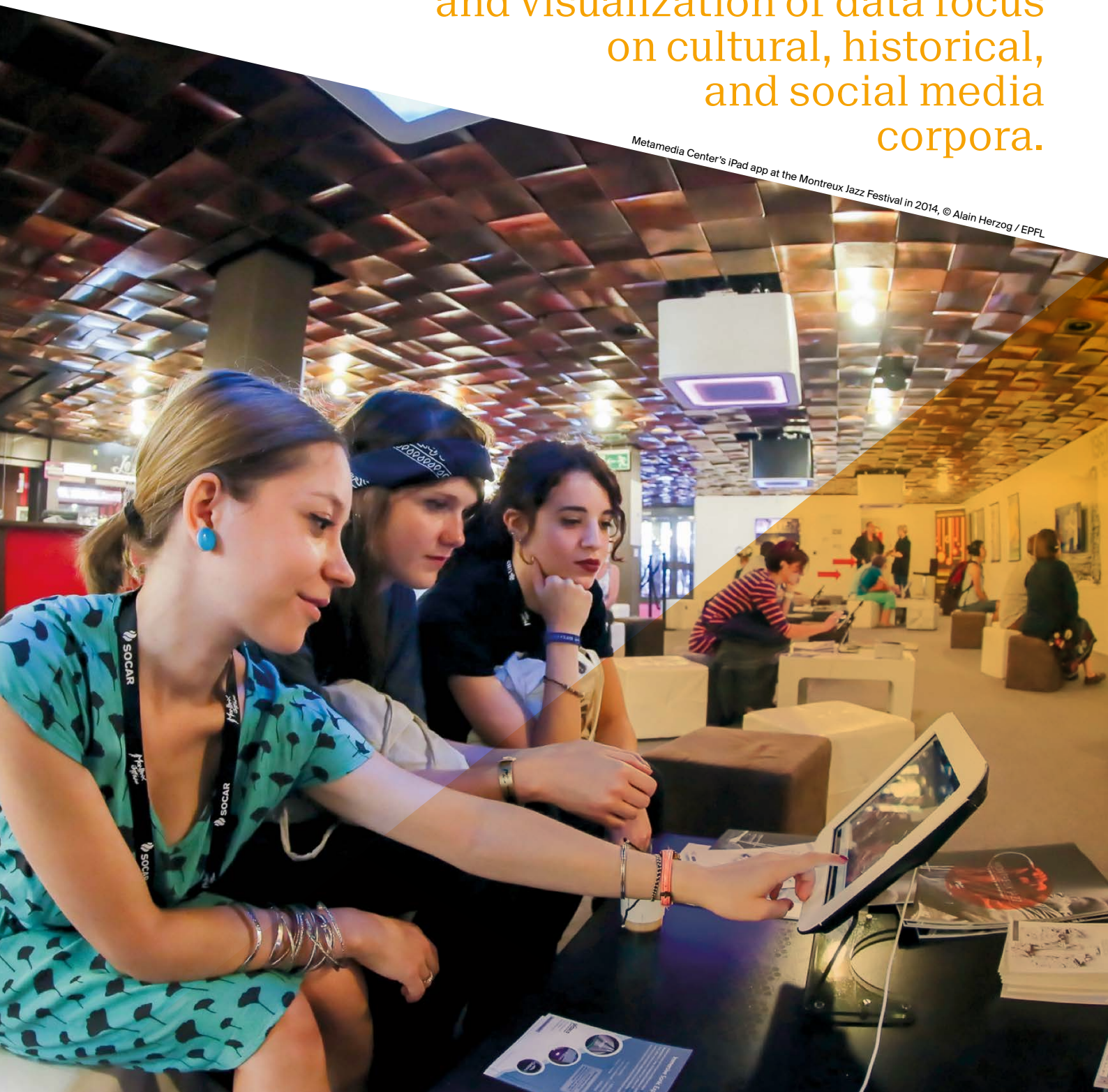
MASTER

DIGITAL HUMANITIES

The Master of Science in Digital Humanities offers a unique and interdisciplinary study plan that encompasses data acquisition and analysis, audio and image processing, machine learning and pattern recognition, data visualization, and digital culture. The originality of the program is that the acquisition, organization, analysis and visualization of data focus on cultural, historical, and social media corpora.



Metamedia Center's iPad app at the Montreux Jazz Festival in 2014. © Alain Herzog / EPFL

Michel Benard, Google Zurich: "We are always looking for Computer Science engineers and graduates. Among them, these with a Master of Science in Digital Humanities are of great interest to us."

© Alain Herzog / EPFL

Interdisciplinary crossroad of opportunities

At the intersection of computer science, engineering, humanities, and social sciences, the Master of Science in Digital Humanities forms a new class of professionals who are able to analyze and interact with rich cultural, historical, and social media data. These skills are in high demand in academia, cultural institutions, and in the corporate sector.

According to McKinsey, we will face a shortage of millions analysts and managers who can analyze (big) data and make decisions based on the results. Graduates with a Master of Science in Digital Humanities have the scientific rigor necessary to develop new algorithms and systems, and to understand their impact in a broader social and cultural context.

Jutta Kaht, Secquaero (CH): "There is a need to merge technical expertise with humanities. Everywhere there is a pattern to be discovered."

Project-oriented learning

The aim of the Master of Science in Digital Humanities program is to merge theoretical learning with practical and project-oriented training asked for by today's businesses, academia, and the public sector.

Students have the opportunity to work on a variety of existing projects such as the Archives of the Montreux Jazz Festival, the Venice Time Machine, and research involving other corpora. These projects allow them to acquire the skills necessary to make sense of socially produced data.

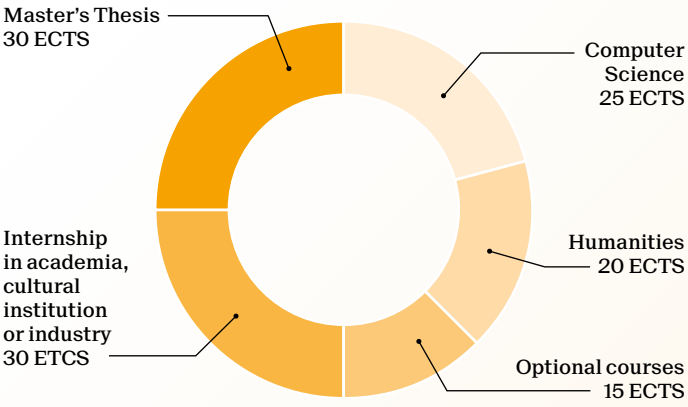
Projects in Digital Humanities involve a wide range of techniques and tools from the computer and communication sciences fields that are at the core of challenging new applications such as: extracting and analyzing human behavioral patterns using social network data; building an immersive setup to recreate the authentic audio-visual experience of past concerts from the Montreux Jazz Festival archives; conducting layout analysis over millions of digitized newspaper articles from the last 2 centuries; or creating a smartphone app to identify paintings or details in paintings using deep learning techniques.

The Master of Science in Digital Humanities enables students to interact with professionals from different academic and non-academic backgrounds. It allows them to transfer their skills into a successful career in the private or public sector.

Master of Science in

DIGITAL HUMANITIES

2-year program – 120 ECTS



Optional courses: students choose an orientation:

A Audio-visual Media
B Spatial Digital Humanities

	ECTS
Computer Science	**25**
Applied data analysis	6
Computational social media	4
Digitalisation and visualisation	4
Introduction to digital humanities	4
Pattern classification and machine learning	7

Humanities	**20**
Data corpora	4
Digital culture	5
Distant reading	5
SHS: Introduction to project	3
SHS: Project	3

Optional courses			**15**
Advanced Computer Graphics	A		6
Analyse exploratoire de données géospatiales		B	3
Automatic speech processing	A		3
B2B high-tech marketing	A	B	4
Computational Photography	A		5
Computer Vision	A	B	4
d. Thinking: real problems, human-focused solutions	A	B	5
Database Systems	A		7
De la structure a l'ornement	A	B	3
Decision-aid methodologies in transportation		B	4
Digital 3D Geometry Processing	A	B	5
Digital Education & Learning Analytics		B	4
Digital Humanities	A	B	7
Digital Museology and Art History	A		4
Digital Musicology	A		4
Geocomputation		B	3
Human Computer Interaction	A	B	4
Image and Video Processing		B	6
Image Processing 1	A	B	3
Image Processing 2	A	B	3
Introduction au BIM (Building Information Modeling)		B	3
Introduction to Natural Language Processing	A	B	4
Linear Models	A	B	5
Programming concepts in scientific computing		B	4
Spatial Statistics and analysis		B	5
Strategic Marketing and Technology commercialization	A	B	4
Technology & innovation strategy	A	B	4
Théorie de l'espace		B	3
UE H: Graphie		B	4
UE J : Territoire et paysage		B	4
UE R : Introduction au BIM (Building Information Modeling)		B	4
Virtual Reality	A	B	4
Visions et Utopies	A	B	3

CAREER PROSPECTS

In this growing field, many opportunities in cultural institutions in Switzerland and abroad are available. A graduate of the Master of Science in Digital Humanities will be an asset in institutions like BnF Biblissima, Harvard Library, the Swiss National Library, national and international museums and the archives of International Organisations.

Moreover, the graduates will have access to jobs in companies like Facebook, Google, and Microsoft, and will have opportunities to work in companies like Nespresso, Cisco, or for radio and television networks.

Contact information: master-dh@epfl.ch

ADMISSIONS

Admission to the Master will be on a case-by-case basis (sur dossier). Students will be evaluated based on their academic curricula, which include knowledge of statistics and advanced programming skills, and a demonstrable interest in the broader field of humanities and social sciences.