive and data sciences as well as participatory methods and organizational design. Particular emphasis will be placed on mastering experimental and statistical techniques for testing the effectiveness of different methods for maximizing collective intelligence. Students will gather experience applying these methods in research and/or real-world settings.

CAREER OUTLOOK

Interest in collective intelligence is on the rise in corporations, universities, and societies at large. This program will prepare our students for a range of careers as researchers, analysts, experts or facilitators in various fields of problem solving, digital or organizational transformation, public innovation and more.

CORE COMPETENCIES

• Masters students in Collective Intelligence will learn to think critically and scientifically about data, human behavior, and practical problems such as leading positive behavior change within teams, organizations and communities.

• They will learn how to carefully design behavioral experiments and randomized controlled studies, in which experimenters manipulate variables between experimental conditions in order to infer causal information about how the mind works and/or the effectiveness of certain interventions within organizations.

• In addition, students will develop technical skills in the areas of data science, statistics and computer science (e.g., designing computer systems to augment and complement collective reasoning and problem-solving). Finally, they will gain experience designing and applying technologies that reinforce collective intelligence in real-world settings.

ELIGIBILITY

Candidates must hold a Bachelors degree (BA) or equivalent. Given the highly interdisciplinary nature of our Master's program, we are open to students with a wide range of academic backgrounds. Candidates will be evaluated on the basis of their skills and motivation. Knowledge of applied statistics, and management are considered positive traits but not necessary for admission. Basic coding skills are highly recommended.

PEDAGOGICAL COMMITTEE

Dr. Cathal O'MADAGAIN (UM6P)
Academic & Scientific Director
Cognitive science, philosophy

Prof. O'Madagain's work explores the social foundations of human thinking. He studied at the University of Toronto and previously worked as a research scientist at the Max Planck Institute for Evolutionary Anthropology.

At SCI he leads research on collaborative learning and on cross-cultural differences in the ways we share information and solve problems in groups.

Dr. Lex PAULSON (UM6P)
Executive Program Director
Philosophy, political science

Dr. PAULSON is Co-founder of the School of Collective Intelligence, Dr. Paulson has trained leaders in government and business in over 20 countries.

A mobilization strategist for the campaigns of Barack Obama and Emmanuel Macron, he studied political theory at Yale and Cambridge before earning his PhD at the Sorbonne. His work centers on leadership and democratic innovation.

Dr. Ikram CHAIRI (UM6P)
Machine learning, data science

Dr. Chairi's research interests focus on data science and machine learning, with a special interest in developing algorithms to treat the anomalies found in raw data. She received her PhD in Machine Learning from University Abdelmalek Essaâdi and did post-doctoral research at the Laboratory of Applied Artificial Intelligence of University Carlos III of Madrid.

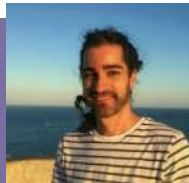**Dr. Fatima Ezzahra BENMARRAKCHI** (UM6P)
Phd Coordinator
Social cognition and computing

Dr. Benmarrakchi works in the field of educational technology and special education. She focuses on how the use of technology can improve learning for children with learning disabilities (e.g. Dyslexia) or Autism Spectrum Disorder. She studied at the University of at Chouaib Doukkali (UCD) El Jadida and previously worked as a research associate at UCD in the LAROSERI laboratory.

Dr. Jose Segovia Martin (UM6P)
Master coordinator
Cognitive Science, Computational Social Science

Dr. Segovia Martin's studies the evolution of collective behaviour. During his PhD he obtained relevant training in computational social science and mathematical engineering: a significant part of his research was developed at the Centre for Language Evolution (University of Edinburgh) and the Laland Lab (University of St.Andrews).

Dr. Emile SERVAN-SCHREIBER (UM6P)
Cognitive science, crowd-based forecasting

Dr. Servan-Schreiber's studies the power of groups to predict and innovate. Earning his PhD at Carnegie Mellon University, he has helped leading companies in Europe and North America harness collective intelligence to forecasts better and decide smarter. Co-creator of the Hypermind prediction platform, he is author of "Supercollectif: la nouvelle puissance de nos intelligences" (Fayard, 2018).

OTHER MEMBERS OF OUR FACULTY

Dr. Florencia DEVOTO
(UM6P)
Development economics, education

Dr. Mark KLEIN
(UM6P/MIT)
Data science, artificial intelligence

Dr. Mehdi Moussaid
(UM6P)
Cognitive science

Dr. Sarah Alami
(UM6P)
Anthropology, human behavior ecology

Dr. Ed Seabright
(UM6P)
Anthropology, evolution of political systems

Dr. Manal El Akrouchi
(UM6P)
Computer science

Dr. Brent STRICKLAND
(UM6P/ENS-Ulm)
Cognitive science, core cognition

Dr. Hugo MERCIER
(ENS-Ulm)
Cognitive science, collective reasoning

MASTERS: 1ST YEAR

S1
- Programming, Data Science and Statistics 1
- Computer Science Methods in Collective Intelligence 1
- Cognitive Science 1
- Experimental Methods 1
- Scientific English
- Innovation & Core skills

S2
- Programming, Data Science and Statistics 2
- Computer Science Methods in Collective Intelligence 2
- Cognitive Science 2
- Experimental Methods 2
- History and Philosophy of Collective Intelligence
- Leadership & Organizational Transformation
- Short internship in first year with Moroccan company, or NGO

MASTERS: 2ND YEAR

S3
- Programming, Data Science and Statistics 3
- Computer Science Methods in Collective Intelligence 3
- Cognitive Science 3
- Experimental Methods 3
- Political Science and Participatory Governance
- Evidence-based Leadership in Companies – Leadership Lab

APPLIED OR SCIENTIFIC INTERNSHIP

S4 At the end of the second year, students will undertake a 6-month internship, acquainting themselves with the job market, and new areas of research.

EMPLOYMENT **OPPORTUNITIES**

We aim to prepare our students for a range of opportunities in the academic, private, public, and non-profit sectors. Students will develop a range of technical and human skills that will prepare them for careers as:

- computer and data scientists, who understand the social contexts these tools are needed for;

- researchers, who can build sustainable development projects or pursue theoretical work on culture and society;

- facilitators and organizational-transformation specialists, who can use cognitive science to understand organizational behavior.

Moreover, we provide opportunities to "learn by doing" as well as networking opportunities so that motivated students come out prepared to thrive in a fast-changing job market.

Admissions criteria

Candidates must hold a Bachelor's degree (BA) or equivalent. Given the highly interdisciplinary nature of our Master's degree, we are open to all disciplines. Candidates will be evaluated on the basis of their skills and motivation.

Application requirements*

• Curriculum Vitae
• Motivation letter
• Two ID photos
• Copy of ID/Passport
• Copy of all diplomas or degree certificates
• Undergraduate transcripts
• Two letters of recommendation

Original documents and / or certified copies will be required at the time of final registration.

See our in depth FAQ here

Duration
2 years

Seats
20 students

Training venue
Mohammed VI
Polytechnic
University - Rabat

Language
English (Full
Time Master's
degree program)

Admissions calendar

We invite you to sign up online via the link **my.um6p.ma** by completing the requested information or by contacting us at: **CImaster@um6p.ma**.

If you are shortlisted, you will be invited to a written competitive examination followed by an oral interview in keeping with the following schedule:

• **April 15th :** Application deadline
• **May/June :** Written examination and oral interview
• **End of June :** Admission results and receipt of scholarship application files
• **Septembre/Early October :** Start of term

Selection process

• Application Review
• Written Exam
• Oral Interview

Scholarships

In line with its civic commitment, UM6P supports the students through an attractive system of academic scholarships and financial aid grants.

Tuition and fees

• Registration fee : 5.000 Dhs
• Tuition costs : 75.000Dhs / year

More information on scholarship requirements available here .

Tuition covers courses, access to the Language Lab and the Learning Center, access to sporting facilities of UM6P. They do not cover the cost of housing or daily living.

More information on accommodation and fees available here .

FOR MORE INFORMATION

U M 6 P

University
Mohammed VI
Polytechnic

Coordinator : Pr. Jose Segovia Martin UM6P
Contact person : sanaa.lahlali@um6p.ma
CImaster@um6p.ma
sci.um6p.ma

University Mohammed VI Polytechnique
Rabat Campus, Rocade Rabat-Salé, 11103., Morocco

www.um6p.ma