PERSONAL BRANDING AND JOB HUNTING IN THE ERA OF INDUSTRY 4.0
OPEN EDUCATIONAL RESOURCES FOR TRAINERS AND STUDENTS

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Abstract
The term Industry 4.0, initially referred only to the manufacturing sector, has been progressively extended to the digital revolution which is involving all domains and that is entailing a rapid change of business models, production and work organization. One of the main elements of the industry 4.0 is the ‘automation’ of the production industrial process. But this term refers not only to that process. The hiring process of nowadays companies is also entirely automated. The Internet has replaced traditional job advertisements such as newspaper advertising and the job interviews through a chat tool as Skype have replaced the face to face interviews. The entire process of selection, from the screening of the curriculum, is often completed managed by specific software.
Moreover, the job search process is for the most part supported by Social Networks. The creation and maintenance of an online brand and reputation is therefore becoming central for job seekers.
In this context, the EPBE project main goal is to encourage employment among students and young people through the acquisition of digital skills on job hunting 4.0 techniques and online personal branding using Open Educational Resources. To achieve this goal the EPBE project outputs are targeted to both students and young people (two MOOC courses on “Personal Branding” and “Job Hunting 4.0”), as well as trainers and professors (EPBE Toolkit and train for trainers course on “MOOCs: Methodologies in distance and blended learning”).

Keywords: Hiring process automation, Industry 4.0, Job Hunting 4.0, MOOC, open educational resources (OER), personal branding

The Automation of the Hiring Process
Industry 4.0 - World’s Fourth Industrial Revolution - describes “the organisation of production processes based on technology and devices autonomously communicating with each other along the value chain in virtual computer models” (Smit, Kreutzer, Moeller, Carlberg, 2016).
The German Federal Ministry of Education and research started exploring the possibility to utilize the high level technology to improve the industrial process. So, the term “Industry 4.0” originates from a project in the high-tech strategy of the German government, which promotes the computerization of manufacturing. In particular, the term Industry 4.0 appeared for the first time during the opening ceremony of the Hannover Messe in 2011 by the Professor Wolfgang Wahlster, Director and CEO of the German Research Centre for Artificial Intelligence (Kagermann, Wolf-Dieter, 2011). His speech was related to how companies can be successful in a high wage region with global competition. He also suggested that the Fourth Industrial Revolution that is being driven by the Internet.
As effect of this revolution, people everyday life is changing radically. This changing is represented by the Internet of Things concept, the system of interrelated computing devices, mechanical/digital machines, objects, animals or people that are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction. The term Industry 4.0, initially referred only to the manufacturing sector, has been progressively extended to the digital revolution which is involving all domains and that is entailing a rapid change of business models, production and work organization, and impact on value creation, job requirements and skills. As a consequence, new professions are arising but existing jobs are also going through a modification in the skill sets required to do them, with the consequent need to re-shape education policies to help narrow the widening skills gap.

The Fourth Revolution has also transformed the job search process and is now an integral part of it. The main elements of the Industry 4.0 includes: automation, connection, cloud computing, Internet of Thinks (IoT), Big Data, System Integration (as represented in the picture below).

![Industry 4.0](image)

**Figure 1.** Industry 4.0 main elements, including automation of the hiring process

In particular the automation in the context of the industry 4.0 refers overall to the automation of the production industrial process. But the automation refers not only to that. The hiring process of nowadays companies is also entirely automated.

The most changes of the selection process, compared to the past, are linked to the introduction of Internet, Social Networks and chat tool such as Skype. The internet has all replaced traditional job advertisements such as newspaper advertising and the job interviews through a chat tool as Skype have replaced the face to face interviews. Most companies have their own specific web page on the “Job Opportunities” or “Career”. In order to apply for jobs, job seekers have to apply on line filling in a specific form or simpler clicking a bottom for sending the resumè. On line applications have replaced the hand ones and also the simple sending of a CV by e-mail. Compared to the traditional ones the application on line is very easy, so the number of applications employers receive are significantly increased.

Often the process of selection, from the screening of the curricula on, is completed managed by specific software. Sometimes these software replaced totally the “human” recruiter and it is possible to apply for an open job position without talking to anyone, even by e-mail. The use of these software are helping recruiters who have to manage a huge number of job applications.
The picture below summarizes the main changes of the selection process compared to the past (Source “How organisations should automate the engagement process to keep the talent interested?”, 2017).

Another crucial revolution is the use of Social Networks. Over 93 percent of recruiters use or plan to use social media platforms to support their recruiting effort. Recruiters often decide whether to invite a job candidate for an interview, based on what they discover on his or her social media profiles. As Social Media have become a vehicle for self-branding, building a brand and an online presence allows for individuals to network with others, not only socially but professionally as well. The creation and maintenance of an on line brand and reputation is becoming central for young people who are looking for a job.

Recently, in March and April 2018, news appeared on the main on line newspapers and scientific magazines (Annie Palmer for dailymail.com; Scienza & Tecnica, 2018) about the use of a Robot called “Vera” (developed with the Intelligent Agent Technology) to undertake job interviews in Russian companies such as Ikea, Pepsi and L’Oreal.

Figure 2. Automation of the hiring process

Figure 3. Picture of Robot “Vera”
The robot speaks Russian and English, with a male or female voice stamp, and can also answer questions. Vera contacts the candidates, conducting interviews or by phone or video. Each interview lasts about 8 minutes and Vera can undertake up to 1.500 job interviews per day. The best candidates are addressed to human recruiters, who will have the task of the final choice. The automation of the hiring process entails benefits and disadvantages. Among the benefits there are an easier and faster management of the increased number of applications for companies, that have reduced costs and times for the hiring process. From the other side, this easier way of applying for an opened job position is also easier for job seekers who can applying just pushing a bottom. Some requirements are easily assessed by software such as possessing of credentials (key words match with a specific score), but others, such as the motivation or the ability to get along with customers are not easy to assess using a software.

**THE ROLE OF UNIVERSITIES AND THE EPBE PROJECT**

In this context the role of the education and the higher education institutions is fundamental. It is becoming increasingly central to modernise and enrich academic curricula which should be able to guide students and young people towards the labour markets 4.0, equipping them with the needed skills and knowledge. Thus, the Fourth Revolution entails also the necessity to re-shape education and training policies in a timelier manner to help narrow the widening skills gap. The universities have to face of the high demand of the labour market of new professions and profiles connected to different sectors such as basic and Infrastructure, consumer, energy, Financial Services and Investors, healthcare, Information and Communication Technology, Media, Entertainment and Information (World Economic Forum, 2016). In the picture below are represented the main changes in the job market as reported in the “Future of the Jobs Report” (World Economic Forum, 2016).

**Figure 4.** Future changes in the jobs/professions demands
In this context, with the awareness of the core role of universities in to overcome the Fourth Industrial revolution challenges, it was conceived the EPBE “European Personal Employment for employment” European project [http://epbe.eu/](http://epbe.eu/).

The project idea is to prepare adequately students and young people to tackle the challenges of the labour market in the era of the Industry 4.0 by reinforcing their capacity to successfully apply for an open job position according the current automated hiring process.

EPBE project is a project funded under the European Commission Erasmus+ programme, call Cooperation for innovation and the exchange of good practices – Strategic Partnerships for higher education. It is coordinated by UDIMA - Madrid Open University (Spain) and Marconi University is a project partner together with STePS (Italy), Centre Estudi Prat (Spain), Learning Plans for All - LPIA (Greece), Marak Digital Marketing (Spain), Deloitte (Cypro), Radio 106.5 (Germany).

The EPBE project main aim is to equip students and young people with the needed skills to build up an on-line personal brand and to apply job hunting 4.0 techniques for reinforcing their job search opportunities, and their access to the labor market.

The EPBE learning methodology and educational model are focused on innovative and learner-centred pedagogical approaches which include the promotion and access to Open Educational Resources (OER). To achieve this goal the project has a double target groups: students and young people, with the purpose to allow them to be able to promote his/her self in the market adopting the personal brand and job hunting 4.0 techniques; trainers and professors with the purpose to equip them with the needed competencies to design ad hoc e-contents for students to transfer them the needed skills on job hunting Web 4.0 and personal branding.

The project outputs, targeted to both target groups, includes tools and guidelines, training activities and MOOC and OER (Open Educational Resources) answering to the European Commission priority to “Support the implementation of the 2013 Communication on Opening Up Education” (Communication from the Commission to the European Parliament). In details, EPBE main products for students and young people who are looking for a job are:

- MOOC Course “Personal Branding”
- MOOC Course “Job Hunting 4.0”
EPBE main products for trainers, Higher Education and VET teachers as well as educational institutions that want to create their own online course or educational contents according to the MOOC principles, are:

- Toolkit and Train for trainers course on “Methodologies in distance and blended learning”
- Open Educational Resources (OER)

**MOOC Courses for Students and Young People: Job Hunting 4.0 and Personal Branding**

The EPBE project outputs targeted to students and young people consist of two online MOOC courses on “Personal Branding” and “Job Hunting 4.0”.

The courses are uploaded on the online learning platform Udemy. “Udemy is aimed at professional adults. Unlike academic MOOC programs driven by traditional collegiate coursework, Udemy provides a platform for experts of any kind to create courses which can be offered to the public, either at no charge or for a tuition fee. Udemy provides tools which enable users to create a course, promote it and earn money from student tuition charges” (https://en.wikipedia.org/wiki/Udemy).

In particular, the MOOC course on Personal Branding introduces the personal branding concept and helps participants to learn how to successfully promote the most important brand of all: themselves. Building a unique and authentic personal brand can be an important part of career development and advancement. This comprehensive skills and training course shows you everything you need to know about crafting a personal brand, building an online presence and mastering the job search process.

Personal branding is a concept related to the marketing strategies that a person adopts to promote our self in the market. The main goal of personal branding is to develop one reputation and grow successfully by networking in a way that interests others. The Personal Branding has accelerated in the social networking sites of Web 2.0 (online personal Web sites and social media profiles) as well as the newest concept of Web 3.0 (semantic web revolution) towards the future (already here in the present) 4.0.

In detail, the MOOC course on “Personal Branding” allows participants to:

- Understand the personal branding concept
- Learn how to implement oneself personal branding
- Become familiar with the basics of digital security and online reputation to preserve personal branding
- Learn know to establish the relationship between personal branding and online
- Know more about the personal branding and social media
- Create a system for on-going personal brand maintenance

The course is free and updated on the Udemy platform at the following web address https://www.udemy.com/personal_branding/.
Figure 6. Home page of the course “Personal Branding” on the Udemy platform

The course is structured in 5 Units, as follow:

1. Introduction
2. Self-Knowledge: Personal And Professional Self-Analysis
3. Personal Branding
4. Online Reputation
5. Planning Career and Personal Branding

The first Unit is dedicated to the general ideas about personal branding. The second Unit provides self-assessment skills for a successful personal branding management. The third Unit is highlights the keys aspects of personal branding and how to set the objectives and lever in our strengths to achieve our goals. The fourth Unit describes the online reputation in relation with personal branding. Finally, the fifth Unit analyses the personal branding as a tool for career management.

The course includes video lessons, practical information (examples and case studies) and practical tips (suggestions for practical application of lessons contents).

The second MOOC course targeted to students and young people is entitled Job Hunting 4.0. The course provides students and young people with tools of active job search in the era of Social Networks and web 4.0. It highlights aspects such as the importance of self-knowledge, résumé writing, social media and job hunting, etc. and emphasizes on strategies for active job search.

In detail, the MOOC course on “Job Hunting 4.0” allows participants to:

- take advantages of Internet and social media for job searching
- Understand how to identify appropriate job search sites and apply online
- Become comfortable with vocabulary related to job searching through social media
- Appreciate the social media and Internet’s role in job hunting
- Learn how to get the most out of Internet and social media in job hunting by using both traditional and online resources
- Learn your to protect your personal information and personal branding
The course is free and updated on the Udemy platform at the following web address https://www.udemy.com/job-hunting-40/

![Home page of the course “Job Hunting 4.0” on the Udemy platform](image)

Figure 7. Home page of the course “Job Hunting 4.0” on the Udemy platform

The course is structured in 5 Units, as follow:

1. Getting into Job Hunting 4.0
2. Personal Assessment
3. Social media and job hunting 4.0
4. Resumé in the Era of Job Hunting
5. Managing the job interview

In the first unit, course participants can learn what it is the Job Hunting 4.0. The second unit provides students contents on how to use of self-knowledge and self-evaluation skills. The third unit is focused on social media techniques and job hunting underlining profiles building. The fourth unit introduces techniques to develop a good resume. The fifth Unit includes advices and recommendations on how to tackle a selection process. The course includes video lessons, supporting presentations, practical information (examples and case studies) and practical tips (suggestions for practical application of lessons contents).

The MOOC courses for students and young people on “Personal Branding” and “Job Hunting 4.0” are also promoted by the Placement Office of the Marconi University with a the dedicated page in the web site http://www.unimarconi.it/it/il-servizio-placement.

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**OER and MOOC courses for trainers and professors**

The project outputs targeted to teachers and trainers are the *EPBE Toolkit* and train for trainers course on *MOOCS: Methodologies in distance and Blended Learning.*
The EPBE toolkit http://epbe.eu/product/toolkit is a free repository of information, tools, resources, models, examples, and researches related to the designing and developing of a Massive Open Online Course (MOOC). It is targeted to Higher Education and VET teachers, as well as educational institutions, who wants to create their own MOOC course and/or on line lessons. The toolkit is divided in three parts, as follow:

- How to design (Quality Guidelines EPBE, Handbook EPBE)
- How to develop (Personal Branding MOOC, Job Hunting 4.0 MOOC)
- How to implement (Personal Branding MOOC, Job Hunting 4.0 MOOC, How to create a course on Udemy platform)

As part of the material for higher education and VET teachers there is also the Train For Trainers course blended course on MOOCS: Methodologies In Distance And Blended Learning. It aims to equip participants with the needed knowledge, skills and competencies on pedagogical models, methodologies and practical tools for designing, developing and running a MOOC course. The course is targeted to teachers, VET trainers, higher education lectures. The course methodology is based on the main principles of a MOOC course. It is free and open to a large number of learners. The train for trainers course methodology is based on the Blended learning approach, which includes on line educational resources, a project work and a face to face seminar (Barcelona the 2nd of June 2017).

The online part of the course includes different Open Educational Recourses – OER (https://en.wikipedia.org/wiki/Open_educational_resources ), as follow:

- PRESENTATION SLIDES: introductive aspects and main concepts on MOOCs designing, developing and practical delivering and evaluation.
- VIDEOS: selected videos as video lesson explaining theoretical concepts on MOOC designing, developing and running.
- GUIDELINES/LECTURE NOTES: guidelines and / lecture notes developed in the frameworks of the EPBE project:
  - “Handbook for teachers/trainers” which includes the methodological, didactical and pedagogical options that can be used in creating MOOCS
  - “Quality Guidelines for Personal Brand Production and Job Hunting 2.0”

BIBLIOGRAPHY: selection of international scientific articles on the topics of MOOC and on line education.

PRACTICAL WORK: teachers and trainers participants of the course are required to design an on line course or a lesson for their students according to the requirements of the MOOC models and/or to develop a video lesson of few minutes. Instructions and a template module to fill in are provided as project work materials.

The course is uploaded on the Moodle platform of the EPBE project.
Figure 8. Home page of the train for trainers course on “MOOCS: Methodologies In Distance And Blended Learning” on the Moodle platform of the EPBE project.

The course is divided in the following three Units:

6. how to design a MOOC course
7. how to develop a MOOC course
8. how to implement a MOOC course

A workshop was arranged in Barcelona (2nd of June 2017) as face to face part of the blended course. The workshop is entitled Transmedia for MOOCS and it aims to teach participants on the theories and methodologies of transmedia storytelling, the basic techniques for the production of educational multimedia contents and the skills to apply gamification strategies and transmedia design to Massive Open Online Courses. During the workshop participants can work on the gamification strategies and collaborative storytelling approaches to improve the engagement of students in a MOOC.

The Workshop was lectured by Domenico Morreale, post PhD researcher in sociology of communication at Technology, Communication and Society Department of Marconi University, dealing with research activities and production of transmedia and online audio-visual tools and methodologies. The professor teaching activities are focused on Theories and Languages of new media and Learning and Teaching Technology.

The workshop was divided into four sessions, as follow:

First Session. The first session went deep into the strategies and techniques of transmedia and gamification: methodologies and tools for the complementary and coordinated use of multiple media (video, social networks, pictures) to support a single communication project (lessons of a MOOC). Students were be provided with a basic development kit including template, charts and diagrams used by transmedia producer to develop their projects.

Second Session. The second session is aimed at analysing transmedia projects which represent best practices and good examples in adopting playful strategies, participatory and collaborative storytelling to enhance the teaching and learning of specific subjects.
Third Session. The third session consisted of a small production workshop. Students were be provided with basic skills needed to manage a transmedia project in a MOOC course. How to shoot and edit a short video, how to put it online, how to manage a page on a social network, how to create a gallery and share it on social media.

Fourth Session. In the final session, students, working in small groups, had the chance to design and develop a small transmedia content (a short course to explain a simple concept that makes use of 3 different media – e.g. a Facebook page, a video on YouTube and a Pinterest / Instagram gallery) - used in a complementary manner and engaging students through the collaborative solution of tests and games. Finally the groups presented and discussed their outputs with the class.

Figure 9. Workshop “Transmedia for MOOCS”, Barcelona, 2nd of June 2017
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