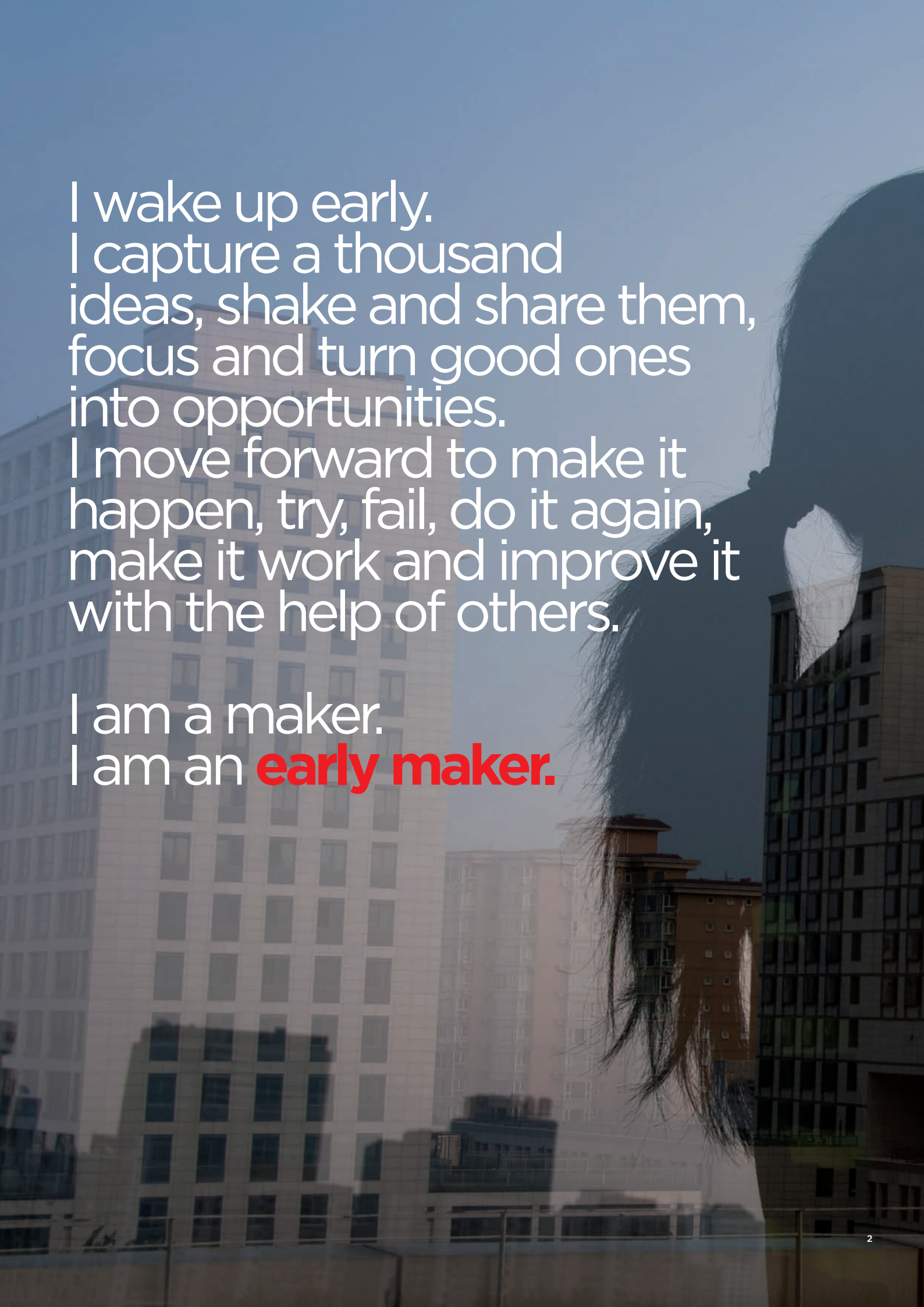# MSc in DIGITAL MARKETING & DATA SCIENCE

early makers

em lyon business school

LYON . SHANGHAI . SAINT-ETIENNE . CASABLANCA . PARIS

I wake up early.
I capture a thousand
ideas, shake and share them,
focus and turn good ones
into opportunities.
I move forward to make it
happen, try, fail, do it again,
make it work and improve it
with the help of others.

I am a maker.
I am an **early maker.**

entrepreneurs are makers, we make entrepreneurs

MSc in Digital Marketing & Data Science

the best of both worlds

—

No, we're not dreaming: immersed in the routine of our daily lives, we are overwhelmed by 3,800 ads every day. And we see 5,000 logos without really seeing them at all. So it shouldn't come as a surprise that 90% of the data produced on the planet to date were generated in the last two years!

Marketing has existed since people started swapping berries for seeds. And writing was born when this trade had to be recorded. In 2018, with the irreversible emergence of a digital society, we have landed squarely in the 21st century. This new industrial revolution, as invisible as it is omnipresent, has categorically reshuffled the marketing cards. In a digital world, prospects spread traces of their lives everywhere... they generate a wealth of data. On social networks, when they surf the net, when they pay by credit card, or sign up to customer loyalty programs or competitions... or even simply when they have their smartphone on them.

In 2018, managers need to incorporate what has now become a reality: in a digital society, **it is impossible to imagine marketing without incorporating data... or data without marketing**.

Analyzing... or understanding consumers?
-

Digital technologies are transforming consumer behavior - from the way we purchase to the way we date! To stay ahead of the curve, managers face the challenge to measure, analyze and predict these transformations... this is where data science plays its role. But this is not enough. Managers must also understand the logic and new forms of customer behavior in a digital world. This is where digital marketing comes into play. Analyzing or understanding? They are indispensable, and this program helps you to perfect both.

Digital marketing
-

- Understanding customer behavior
- Excellent customer experience
- Imaginary (insight)
- Creating a long-term relationship built on commitment, trust, and reciprocity
- Incorporating technological innovations: the Internet of Things, augmented or virtual reality, and hyper-mobility
- Digital ecosystems and new business models

Data science
-

- Customer knowledge: quantitative approach
- Programmatic approach
- Using new information systems for more effective analytics
- Using machine learning and artificial intelligence to develop new products and services

Your profile for a new generation of managers
-

- You are passionate and ambitious, you like challenges as much as you like inventing.
- You want to follow a challenging training program today, learning to take a visionary approach with a view to the future and an international horizon.
- You know that digital technologies (internet, social media, AI, machine learning, etc.) and the data that they generate have changed our society forever.
- You know that marketing is now irreversibly linked to digital technologies.
- You know that the managers of tomorrow need to understand the challenges of data programming and analysis.
- You want to join a new generation of marketing professionals with rare skills, in a commercial environment that is benefitting from the explosive growth in online technologies.

Your quest begins now! **Are you more a digital marketer or a data scientist? Make sure you are in step with the requirements of the day and anticipate tomorrow without delay: become both!**

When digital marketing and data science make the difference...
-

Just imagine: if you were the manager of a large supermarket chain, wouldn't you dream of having data on your customers' shopping behavior? What do they buy? At what time? How much do they pay? How often? What is their age and gender? Their profession? What do they say about your brand and your products on Facebook and Twitter? Your brand could analyze millions of terabytes of information per day (loyalty data): heterogeneous data from the internet, cash registers, loyalty cards... even CCTV cameras.

The store of the future will enable new user experience which require new competencies and skills.

Digital marketing isn't for tomorrow. It's for today.

Macy's has done it. The retailer adjusted its campaigns, its in-store operations, even its shelf layout. It devised a specific prescriptive mode for each customer segment. The result: its in-store sales jumped by 10% in just one year... while the sector had taken ten years to rise by 7%! *(Data source: Loyalty/Xerfi)*

MSc in Digital Marketing & Data Science
tomorrow is today
—

Discover. Do. Then become
–

Today's managers cannot simply analyze consumers. They need to understand human beings, while also respecting their privacy. The MSc in digital marketing and data science stems directly from this fundamental requirement of present-day companies.

The program is based on powerful, essential dynamics.
• Acquiring cultures and skills sourced from management and new computational sciences: the MSc trains you in the best of marketing and big data.
• Learning from real contexts as much as from theory: the learning path is first a bridge then a gateway between you and the corporate world.
• Meeting and immersing yourself in a multitude of global cultures, skills, and best practices will enable you to put into practice and experience a competency while acquiring it.
• Every student dreams of their own specific career. So do you. The MSc in Digital Marketing and Data Science equips you with the best toolkit for becoming an early maker so that you can take to the skies with the best chances of success… in line with your professional dream.

Make a commitment to discovery by immersing yourself in the realities of management. And above all, unleash your passion for learning, your passion for discovering the most advanced practices and technologies. For finding innovative solutions. For doing. For advancing. And for moving things forward.

More than a Master: a journey to the very heart of business through digital marketing

+ Margherita Pagani // PhD in Management // Professor of Digital Marketing // joint Director of the MSc

-

"We want to help students understand the management challenge of digital marketing. The objective of the program is to provide students with skills in two disciplines that appear very different but that are actually very complementary, and to offer a more specialized digital marketing or data science program, as these fields have common roots. In most programs, it is difficult to understand the two worlds simultaneously. The objective here is direct experience-based learning and not just theory-based learning. We offer an immersive experience in different cultures, in universities and businesses, and with professionals who are immersed in digital marketing and data science on a daily basis. Sharing experiences helps to inspire as much as to teach. We provide the essential tools: each person will then be able to use them in the next steps of his or her own journey."

The Data Science Institute: em**lyon business school** and data culture

-

Immersed in the day-to-day reality of businesses and of their needs, em**lyon business school** has long been aware of the emerging importance of data in management. Always open minded, the school observes global best practices on the topic and integrates them into its training programs at a very early stage. But its DNA has allowed it to go further. Rather than calling on external consultants specializing in data science but lacking in management experience, em**lyon business school** has its own integrated institute: the Data R&D Institute. The advantage? A data approach steeped in digital marketing culture… and a digital marketing approach steeped in data culture. This naturally acquired experience will now belong to you.

The Data R&D Institute website:
http://data.em-lyon.com

Ahead of the pack today

+ Clément Levallois // PhD in Social Science // Associate Professor of Data Science // joint Director of the MSc

-

"We are offering a very intense and very comprehensive program for motivated and ambitious students. This is a very advanced program in digital marketing and programmatic data analysis, but we also wanted to include classes on user experience, on content strategies, on consumer behavior, and on ethics – a major societal challenge, to which companies are particularly sensitive. We didn't want to take the lowest common denominator of marketing and data science. Quite the opposite! We draw on the best of what these fields have to offer a future manager. In today's world it is essential to put yourself in the user's shoes. This is key for understanding and working in marketing today and in business in general. We want to transmit the wealth of these two worlds of digital marketing and data science. This reality on the ground is sure to grow irreversibly in the years to come."
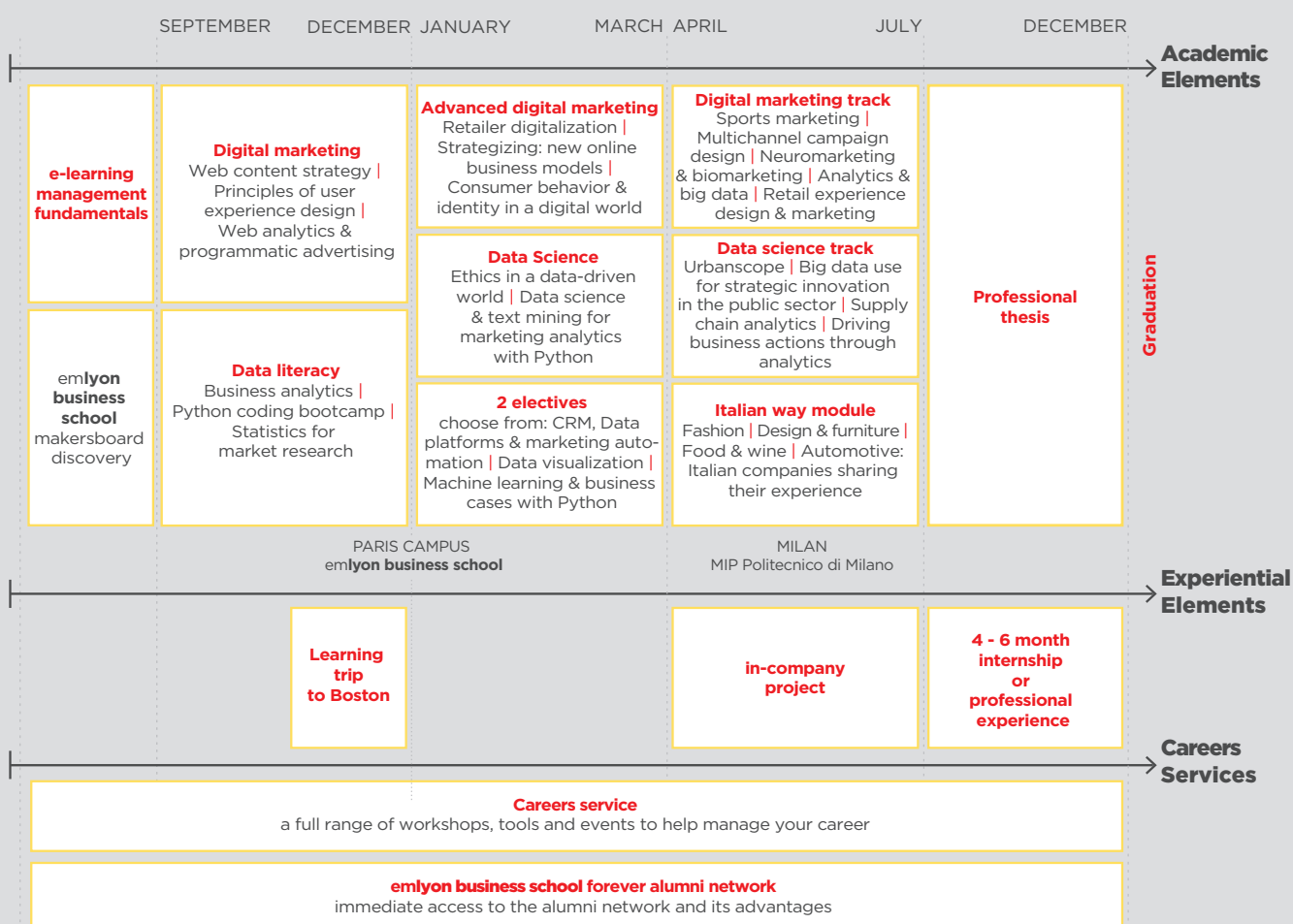
Program
overview
—

SEPTEMBER	DECEMBER	JANUARY	MARCH	APRIL	JULY	DECEMBER	**Academic Elements**

e-learning management fundamentals

Digital marketing
Web content strategy | Principles of user experience design | Web analytics & programmatic advertising

Advanced digital marketing
Retailer digitalization | Strategizing: new online business models | Consumer behavior & identity in a digital world

Digital marketing track
Sports marketing | Multichannel campaign design | Neuromarketing & biomarketing | Analytics & big data | Retail experience design & marketing

em**lyon business school** makersboard discovery

Data literacy
Business analytics | Python coding bootcamp | Statistics for market research

Data Science
Ethics in a data-driven world | Data science & text mining for marketing analytics with Python

Data science track
Urbanscope | Big data use for strategic innovation in the public sector | Supply chain analytics | Driving business actions through analytics

Professional thesis

Graduation

2 electives
choose from: CRM, Data platforms & marketing automation | Data visualization | Machine learning & business cases with Python

Italian way module
Fashion | Design & furniture | Food & wine | Automotive: Italian companies sharing their experience

PARIS CAMPUS
em**lyon business school**

MILAN
MIP Politecnico di Milano

Experiential Elements

Learning trip to Boston

in-company project

4 - 6 month internship or professional experience

Careers Services

Careers service
a full range of workshops, tools and events to help manage your career

emlyon business school forever alumni network
immediate access to the alumni network and its advantages

9

Program
details

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Semester 1
Learning the fundamentals

Master the fundamentals of digital marketing (such as web analytics) and programming, which are skills highly valued by companies today, and which will become a "must have" in the near future. You will learn how to access and digest a variety of data streams in a marketing context. You will be able to manage campaigns and understand the technological needs of a data science project.

Digital marketing approach
-
• Content strategy: strategic vision of the role of a website and the inbound marketing approach
• Design principles for a high-quality user experience, from design to measuring UX
• Web analytics and online advertising, from analyzing footprints to KPI

Discovering business intelligence (BI)
-
Learn the fundamental BI tools, which are a necessary prerequisite for deploying more complex data science analysis tools:
• Excel (Expert mode)
• SQL queries
• Discover or refresh your knowledge of statistical principles

Learn the language of data science, acquire essential programming languages
-
• Python bootcamp: master this new programming staple
• R: essential for statistics and data visualization

Learning trip to Boston: giving new meaning to the "new world"
-
For one week in late November, fasten your seatbelt as we take off for the New World – the ecosystem of Boston, one of the most innovative on the planet. In store are research seminars, including one at MIT and other prestigious local universities, as well as meetings with experts from some of the most renowned digital marketing companies. You will also visit Mass Challenge, the world's leading digital startup accelerator.
Let Boston unveil itself and discover the secrets of innovation and value creation. Make this economic environment your own to create your personal business practices... And start to build your international professional network on the ground!

Achieve a successful user experience and everything will fall into place...
-
User experience (UX) has become one of the secrets of customer centrism. From design to psychology, from understanding expectations to studying practices, UX is crucial to the success of a digital marketing strategy. The MSc in Digital Marketing and Data Science focuses on this vital competency, which is all too often overlooked. Quantifying, analyzing, and optimizing user experience in every project will change the way you look at the business... enabling you to bring real added value to your future employer.

The Python bootcamp: *Python rider!*
-
You want to see what it's like to be a creator of ideas? Programmers have been described as the "wizards of tomorrow" because programming makes it possible to create anything - from the new Candy Crush to the software piloting autonomous cars! The bootcamp is a fast paced, intensive learning experience of Python. On the agenda: get to grips with programming concepts by taming Python, the most widely used and powerful language for data crunching. You will quickly be able to leverage this knowledge to perform powerful analytics on customer or transactional data.

Semester 2
Deepen your expertise

Master the most innovative technologies and apply them right through to the physical point of sale. Understand how these sales strategies lead to an omnichannel approach and improve the customer shopping experience. Use the right tools for measuring and optimizing results, including understanding KPIs and knowing how to measure the digital ROI for a retail business.

- New online business models and their characteristics: advertising, computer graphics, value chain, communities, subscriptions, etc.
- Consumer behavior and identity in the digital world: the digital transformation of traditional shopping practices. Studying the consumer's influence on businesses and brand evaluation processes
- Ethics in a world of data – a key challenge!
- Data science for marketing analysis with Python: we will draw on the Python bootcamp from the first semester to further explore quantitative data analysis techniques.

Set the tone for your professional future
-

In this second semester, you will need to choose two of the following three modules depending on your professional ambitions:
- CRM, data platforms, and marketing: with a focus on the software architectures used to digitally manage customer relationships and customer knowledge – and marketing automation
- Data visualization: using the principles of data visualization to develop data storytelling
- Machine learning and case studies with Python: decipher the key areas of machine learning on business themes.

Ethics 2.0?
-

Digital society may well be omnipresent, but it is young. It provokes new technologies and forms of behavior that require new moral codes. Invasive marketing is a threat to privacy and personal data: we need to address this fundamental aspect of the digital era, which is a key preoccupation of businesses and citizens today. You will analyze and document genuine cases. You will learn how to run a data analysis project in "privacy by design" mode in conformity with new regulatory requirements such as the European General Data Protection Regulation.

New online business models
-

We often refer to the digital revolution. We also find this phenomenon in product revolution and in business model revolution, leading to the construction of new value chains. Amazon, Facebook, and Google have created new offerings, new markets. But when it comes to analyzing their economic model, there are many questions for startups or mature companies that have gone digital: should they value their data or its uses? Should they innovate in-house or adopt an alliance strategy? What price should they charge for a digital service? We will analyze these various new models and their characteristics, equipping you with the right tools to be a proactive source of proposals at the highest levels of corporate strategic decision making. The objective: to acquire a strategic vision on a subject with strong technological content.

Semester 3
Expand your horizons

Destination: Italy! Discover Milan, the transalpine metropolis and capital of fashion, design, and Italian business. At the heart of Europe's 4th largest metropolitan area, with its 7 million inhabitants, benefit from the worldview of the MIP Politecnico di Milano, the prestigious Italian engineering school devoted to science, technology, and design. You will specialize through courses, internships, and workshops, in a model professional and international context. On the agenda: a focus on interacting and meeting people to absorb new business cultures.

The digital marketing track
-
• Sports marketing
• Multichannel campaign design
• Neuromarketing & biomarketing
• Analytics & big data
• Retail experience design & marketing

The data science track
-
• Urbanscope
• Big data use for strategic innovation in the public sector
• Supply chain analytics
• Driving business actions through analytics

The Italian way
-
Italy is renowned for its dolce vita, its 2000 year-old archeology, and the depth of its culture, but modern-day Italy has yet more to add to these traditional riches. Whether you specialize in digital marketing or in data science, you will discover the new Italian way: the world's leading authorities in the fields of fashion, design, and furnishing, in gastronomy and wine, or in the automotive industry. You will expand your perspectives and enrich your professional network.


A far-reaching approach to marketing
-
Yesterday's marketing is not dead; it is evolving in step with the humanities and engineering sciences. At the heart of the debate: humans, in all their complexity. A contemporary marketing approach requires an understanding of consumer behavior by considering a brand, a product, or an offer as a stimulus that provokes a response. But which response? In a world overwhelmed by commercial stimuli, how can companies emerge from all this noise and persuade the consumer? How can we invent new ways of creating by and for the customer? How can we build a long and deep relationship of trust, starting from a feeling as short-lived as it is immediate, and transform satisfaction into commitment? Immerse yourself in these questions and find answers to your questions through theory, but above all through practical experience: create your own digital marketing expertise.

And then...?
Set a course for your career!
-
The end-of-study thesis is an analytical project linked to digital marketing and data science, drawing on the professional experience acquired during your end-of-study internship. It makes a major contribution to your personal and professional development. The project will be presented before a board of examiners. You will enter the professional world in full force, highlighting your know-how in terms of skills, expertise, and leadership.
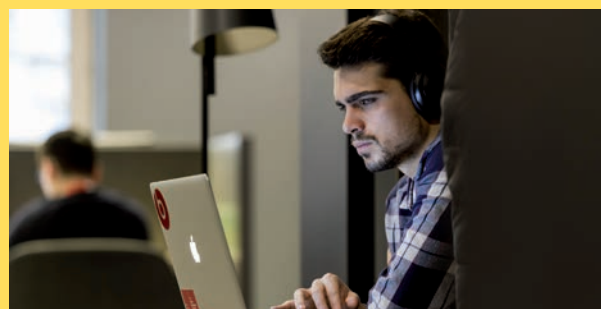
A digital marketing and data science expert? You're the one that companies want!

Your new CV? A digital marketing and data science expert

Your new CV contains some pluses that are highly sought after by companies. You are now a manager capable of designing and implementing digital strategies and responding to market needs. But you will never be caught off-guard when faced with figures, indicators, or analytical methods or techniques. A manager benefitting from two brains in one, as it were... a manager indispensable to today's companies. You should highlight:

- Your expertise in the innovative design and management of digital marketing strategies in a data-rich ecosystem, which will enable you to immediately join a marketing or commercial department
- Your ability to play the role of coordinator and interface between two types of talent essential for companies: business developers and data scientists
- Your perfect versatility enabling you to join a startup, a key account, a marketing / advertising agency, or consulting firm – or to create your own business
- Your B2B and B2C expertise
- Your technical skills: omnichannel, UX, digital technologies, Python and R, machine learning, etc.
- Your international experience

The employability of em**lyon business school** students in the six months following a master's degree is 90%, with an average starting salary of €40/45,000. em**lyon business school** is in the Top 2 French *Grandes Ecoles* in terms of global employability.

Which positions are next?
-

- Digital marketing manager
- Product marketing manager
- Head of digital solutions
- Digital project manager
- Data analyst / Digital analyst
- Business intelligence analyst
- Digital strategy consultant
- Digital transformation consultant or project manager
- Social media manager
- Online media planner
- Web project leader

The companies taking part in the MSc in Digital Marketing & Data Science...
1000mercis, Amazon, AXA, Capgemini, Converteo, Criteo, Facebook, GE, Google, Hilti, IBM, Microsoft, Orange, Saint-Gobain, TF1...

... would like to hire you, as would, among many other emlyon business school recruiters
Accor, Airbus, Air France, Allianz, Alstom, Altran, Apple, Areva, AXA, Barclays, BNP Paribas, Bouygues, Capgemini, Carrefour, CGI, Chanel, Coca Cola, Daimler, Deloitte, EDF, Exxon Mobil, Henkel, HP, HSBC, JPMorgan, Kraft Unilever, L'Oréal, LVMH, Nissan, Nokia, Orange, Philips, Rio Tinto, Schindler, Schneider, Siemens, Société Générale, Sodexo, Sony, SwissLife, Total, UbiSoft, Véolia, Vivendi, Volvo...

The MSc in Digital Marketing & Data Science: *the place to be*
-

Once you have completed every stage of the MSc, you will have mastered the best of both worlds: digital marketing and data science. You will have learnt to take a visionary approach, with a view to both the future and the international horizon. Your expertise will have been forged by a solid fusion of humanities and hard sciences. This convergence is an opportunity to effectively understand human beings, this human 2.0 who has never been so central to business. And you will already have gained a wealth of experience, met many people, and shared many experiences.

You will be ready to set sail on your voyage of professional adventure and personal fulfillment.

So it's up to you to write the next chapter of this Master's degree!

Companies say it best!
-

+ Guillaume Floquet // Chief People Officer // 1000mercis group
-
"We want to maintain and strengthen our long collaboration with em**lyon business school** going forward, in particular by supporting the MSc in Digital Marketing & Data Science.
One of our two founders is a graduate of the school. This connection has never wavered and has strengthened year after year. Each year we recruit several students from emlyon business school. They fit with our identity and our technical needs. We are happy with all of them. We are convinced that we will continue to develop together with emlyon business school by recruiting and training the young talents that our industry needs, both in France and internationally."

+ Guy Bravais // HR Expertise Department // Volvo Group France
-
"We already appreciate the excellent quality of the training courses given by em**lyon business school**, which is one of our main partner schools. Digitalization has a strong impact on our vehicles and on our customers and so we are interested in acquiring new competencies relating to data processing and management. We look forward to working together with you to bring our future recruitment plans and this new program offering closer together."

+ Olivier Blachon // Executive Director Business Development // Visiativ
-
"em**lyon business school**'s MSc in Digital Marketing & Data Science meets a real need for us. Visiativ is a fast-growing business and its current challenge is to recruit young talents with a "dual competency", business and digital, capable of bringing a real plus for our clients to support their transformation. This type of profile is not sufficiently present today and it is clearly a limiting factor for our development. The application of big data in the marketing profession is crucial and is without a doubt the field of application in which our clients most expect graduates to already be trained and operational."

The foundations of excellence
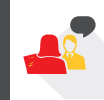
academic excellence
-

- Triple accreditation AACSB, EQUIS and AMBA
- First AERES evaluation: "A" rating
- 7 research centers
- 138 permanent professors, 80 visiting professors, 29 teaching and research assistants, 586 experts
- 10 dual-award degrees for the MSc in Management

excellent job prospects
-

- School founded in 1872 by industrial leaders from Lyon
- 35,000 internship and job offers each year
- 96% of graduates secure a position within 6 months of graduation, and 61% before the end of the program
- 27% of first jobs abroad, 65% in Paris
- 1,600 partner businesses and more than 200 visits to the campus each year
- em**lyon business school** ranked 27th in the Times Higher Education's global university employability ranking – November 2017

global excellence
-

- Campuses in Casablanca and Shanghai
- 83 nationalities, 40% of students from outside France
- 50% of lectures delivered in English, 8 foreign languages taught
- 46% of professors from abroad, representing 19 nationalities
- 160 international exchange agreements
- A network of 29,000 alumni in 118 countries, with 100 key contacts

excellence in diversity
-

- 45 student associations with more than 300 active student participants each year
- Number 1 program for social integration, with 450 mentees receiving support each year under the Multi-campus Multi-district Link scheme
- 40 different sports available on-campus or at partner facilities
- All students become lifelong members of the alumni network upon joining the school
- Cooperation with partners and experts in other disciplines (design, art, science, etc.) both in France and abroad

The application
and selection process

Selecting the right participant is about more than just test scores. At em**lyon business school** we take an applicant's entire potential into account. Motivation, background and clear career goals are equally important. Our application procedure is available from November to July and is based on an online application file.

Requirements
-
- Master's Degree (some exceptions for bachelor degrees)
- A complete record of your academic transcripts
- Optional official Management Aptitude Test Score: GMAT, GRE, TAGE-MAGE or CAT (Common Admission Test)
- English Proficiency Score: TOEFL, IELTS, TOEIC, Bulats or FCE, CAE, CPE
- An online video exercise

Please note that following the review of the duly completed online application (including all supporting documents), the admission board reserves the right to ask for an additional face-to-face interview.

Fees
-
Fees for September 2018 intake: €24,000.

This includes tuition fees, enrollment charges (administrative costs, contribution to the student body, school sports activities and international mobility insurance), and lifelong membership of the em**lyon business school** forever alumni network. Students who do not complete their curriculum by December 2019 will need to pay additional enrollment charges of €500 for the extra year.

Funding
-
Students applying to em**lyon business school** are eligible for funding schemes in a number of different countries, and the school has negotiated preferential agreements throughout the world. Students can also gain additional funding through internships and missions. For further details about funding options, visit the financing section of our website, create your account and ask us for further details.

Studying in Paris:
all the advantages of a state-of-the-art campus

Paris – a romantic city of museums or a global metropolis of 12.5 million inhabitants representing the number one place for business in Europe? Both! Enjoy an unparalleled cultural offering, a unique and unforgettable way of life.

At the heart of the capital, a stone's throw from the European railroad station Gare de Lyon, the em**lyon business school** campus offers you a forward-looking educational approach. With its vast collaborative spaces, it is designed for team working and meetings with managers or researchers. Its technological equipment has been specifically designed to optimize study projects.

At the very center of this philosophy, the maker labs enable students to produce their own creations, and there is also an incubator. You won't find a faculty office here, instead there are production areas! Even the leisure areas can be used as workspaces, mixing comfort, conviviality, and effectiveness.

The byword of your campus: sharing.

emlyon business school
CAMPUSES
-

LYON-ECULLY
23 avenue Guy de Collongue
CS 40203
69134 Ecully cedex - FRANCE
em-lyon.com

SHANGHAI
Asia Europe Business School
155 Tan Jia Tang Road
Minhang District
Shanghai 201199 - PEOPLE'S REPUBLIC OF CHINA
www.em-lyon.com.cn

SAINT-ETIENNE
51 cours Fauriel
CS 80029
42009 Saint-Etienne cedex 2 - FRANCE
bba.em-lyon.com

CASABLANCA
Marina de Casablanca
20000 Casablanca - MOROCCO
casablanca.em-lyon.com

PARIS
15 boulevard Diderot
75012 Paris – FRANCE
paris.em-lyon.com

Visit our campuses on google street view

CONTACTS
-

Website
www.em-lyon.com/marketing-data

www.facebook.com/emlyonbusinessschool
www.facebook.com/emlyon

@emlyon

@emlyonbschool

www.youtube.com/user/emlyon

Information
digital@em-lyon.com
T. +33 (0) 4 72 18 46 91

affiliated to

CCI LYON MÉTROPOLE
Saint-Etienne Roanne

ambassador

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