

# We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

5,600

Open access books available

137,000

International authors and editors

170M

Downloads

Our authors are among the

154

Countries delivered to

TOP 1%

most cited scientists

12.2%

Contributors from top 500 universities



WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index  
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?  
Contact [book.department@intechopen.com](mailto:book.department@intechopen.com)

Numbers displayed above are based on latest data collected.  
For more information visit [www.intechopen.com](http://www.intechopen.com)



# Equality, Diversity and Inclusion. A MOOC for Academic Purposes

*Rita Bencivenga, Cinzia Leone and Anna Siri*

## Abstract

Since its fifth framework programme (1998–2002), the European Union has promoted gender equality and equal opportunities in the higher education sector and science and technological development. In its current framework programme for research and innovation, Horizon Europe (2021–2027), the EU requires scientists to systematically integrate the concepts of sex, gender and intersectionality into their research paths and to promote equality, diversity and inclusion (EDI) in their working environments. However, for historical reasons, following the EU requirements is challenging, particularly for scientists in STEM disciplines. The University of Genoa is planning a MOOC suited to a large research institution audience to address this problem. The MOOC's targets are researchers, scholars, administrative personnel and students interested in advancing EDI practices in the scientific fields. It enables them to understand the basic principles underlying the gender mainstreaming adopted by the EU and integrate methods and strategies related to sex, gender and intersectionality to progress towards an EDI-sensitive institution. Supported by a learner-centred instructional strategy, this chapter explores the choices related to EDI-sensitive methods and strategies adopted to develop and implement an online education path. Theoretical and practical implications are also discussed.

**Keywords:** equality, diversity and inclusion, EDI-sensitive university, gender equality, higher education, MOOC

## 1. Introduction

It is widely believed that research performing and financing organisations (RPOs and RFOs) should be sensitive to Equality, Diversity, and Inclusion (EDI). The European Union (EU), its Member States and national funding organisations have been taking action to help higher education institutions (HEIs) apply for research funding to include sex/gender, intersectionality, diversity and inclusion analyses in their research and throughout their activities, enabling them to promote EDI within their organisations and in the scientific fields.

However, promoting an EDI-informed learning path and research activities requires the introduction of formal, organisation-focused knowledge and knowledge of cross-cutting topics. The idea of the MOOC originated from a search for EDI-focused online courses that did not reveal resources useful to achieving the learning aims described above. The chapter describes the path towards the creation of the MOOC.

In the following pages, we will begin by outlining the state of the art on the course content (EDI) and the chosen format (MOOC). The following paragraph will briefly outline the theoretical framework relating to the transition from lifelong learning to heutagogy. We will then detail the structure and contents of the course and conclude with a reflection on the relevance of the content chosen for HEIs that intend to continue on the EDI path.

## 2. State of the art

### 2.1 Equality, diversity and inclusion in academia

EDI is a strategic topic for the higher education sector. It impacts institutional culture, research and learning and teaching. In planning and designing the MOOC on EDI, we focused on the most up-to-date documents and strategies, in order to provide the learners with a helpful roadmap in devising policies for higher education and research and in implementing or supporting ideas and actions in their daily activities, as professionals or students.

The creation of the MOOC has been inspired by the favourable moment in equality, diversity and inclusion strategies and policies at EU level and in the academic sector. The EU Gender Equality Strategy 2020–2025<sup>1</sup>, the Strategy for the Rights of Persons with Disabilities 2021–2030<sup>2</sup>, the LGBTIQ Equality Strategy 2020–2025<sup>3</sup> and the EU Roma strategic framework for equality, inclusion and participation for 2020–2030<sup>4</sup> are all part of a Union of Equality to which the European Commission has committed itself, in order to accelerate the process towards equality, diversity and inclusion in Europe.

These documents follow a political path whose main steps are represented by the commitment, in 2015, of EU ministers to promote social inclusion and cultural diversity and foster the education of disadvantaged young people by ensuring that education systems address their needs<sup>5</sup>. A similar commitment, focused this time on the higher education system, was declared by higher education ministers at the Ministerial Meeting of the Bologna Process in 2015, where they agreed to make higher education systems more inclusive<sup>6</sup>. This was reiterated by the European Commission in its 2017 renewed agenda for higher education.

At the academic level, clear indications have been issued by reports and position papers [1–3] that define the best practices and the approaches to follow to progress rapidly and steadily towards more inclusive academia, supporting institutional growth and capacity building to promote the progress and innovation of European

<sup>1</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0152&from=EN>. Last visited on 15 August 2021

<sup>2</sup> [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_21\\_810](https://ec.europa.eu/commission/presscorner/detail/en/ip_21_810). Last visited on 15 August 2021

<sup>3</sup> [https://ec.europa.eu/info/sites/default/files/lgbtiq\\_strategy\\_2020-2025\\_en.pdf](https://ec.europa.eu/info/sites/default/files/lgbtiq_strategy_2020-2025_en.pdf). Last visited on 15 August 2021

<sup>4</sup> [https://ec.europa.eu/info/sites/default/files/eu\\_roma\\_strategic\\_framework\\_for\\_equality\\_inclusion\\_and\\_participation\\_for\\_2020\\_-\\_2030\\_0.pdf](https://ec.europa.eu/info/sites/default/files/eu_roma_strategic_framework_for_equality_inclusion_and_participation_for_2020_-_2030_0.pdf). Last visited on 15 August 2021

<sup>5</sup> Informal Meeting of European Union Education Ministers, 2015, ‘Declaration on Promoting citizenship and the common values of freedom, tolerance and non-discrimination through education’, Paris, France, 17 March 2015. Retrieved on 15 August 2021 from [http://ec.europa.eu/dgs/education\\_culture/repository/education/news/2015/documents/citizenship-education-declaration\\_en.pdf](http://ec.europa.eu/dgs/education_culture/repository/education/news/2015/documents/citizenship-education-declaration_en.pdf)

<sup>6</sup> Education Ministers of EHEA member countries, 2015, ‘Yerevan Communiqué’, EHEA ministerial meeting 2015, Yerevan, Armenia, 14–15 May 2015. Retrieved on 15 August 2021 from [http://www.ehea.info/media.ehea.info/file/2015\\_Yerevan/70/7/YerevanCommuniquéFinal\\_613707.pdf](http://www.ehea.info/media.ehea.info/file/2015_Yerevan/70/7/YerevanCommuniquéFinal_613707.pdf)

society. More recently, in a book promoted by the Council of Europe, it is reaffirmed that, in order to be persuasive, institutional leaders need to understand how to adapt their arguments for diversity and inclusion to different audiences and contexts [4].

Inclusiveness is therefore a strategic question for the higher education sector. It impacts institutional culture, research and learning and teaching. HEIs aim to be more open and inclusive and find new ways to enable people from traditionally less represented backgrounds to participate and progress in their working or learning careers, thus increasing diversity.

Diversity is a condition for excellence, and fairness in competition attracts talent at all levels. Non-diverse research environments are less creative and produce poorer results; diverse learning environments are more stimulating than homogenous ones. To support inclusiveness, HEIs may adopt strategies with high impact potential, such as equity in recruitment practices, mentorship and initiatives to ensure inclusive research and an inclusive work environment.

Since the early 1960s, diversity management has been commonly focused on historically disadvantaged groups such as women and minorities, but the concept of diversity has expanded over time, due to growing awareness about differences. For several years, the focus on gender equality has demonstrated, for example, the existence of a “leaky pipeline” [5] for people who identify as female in academia [6, 7]. The gap in academia is affected by ethnicity and intensifies when reaching senior academic roles [8]. Geographical factors may negatively influence a career path, hindering the publication process [9]. The myth that STEM disciplines represent spaces in which identity does not matter has been shattered by research focusing on lesbian, gay, bisexual, trans and sexually/gender diverse (LGBTQ+) individuals [10].

Currently, sexual and gender diversity, age and other grounds for potential discrimination have become more visible. The grounds for potential discrimination recognised by EU legislation, in the EU Charter for fundamental rights<sup>7</sup>, are sex, race, colour, ethnic or social origin, genetic features, language, religion or beliefs, political or any other opinion, membership of a national minority, property, birth, disability, age or sexual orientation. The challenge is now to monitor these grounds at the academic level to promote EDI. The challenge is facilitated by the focus placed by the European Commission on addressing equality diversity and inclusion in an intersectional [11] perspective, stimulating the progress towards inclusive organisational practices that foster equity across multiple intersecting identities [12].

HEIs are becoming increasingly aware of the fact that “[k]nowledge production and research at universities and research-performing institutions are not as inclusive as they could be.” ([1], p. 19). Current research deals with challenges, climate change, poverty, sustainable food production, which could benefit from broader perspectives, promoting excellence and innovation.

Likewise, global challenges such as climate change adaptation, poverty reduction, sustainable food production and, more recently, the COVID pandemic, will be more effectively addressed with an inclusive agenda in mind, since this expands the range of perspectives brought to bear on these problems. The same thinking can and should be applied to the teaching curriculum at research-intensive HEIs, by making the reading materials and the research used as references more inclusive.

The League of European Research Universities (LERU) has identified five opportunities for universities wishing to promote equality, diversity and inclusion (EDI) to become institutions where anyone with potential can thrive: better reflect and connect local and global challenges; discover and include the most outstanding

<sup>7</sup> <https://fra.europa.eu/en/eu-charter/title/title-iii-equality>. Consulted on 10 August 2021.

talents by reconsidering the definitions of excellence and success in the academic community; fully realise the potential in all staff and students; enhance wellbeing across the institution to the benefit of recruitment, retention and performance, and increase the validity and quality of research results and knowledge production and transfer [1].

## 2.2 Massive online open courses (MOOC)

Massive Open Online Courses (MOOCs) have developed rapidly and now play a leading role in achieving a “universal” model of education [13–15]. Dave Cormier, University of Prince Edward Island, coined the term Massive Open Online Courses (MOOCs) in 2008, following an early experiment in activating an online course entitled “Connectivism and Connective Knowledge”, taught by Professors George Siemens and Stephen Downes [16].

According to Bates [17] and Hayes [18], a MOOC (Massive Online Open Course) can be defined as a product for teaching:

- Capable of providing a structured learning path that includes a syllabus and explicit learning objectives, materials and activities to support learning, an assessment system based on quizzes, exercises or projects, a certification process.
- Accessible through an online platform.
- Designed and managed to be enjoyed by many people [19].
- Built for free participation, i.e., without binding prerequisites and without requiring membership of a particular institution or costs for participation [20].

These characteristics imply that a MOOC should not be a repository of Open Educational Resources (OER), or a so-called blended course (although a blended course may also make use of a MOOC), or even a pathway that has a limited number of enrollees or prohibited access to specific categories of people [21].

Those who benefit most from this new model of education are mainly those who, for various reasons, have difficulty following traditional models of education.

Over the years, web platforms providing distance learning through MOOCs have multiplied, and the number and type of content creators have also increased, gradually including important international academic institutions [22, 23].

In the beginning, the first MOOCs had a solid and deep collaborative philosophy (cMOOCs), with a constructivist-connectivist slant, in which participants played an active and predominant role over that of the teacher, who became a facilitator [24].

This philosophy then evolved into a commercial model (xMOOCs) with a delivery-instructionist slant, more widespread and implemented by large institutions (mainly major US universities such as MIT, Harvard, Stanford), carrying on a more traditional model of education, based on video-recorded lectures [25].

However, more recent research has shown that this distinction is no longer feasible, due to the increasing overlap between these two extremes [26, 27].

In Italy, use of MOOCs has been spreading at an increasing rate, driven by the simultaneous growth of the phenomenon of so-called “telematic universities” [28] and the creation of EUDOPEN, a platform for the delivery of defined courses by a network of Italian universities and bodies/associations/networks of scientific and cultural importance **Figure 1**.



**Figure 1.**  
*EduOpen platform.*

However, it must be highlighted that, while indicated as a resource capable of increasing access to quality education [29], certain aspects of MOOCs have been criticised, especially the difficulties associated with assessment based predominantly on multiple-choice questionnaires [30, 31], poor interaction with participants [32, 33], failure to meet instructional design criteria [30, 34] and use of technology that is not accessible or user-friendly [30].

It is therefore crucial to incorporate pedagogical, didactic, organisational, communicative and technological features that - in the perception of participants and teachers or through the analysis of best practices - result in a “high-quality” MOOC “[35–39].

The literature on the topic is extensive [40].

Learning design for MOOCs seems to follow specific approaches, given that the audience for which they are intended requires a different instructional design than one that works for a defined number of students. Indeed, since anyone with an internet connection can sign up for a MOOC, faculty staff cannot offer personalised support to every student. Consequently, the instructional design of a type of learning that must necessarily be self-regulated is a topic that must be considered carefully.

In creating the MOOC, we will follow the guidelines and reflections for evaluation proposed by the Conference of Italian University Rectors [39], as well as the checklist for verifying the quality of the MOOC case study, divided into the following six macro-environments:

#### 1. MOOC STRUCTURE AND SYLLABUS.

#### 2. TEACHING MATERIALS.

#### 3. ONLINE LEARNING ACTIVITIES.

- a. Asynchronous/synchronous peer-to-peer online learning activities.
- b. Asynchronous/synchronous online teaching activities with staff/faculty.
- c. Non assessed online learning activities.

#### 4. ASSESSMENT OF LEARNING.

- a. Quizzes.
- b. Assignments.

5. TUTORING, MONITORING AND COMMUNICATION.

6. LEARNING MANAGEMENT SYSTEM (LMS) FEATURES.

Concerning the recognition of CFUs, reference is made to the Guidelines in force in Italy according to Art. 4, paragraph 4, of Ministerial Decree no. 47 of 30 January 2013 (as amended), promoted and adopted by ANVUR (National Agency for the Evaluation of the University System and Research).

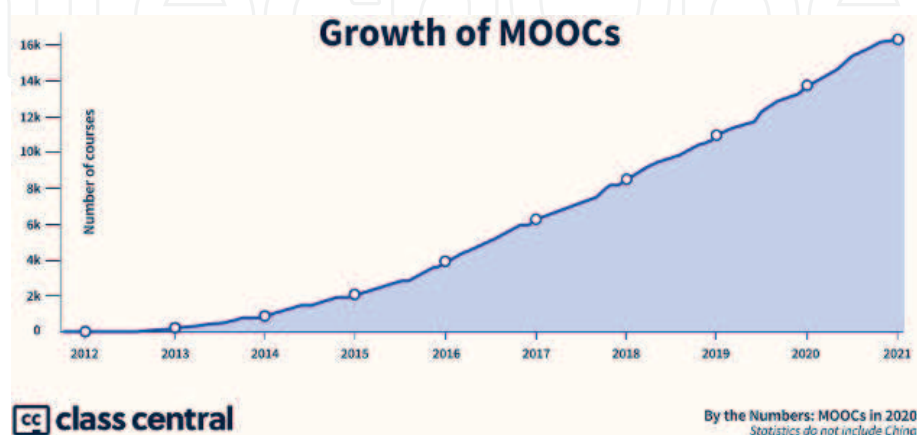
To calculate the CFUs deliverable through a MOOC, CRUI [41] points out that:

- Each recognised CFU corresponds with at least six hours of online teaching activity (e.g., actual duration of multimedia materials + Interactive learning activity).
- The online teaching activity can be calculated based on the actual duration of the video/interactive materials multiplied by two, adding the estimated duration of the planned online activities.
- The calculation does not include study materials (e.g., textbooks, articles, web resources and others), which are instead considered as part of the student's study time, with at least nineteen hours per CFU.

The forced digitization we are experiencing due to the COVID19 pandemic has pushed academic institutions around the world to focus on MOOCs (Massive open online courses) to strengthen their educational offer and encompass inclusion, quality and sustainability **Figure 2**.

The success of the formula success, at least quantitatively speaking, is confirmed by the numbers: over 180 million enrolled students and 950 universities at the beginning of 2021 (almost double the number of a year earlier), over 16 thousand free online courses on the leading international platforms.

The main trends in the development of MOOCs today can be grouped into the following three: the institutionalisation of degrees based on MOOC offerings, the concentration in oligopolies of MOOC distribution platforms, and the development of professionalising forms of accreditation for the lifelong market. This paper focuses precisely on this third point.



**Figure 2.**

*By the numbers: MOOCs in 2020 (Source: Class Central: <https://www.classcentral.com/report/mooc-stats-2020>).*

### **3. Theoretical framework: lifelong learning and heutagogy**

Lifelong learning is considered a crucial element for individual growth and human development, a valuable opportunity to develop and maintain one's skills [42]. The emergence of this subjective right to lifelong learning implies a rethinking of training processes to enhance skills, abilities and knowledge (cognitive, experiential, relational, technical) related to a life project [43]. Following Dewey [44], education and training are located within a "hidden" process of formation that stimulates permanent attitudes and interests, i.e., lasting mental and emotional habits. In this sense, education is a process of construction, identification and enhancement of different identities that continues throughout a lifetime (lifelong learning). It takes place in different environments of training and experience (lifelong learning). It acquires the value of deep learning (life-deep learning) when it is cognitively and emotionally consolidated, allowing us to communicate with ourselves and with others, regardless of different values (cultural, moral, ethical, social, religious, etc.).

Putting everyone in a position to have equal rights and opportunities for lifelong learning, regardless of their social, cultural and geographic background, is a challenge that enables everyone to participate effectively and with information as citizens in social and political life.

The turning point can come about if training does not focus solely on the acquisition of skills functional to the profession but also addresses the typical tasks of an adult in the various social contexts. An educational policy based solely on a traditional educational model no longer has any meaning or usefulness today. Learning today means living a plurality of experiences, in which everyone recognises themselves and takes direct responsibility for learning, deciding what, how, where and when to learn.

To address the many unprecedented challenges in the cultural, social and professional lives of individuals and modern societies, a new approach to human development must be promoted, a "progression from pedagogy to andragogy to self-regulation, with learners likewise progressing in maturity and autonomy" [45].

The shift from andragogy to heutagogy expands on the self-directed learning practices of andragogy and involves trainees taking an active role in developing their own learning skills to meet their own needs [46–48]. The core of heutagogy is the principle of learner agency [49], and two additional principles are self-efficacy (learner's perception of their understanding of concepts and ability to apply and carry out specific tasks) and capability (develop their capacity to perform these tasks in new and unique environments).

Heutagogy builds on previous theories such as self-directed learning, humanism, capability, constructivism and self-regulation and self-determination [50–52].

It encourages the development of skills of autonomy and exploration, reflection and critical thinking, and innovation and entrepreneurship. It provides opportunities to develop students' self-directed, self-determined and lifelong learning skills, which are critical skills in online learning contexts, and the possibilities of theory align closely with those offered by technology [50–55].

Learners choose their training path by reflecting on their own strengths and weaknesses and exploring new strategies that fit their learning style. Such a process of self-reflection allows for double-loop learning, where the learner is put in a position to evaluate the effectiveness of their problem-solving strategies, evaluate alternative learning resources to activate [56] and their actions along with the beliefs acted upon [57].



Heutagogy has been found to be effective in blended and online learning [52, 55, 57–60]. It is a net-centric theory [61–63], and its intersection with technology is likely to stimulate the definition of one's own learning path, the ability to create one's own content, the ability to seek and explore sources of knowledge, to connect and collaborate with others, to reflect on new information and knowledge and to share one's work [54, 64].

The availability and accessibility of technology solutions enable and facilitate access to educational resources, learning communities and global knowledge exchange. Examples include OERs, Open CourseWare and MOOCs [65].

In addition, social media [52, 57], community-based learning [57], the use of e-portfolios [64] and mobile learning [66] are other technology-supported learning contexts that meet the heutagogical approach.

In this framework, the meaning of training processes is reformulated to integrate certain trends aimed at effectively fostering:

- access to personalised paths based on prior knowledge and objectives to be achieved (Personalised Learning).
- socially-based interactive learning that stimulates the sedimentation of knowledge, while providing an open and flexible pathway, supported by online technologies (Interactive/Social Learning) [47, 49, 67].
- access to experiences concerning one's personal and professional learning and updating needs (Self-regulated learning and employability).

The possibilities offered by new technologies allow for the enhancement of the heutagogical perspective, as they allow for student-generated content and promote active engagement in the learning process through collaboration and self-reflection, engaging in double-loop learning [68].

Within this framework, heutagogy aligns with lifelong learning, as highlighted in the European Framework for Personal, Social and Learning to Learn Key Competence (LifeComp) [69] and the European Framework for the Digital Competence of Educators (DigCompEdu) [70], meaning that this approach is capable of developing competences for continuous learning.

## **4. Developing the MOOC: equality of opportunities, diversity of representation: towards an equality, diversity and inclusion (EDI) sensitive university**

### **4.1 The wider context**

The MOOC is being created within a Horizon 2020 project entitled GenderEX: Gender for Excellence in Research. GenderEx is coordinated by the Kadir Has University Gender and Women's Studies Research Center. The project aims at exchanging knowledge and engaging best practices to stimulate the integration of the Sex and Gender Dimension in Research Content. Three leading international educational institutions are members of the GenderEX partnership: University of Lund (Sweden), University of Genoa (Italy) and Technological University Dublin (Ireland). The overall aim of GenderEX is to further the adoption of a sex/gender dimension in all areas of research and across multiple scientific disciplines in Turkey by enhancing the capacity of GWSRC-KHAS for training and engaging more researchers into this field, with a primary focus on Early-Stage Researchers (ESRs).

Since the Horizon Europe framework programme adopted an intersectional approach to research and innovation, GenderEX has added this aspect in its activities, in order to equip the participants with the most updated scientific perspectives. The perspective of the MOOC is therefore widened to encompass an EDI approach.

## 4.2 Methodology and architecture

Creation of the MOOC was divided into three phases: secondary and primary research, followed by synthesis and implementation.

Secondary data were collected through several activities, summarised in **Table 1**. A specific search for MOOCs promoting EDI was not limited to the EU. No MOOCs specifically addressing how to promote EDI in academia were found. The team involved in creating the MOOC learning content was formed of experts in gender and EDI-related issues, science and technology. The FIAGES project, focusing on promoting gender equality in STEM academic disciplines and ICT companies, provided a review of the existing learning resources produced by public and private organisations involved in EU projects in the 7th and 8th framework programmes (FPs). The FIAGES project has contributed to the creation of an online course [71], the content of which has been used as a model for the parts of the MOOCs relating to gender issues.

The primary research activities consisted of discussions within the MOOC working group during weekly partners' online meetings (due to the restrictions imposed by the COVID pandemic).

The total duration of the meetings and the selection process was thirty-five hours. Five meetings with the local team (from two to two and a half hours each) made it possible gradually to include secondary research data and search for new or different information to fill in the gaps.

Secondary and primary data enabled the team to draft the MOOC contents and learning experiences (summarised in **Table 1**). The MOOC team held weekly review meetings to consider the emerging secondary and primary research results, reframe content, where necessary, and avoid repeating information that could be sourced elsewhere. The main task was to bear in mind constantly that the information is aimed at higher education staff and students with no previous knowledge or experience in gender studies or EDI theory and practices. The theoretical aspects were therefore kept to a minimum and links to external sources were used to allow those interested to explore theoretical aspects. Over five such meetings, the MOOC team developed and refined a first draft of the MOOC modules. This draft was circulated to UNIGE staff, GenderEX partners and external experts, selected for their critical views of gender equality, diversity and inclusion studies.

## 4.3 Target groups and learning objectives

The course is aimed at researchers and students in academic and other research institutions. In addition, it should be of particular interest to Gender Equality

Primary research	Secondary research
Discussions within GenderEX partnership	Literature review
Meetings with external experts	EU reports and legislation
Team meetings	Examples and models
Internal testing	Comparable examples from other sectors

**Table 1.**  
*Methods used to select and organise the contents.*

Plan (GEP) and EDI team members and Gender equality/EDI equality/diversity officers / focal persons.

The course is particularly suitable for middle managers aiming to start the path towards institutional change and for administrative personnel.

In fact, the MOOC aims to bridge the gap between gender experts and human resources officers, in order to pursue synergies and improve the integration of EDI tools and considerations into decision-making processes.

#### 4.4 Course highlights, learning objectives and outcomes

The MOOC guides participants in becoming more EDI-sensitive in their working and learning activities in an HEI context. EDI is still often interpreted as a mere numerical balance of research participants, but cultural transformation leading to structural change is necessary to achieve gender equality, respect for diversity and inclusion.

Structural change needs to involve EDI-sensitive institutional processes and strategies and requires a vision of equality at individual and organisational levels that crosses disciplinary boundaries and engages with a variety of theoretical perspectives. Institutional and structural interventions challenging behaviour, attitudes and cultures are pivotal in achieving EDI in a broad sense.

The MOOC is based on an inventory and review of existing content provided by the EU and by international organisations, the results of previous projects focused on equal opportunities, gender equality, diversity and inclusion, a review of the scientific literature and the professional experience of the team members.

The introduction and the three modules include videos, texts and quizzes, and the learner is asked to perform tasks that apply the content to real cases. Other resources include links to external websites, videos, podcasts, reports and scientific resources.

The learning objectives of the MOOC, in terms of demonstrable skills and knowledge that will be acquired by the participants, are:

- Knowledge of university policies and infrastructure on EDI, as promoted by the EU and by its European Universities Initiative
- Familiarisation with Gender Equality Plans, Equality Committees (Comitati Unici di Garanzia - CUG) and Positive Action Plans (Piani di Azione Positivi – PAP)
- Understanding and learning to apply key achievements and indicators of EDI policies and actions
- Awareness of the importance of an “EDI-sensitive” academia
- Familiarisation with EU-funded gender equality, diversity and inclusion projects and their potential impact on students’ careers
- Awareness of the critical problems regarding gender in Research and Innovation
- Knowledge of the main EU policy frameworks and priorities to promote gender equality in research and innovation and of the new requirements introduced by Horizon Europe

At the end of the course, participants will have acquired the skills to strengthen EDI engagement in the governance of their institution or in their working or learning activities.

Through a deep immersion in the extensive learning material, at the conclusion of all the activities, the participants will receive a certificate of completion from the university sponsoring the course if they complete the online lessons, pass the module quizzes, view all course lectures and complete the course survey.

#### **4.5 Format and organisation**

The MOOC materials are based on an inventory and review of documents issued by the EU, the results of EU gender equality and diversity projects, the scientific literature in the field and the professional experience of the team members. It focuses on the more relevant topics to promote participants' awareness and knowledge of EDI in academia.

The online course hosted by the EduOpen platform (<https://www.eduopen.org/>), the first Italian portal of free university courses open to all [72], consists of four content modules. Firstly, the Introduction module will provide an explanation of the key issues and concepts of an EDI-sensitive academia. It offers the theoretical background and the EU support to higher education and research institutions. The participants will understand the links among EDI, the EU Union Equality concept and strategy and Sustainable Development Goal (SDG) no. 5, "Achieve gender equality and empower all women and girls" of the 2030 United Nations Agenda.

The first module, *Highlights of university policies and infrastructure on EDI as promoted by the EU and by its European Universities Initiative*, will explore reports and documents issued at institutional level. Gender equality is mentioned as early as 1957 in the founding Treaty of the European Economic Community (EEC). It is important to become familiar with the steps leading to the current perspectives and expectations about EDI. The module stimulates the debate on the scientific literature that has analysed the opportunities created and the obstacles faced in implementing them and uses illustrative case studies.

In the second module, Equality Committees (Comitati Unici di Garanzia - CUG) and Positive Action Plans (Piani di Azione Positivi – PAP), Gender Equality Plans, participants will learn about the different approaches to EDI at in different countries. While GEPs are mandatory by law in some, a softer approach allows universities to progress at individual level in others. The impact of the new Horizon Europe requirement for public organisations applying for funding to have a formal GEP will be discussed. The strategies adopted to satisfy this requirement and the risks of turning this into a box-ticking exercise will be analysed.

Lastly, the module on *Policies on EDI, their key features, relevance for students* highlights the key achievements and indicators of EDI policies and explains the connections between gender and the UNIGE Ulysses, Milieu and GenderEX projects and their potential impact on UNIGE, its staff and students. More specifically, through this module, the participant will learn to interpret an EU-funded project addressing EDI topics and understand the strategies applied to adopt an overarching approach and to embed it in the complex set of follow-up activities, ranging from communication to dissemination, exploitation and evaluation. The participants will also learn how to contribute to the progress towards EDI through their individual role in the academic community.

The first edition of the EDI-focused MOOC course equips the participants with a set of multimedia learning tools.

For each module, 10-minute video-lectures, reports and scientific resources, key messages slides, reading materials, support through "Frequently Asked Questions

clinics” and quizzes and assignments to monitor progress (multiple choice) are available. These can be taken in the participants’ own time once they have registered for the MOOC.

Each module takes an average of two to three hours to complete and the course is based around a calendar of activities normally lasting four weeks.

The MOOC contents will be in English; some parts of the MOOC will, however, also be available in Italian, to assist participants who do not speak English. Where documents or reports are available in numerous languages (as is the case for many EU documents), links will be available to the multilingual repositories.

The participants are invited to submit questions through the course website. The most relevant questions will be answered by the team in the three virtual clinics. The FAQs and answers will thus become part of the MOOC and will be useful to future participants.

The material will be updated once a year or upon notification of broken links, new relevant documents and other important changes.

After completing the course, all participants will receive a certificate of attendance. The MOOC will be online by the end of 2021, and only formal assessment will enable us to understand its user-friendliness and effectiveness, through self-assessment and e-assessment.

## **5. Conclusion**

The purpose of this case study was to describe the underlying strategies and choices for the design and implementation of the MOOC.

The current coronavirus pandemic sets several new challenges for the entire international community, and there is a growing need for MOOC curricula to be interdisciplinary. At the same time, the role of MOOCs in education, particularly non-formal and informal education, is growing in these turbulent times, due to the current heavy reliance on online communication and learning.

They represent the learning format that seems to best meet the expectations of education (formal, non-formal and informal) as they are inclusive, accessible and equitable.

The broader context of the MOOC is the GenderEX project co-financed by the EU, in which four partners activate a robust exchange of information to promote the integration of the sex and gender dimension into research and to engage in best practices together with international partners.

At the basis of the MOOC planning, there is the awareness that policies aimed at promoting equality, diversity and inclusion (EDI) in academia lead to improved personnel and students’ retention and satisfaction, as well as discovery, integration, application and dissemination of knowledge.

Academic excellence cannot be pursued without providing support to everyone involved, irrespective of gender, race, ethnicity, religion, age, social class and other factors, allowing them to embrace a diverse range of interests, abilities and life experiences that will enhance the exploration of ideas vital to the academic mission.

Integrating the gender equality, diversity and inclusion (EDI) dimensions into academia contributes to more inclusive scientific and innovation processes and ensures people from underrepresented groups are included, remain visible and feel supported and valued.

In recent years, thanks also to the initiatives organised by the European Union, HEIs have established diversity guidelines and policies underlined by the commitment to academic excellence and inclusiveness and equal opportunities.

The MOOC described in this chapter aims to share best practices in EDI, and equality policies and strategies implemented at the academic level in Europe, allowing the participants to understand the roles they may have in benefiting from these policies in their professional activities and in promoting their implementation and progress actively.

The study responds to the need to train all those working or studying in the higher education sector on EDI and gender mainstreaming, – for which there is scattered online information requiring a significant amount of time to understand the process involved. The difficulty in identifying and using sound sources discourages people interested in learning about EDI-related issues: they are confronted with concepts outside of their academic learning paths and with the multidisciplinary nature of the gender studies field. The MOOC enables learners to follow a clear path, guiding them in applying EDI principles to all aspects of their research, from the initial idea to the dissemination and exploitation phase, and in achieving better gender equality in their working environments.

## Acknowledgements

The GenderEX project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 952432. The opinions expressed in this chapter reflect only the authors' view and in no way reflect the European Commission's opinions. The European Commission is not responsible for any use that may be made of the information it contains.

## Conflict of interest

The authors declare that they have no conflict of interest.

## Author details


Rita Bencivenga<sup>1\*</sup>, Cinzia Leone<sup>1</sup> and Anna Siri<sup>2</sup>

<sup>1</sup> University of Genoa, Italy

<sup>2</sup> UNESCO Chair in Anthropology of Health, Biosphere and Healing Systems, University of Genoa, Italy

\*Address all correspondence to: [rita.bencivenga@unige.it](mailto:rita.bencivenga@unige.it)

## IntechOpen

© 2021 The Author(s). Licensee IntechOpen. This chapter is distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/3.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. 

## References

- [1] Buitendijk S, Curry S, Maes K. Equality, diversity and inclusion at universities: the power of a systemic approach. LERU position paper. Leuven; 2019
- [2] Claeys-Kulik A-L, Ekman JT. Universities' Strategies and Approaches towards Diversity, Equity and Inclusion. Examples from across Europe. Brussels; 2018
- [3] Claeys-Kulik A.-L. C, Jørgensen T. E., and Stöber, H. Diversity, Equity and Inclusion in European Higher Education Institutions: Results from the INVITED Project. Brussels; 2019
- [4] Bergan S. and Harkavy I., Eds., Higher education for diversity, social inclusion and community, no. 22. Strasbourg, 2018.
- [5] Berryman S., "Who Will Do Science? Trends, and Their Causes in Minority and Female Representation among Holders of Advanced Degrees in Science and Mathematics. A Special Report," A Spec. Rep. Rockefeller Found., p. 148, 1983, [Online]. Available: <http://files.eric.ed.gov/fulltext/ED245052.pdf>.
- [6] Martinez ED et al. Falling off the academic bandwagon. Women are more likely to quit at the postdoc to principal investigator transition. *EMBO Rep.* 2007;8(11):977-981. DOI: 10.1038/sj.embor.7401110
- [7] European Commission. She Figures 2018. Luxembourg: Publications Office of the European Union; 2019
- [8] Bhopal K. Gender, ethnicity and career progression in UK higher education: a case study analysis. *Res. Pap. Educ.* 2020;35(6):706-721. DOI: 10.1080/02671522.2019.1615118
- [9] Thaler K et al. Inadequate use and regulation of interventions against publication bias decreases their effectiveness: A systematic review. *J. Clin. Epidemiol.* 2015;68(7):792-802. DOI: 10.1016/j.jclinepi.2015.01.008
- [10] Boustani K, Taylor K. Navigating LGBTQ+ discrimination in academia: where do we go from here? *Biochem. (Lond)*. 2020;42(3):16-20. DOI: 10.1042/BIO20200024
- [11] Crenshaw K., "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics," *Univ. Chic. Leg. Forum*, vol. 1989, no. 1, 1989, [Online]. Available: <http://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8>.
- [12] Carbado DW, Gulati M. The intersectional fifth black woman. *Du Bois Rev. Soc. Sci. Res. Race.* 2013;10(2):527-540
- [13] UNESCO. Forum on the Impact of Open Courseware for Higher Education in Developing Countries: Final Report; UNESCO (CI-2002/CONF.803/CLD.1): Paris, France, 2002. <http://unesdoc.unesco.org/images/0012/001285/128515e.pdf>
- [14] UNESCO. 2012 Paris OER Declaration; UNESCO: Paris, France, 2012; Available online: [www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/Events/Paris%20OER%20Declaration\\_01.pdf](http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/Events/Paris%20OER%20Declaration_01.pdf).
- [15] Lorrie Schmid, Kim Maturuk, Ian Simpkins, Molly Goldwasser & Keith E. Whitfield (2015) Fulfilling the promise: do MOOCs reach the educationally underserved?, *Educational Media International*, 52:2, 116-128, DOI: 10.1080/09523987.2015.1053288
- [16] Cormier, D., Siemens, G. (2010). The open course: Through the open door--open courses as re-search,

learning, and engagement. *Educause Review*, 45(4), 30 (2010).

[17] Bates, T. (2014), *Teaching in the Digital Age*. <https://opentextbc.ca/teachinginadigitalage/>

[18] Hayes, S. *MOOCs and Quality: A Review of the Recent Literature*; QAA: Gloucester, UK, 2015; Available online: [http://publications.aston.ac.uk/26604/1/MOOCs\\_and\\_quality\\_a\\_review\\_of\\_the\\_recent\\_literature.pdf](http://publications.aston.ac.uk/26604/1/MOOCs_and_quality_a_review_of_the_recent_literature.pdf).

[19] Chapman SA, Goodman S, Jawitz J, Deacon A. A strategy for monitoring and evaluating massive open online courses. *Evaluation and Program Planning*. 2016;57:55-63

[20] DeBoer, J., Ho, A. D., Stump, G. S., & Breslow, L. (2014). Changing “course”: Reconceptualizing educational variables for massive open online courses. *Educational Researcher*, 43(2), 74-84.

[21] Stracke CM, Downes S, Conole G, Burgos D, Nascimbeni F. Are MOOCs Open Educational Resources? A literature review on history, definitions and typologies of OER and MOOCs. *Open Prax*. 2020;11:331-341

[22] Chatti, M. A., Yousef, M. F., Schroeder, U., Wosnitza, M. (2014), What Drives a Successful MOOC? An Empirical Examination of Criteria to Assure Design Quality of MOOCs, in Proceedings of 2014 IEEE 14th International Conference on Advanced Learning Technologies.

[23] Peters, G., Seruga, J. A supply sided analysis of leading MOOC platforms and universities. *Knowledge Management & E-Learning: An International Journal*, 8(1), 158-181 (2016).

[24] Wang Z, Anderson T, Chen L, Barberà E. Interaction pattern analysis in cMOOCs based on the connectivist

interaction and engagement framework. *Br. J. Educ. Technol*. 2017;48:683-699

[25] Stracke CM, Downes S, Conole G, Burgos D, Nascimbeni F. Are MOOCs Open Educational Resources? A literature review on history, definitions and typologies of OER and MOOCs. *Open Prax*. 2020;11:331-341

[26] Veletsianos G, Shepherdson P. A systematic analysis and synthesis of the empirical MOOC literature published in 2013-2015. *Int. Rev. Res. Open Distrib. Learn*. 2016;17:198-221

[27] Zawacki-Richter O, Bozkurt A, Alturki U, Aldraiweesh A. What research says about MOOCs—An explorative content analysis. *Int. Rev. Res. Open Distrib. Learn*. 2018;19:242-259

[28] Pozzi, F., Conole, G. Quale futuro per i MOOC in Italia? *TD Tecnologie Didattiche*, 22(3), 173-182. (2014).

[29] Clair RS, Winer L, Finkelstein A, Wald S, Finkelstein A, Fuentes-steeves A. Big Hat and No Cattle? The implications of MOOCs for the adult learning landscape. *The Canadian Journal for the Study of Adult Education*. 2015;27(3):65-82

[30] Lowenthal P & and Hodges C: *International Review of Research in Open and Distance Learning*, 16 (5) (2015), pp. 1-8.

[31] Kursun, E. (2016). Does Formal Credit Work for MOOC-Like Learning Environments? *The International Review of Research in Open and Distributed Learning*, 17 (3), 75-91. <http://dx.doi.org/10.19173/irrodl.v16i5.2222>

[32] Walker L. and B. Loch *INNOQUAL-International Journal for Innovation and Quality in Learning*, 2 (3) (2014), pp. 53-63.

[33] Chapman, Sarah & Goodman, Suki & Jawitz, Jeff & Deacon, Andrew.



- (2016). A strategy for monitoring and evaluating massive open online courses. *Evaluation and Program Planning*, 57, 55-63. [10.1016/j.evalprogplan.2016.04.006](https://doi.org/10.1016/j.evalprogplan.2016.04.006).
- [34] Margaryan, A., Bianco, M., & Littlejohn, A. (2015). Instructional quality of massive open online courses (MOOCs). *Computers & Education*, 80, 77-83. <https://doi.org/10.1016/j.compedu.2014.08.005>
- [35] Wright C.R., Criteria for evaluating the Quality of Online Courses, Alberta Distance Education and Training Association, 2003.
- [36] Ehlers, U.-D. (2004). Quality in e-Learning from a Learner's Perspective. *European Journal of Open, Distance and E-Learning (EURODL)*, 7 (1).
- [37] Ehlers, U.-D. 2012. Quality Assurance Policies and Guidelines in European Distance, and E-learning In I Jung & C. Latchem (Eds.), *Quality assurance and accreditation in distance education and e-learning*, pp. 79 -90. New York: Routledge.
- [38] Ehlers U-D. *Open Learning Cultures. A Guide to Quality, Evaluation, and Assessment for Future Learning*. Berlin, Heidelberg: Springer; 2013
- [39] Conole, G. (2013), MOOCs as disruptive technologies: strategies for enhancing the learner experience and quality of MOOCs, *Revista de Educación a Distancia*, vol 39, pp 1-17, available at: [www.um.es/ead/red/39/conole.pdf](http://www.um.es/ead/red/39/conole.pdf)
- [40] Stracke, Christian M., and Giada Trisolini. 2021. "A Systematic Literature Review on the Quality of MOOCs" *Sustainability* 13, no. 11: 5817. <https://doi.org/10.3390/su13115817>.
- [41] Conferenza dei Rettori delle Università italiane - CRUI (2017). Progetto MOOCs Italia. Linee guida nazionali per la predisposizione di MOOCs di qualità erogati dalle Università italiane. Available at the webpage: [https://www.cruitalia.it/images/1-\\_LineeGuidaMOOCsItalia\\_aprile2017.pdf](https://www.cruitalia.it/images/1-_LineeGuidaMOOCsItalia_aprile2017.pdf).
- [42] Ehlers U-D, Kellermann SA. Future skills: The future of learning and higher education. Results of the International Future Skills Delphi Survey: Baden-Wurttemberg Cooperative State University; 2019 <https://bit.ly/2WogLKv>
- [43] Whiting, K. (2020). These are the top 10 job skills of tomorrow— And how long it takes to learn them. *World Economic Forum*. <https://www.weforum.org/agenda/2020/10/top-10-work-skills-of-tomorrow-how-long-it-takes-to-learn-them>.
- [44] Dewey J. *Experience and education*. New York: Macmillan; 1938
- [45] Canning, N. (2010). Playing with heutagogy: Exploring strategies to empower mature learners in higher education. *Journal of Further and Higher Education*, 34(1), 59-71.
- [46] McAuliffe, M., Hargreaves, D., Winter, A., & Chadwick, G. (2008). Does pedagogy still rule? In *Proceedings of the 2008 AAEE Conference*, December 7-10, 2008. Yeppoon, Queensland. [http://www.engineersmedia.com.au/journals/aaee/pdf/AJEE\\_15\\_1\\_McAuliffe%20F2.pdf](http://www.engineersmedia.com.au/journals/aaee/pdf/AJEE_15_1_McAuliffe%20F2.pdf)
- [47] Hase, S. (2009). Heutagogy and e-learning in the workplace: Some challenges and opportunities. *Impact: Journal of Applied Research in Workplace E-learning*, 1(1), 43-52. DOI: 10.5043/impact.13
- [48] Snowden M, Halsall JP. Self-determined approach to learning: A social science perspective. *Cogent Education*. 2016;3(1):1247608 <https://doi.org/10.1080/2331186X.2016.1247608>

- [49] Hase, S., & Kenyon, C. (2000). From andragogy to heutagogy. In UltiBase Articles. <http://ultibase.rmit.edu.au/Articles/dec00/hase2.htm>
- [50] Blaschke, L. M., & Hase, S. (2019). Heutagogy and digital media networks: Setting students on the path to lifelong learning. *Pacific Journal of Technology Enhanced Learning*, 1(1), 1– 14. <https://doi.org/10.24135/pjtel.v1i1.1>
- [51] McLoughlin, C., & Lee, M.J.W. (2010). Personalised and self regulated learning in the Web 2.0 era: International exemplars of innovative pedagogy using social software. *Australasian Journal of Educational Technology*, 26(1), 28-43. <http://www.ascilite.org.au/ajet/ajet26/mcloughlin.pdf>
- [52] Blaschke, L. M. (2014). Using social media to engage and develop online learners in self- determined learning. *Research in Learning Technology*. <http://www.researchinlearningtechnology.net/index.php/rlt/article/view/21635/html>
- [53] Agonács, N., & Matos, J. F. (2019). Heutagogy and self- determined learning: A review of the published literature on the application and implementation of the theory. *Open Learning: The Journal of Open, Distance and e-Learning*, 34(3), 223– 240.
- [54] Cochrane, T. (2020). Exploring #heutagogy. *Exploring Educational Technology (Weblog)*. <https://thomcochrane.wordpress.com/2020/10/14/exploring-heutagogy/>
- [55] Lock J, Sakhal S, Cleveland-Innes M, Arancibia P, Dell D, De Silva N. The heutagogical bridge: Linking blended and online learning to technology-enabled lifelong learning. *British Journal of Educational Technology*. 2021
- [56] Alkire S. Subjective Quantitative Measures of Human Agency. *Social Indicators Research*. 2005;74(1):217-260
- [57] Narayan, V., Herrington, J., & Cochrane, T. (2019). Design principles for heutagogical learning: Implementing student- determined learning with mobile and social media tools. *Australasian Journal of Educational Technology*, 35(3), 86– 101. <https://doi.org/10.14742/ajet.3941>
- [58] Blaschke, L. M. (2012). Heutagogy and lifelong learning: A review of heutagogical practice and self-determined learning. *The International Review of Research in Open and Distance Learning*, 13(1), 56– 71. <https://doi.org/10.19173/irrodl.v13i1.1076>
- [59] Cochrane, T., & Munn, J. (2020). Integrating educational design research and design thinking to enable creative pedagogies. *Pacific Journal of Technology Enhanced Learning*, 2(2), 1– 14. <https://doi.org/10.24135/pjtel.v2i2.58>
- [60] Rivers, C., & Holland, A. (2020). Does blended learning change what learning is? (Weblog.) *WonkHE*. <https://wonkhe.com/blogs/does-blended-learning-change-what-learning-is/>
- [61] Anderson T. Theories for learning with emerging technologies. In: Veletsianos G, editor. *Emerging technologies in distance education* (pp. 35– 50). Athabasca University Press; 2010
- [62] Dron J, Anderson T. *Teaching crowds: Learning and social media*. Athabasca University Press; 2014 <https://www.aupress.ca/books/120235-teaching-crowds/>
- [63] Blaschke, L. M., & Hase, S. (2019). Heutagogy and digital media networks: Setting students on the path to lifelong learning. *Pacific Journal of Technology Enhanced Learning*, 1(1), 1– 14. <https://doi.org/10.24135/pjtel.v1i1.1>
- [64] Blaschke, L. M., & Marin, V. I. (2020). Applications of heutagogy in

the educational use of e- portfolios.  
Revista de Educación a Distancia RED.  
<https://revis.tas.um.es/red/artic le/view/407831>

[65] Thomas A, Campbell LM, Barker P, Hawskey M. Cetus publications. 2012. Into the wild: Technology for open educational resources URL: <http://publications.cetus.org.uk/2012/601>

[66] Cochrane, T., & Munn, J. (2020). Integrating educational design research and design thinking to enable creative pedagogies. *Pacific Journal of Technology Enhanced Learning*, 2(2), 1– 14. <https://doi.org/10.24135/pjtel.v2i2.58>

[67] Kahle D. Designing open education technology. In: Iiyoshi T, Kumar MSV, editors. *Opening up education: The collective advancement of education through open technology, open content and open knowledge*. Cambridge: The MIT Press; 2010 [http://mitpress.mit.edu/sites/default/files/titles/content/9780262515016\\_Open\\_Access\\_Edition.pdf](http://mitpress.mit.edu/sites/default/files/titles/content/9780262515016_Open_Access_Edition.pdf)

[68] Blaschke, L. M. (2021). The dynamic mix of heutagogy and technology: Preparing learners for lifelong learning. *British Journal of Educational Technology*, 52, 1629– 1645. <https://doi.org/10.1111/bjet.13105>

[69] Sala A, Punie Y, Garkov V, Cabrera Giraldez M. LifeComp: The European framework for personal, social and learning to learn key competence. In: EUR 30246 EN. Office of the European Union: Publications; 2020 <https://doi.org/10.2760/302967>

[70] Redecker C. European framework for the digital competence of educators: DigCompEdu. In: Punie Y, editor. EUR 28775 EN. Luxembourg: Publications Office of the European Union; 2017 <https://doi.org/10.2760/159770>

[71] Bencivenga R, “Transferability of methods and strategies for advancing gender equality in academia and research: a case study of an online course aimed at academic and professionals,” in *Learning Technology for Education Challenges*, 2021, pp. 90-100.

[72] Siri A, Rui M. (2017). The EduOpen Innovation. The University of Genova opens to MOOCs: A case study. EMEMItalia 2016, in *Design the Future!*, pp. 393-402.