FOSTWOM

Toolkit of Good Practices for Gender Balance in MOOCs

Co-funded by the Erasmus+ Programme of the European Union

The FOSTWOM project

FOSTWOM is a three-year project (2019-2022), co-funded by the European Commission's Erasmus+ for Higher Education (Erasmus+ KA2 Cooperation for Innovation and the Exchange of Good Practices – Strategic Partnerships for Higher Education).

FOSTWOM intends to use the inclusive potential of Massive Open Online Courses (MOOCs) to propose STEM (Science, Technology, Engineering and Maths) subjects free of gender-based stereotypes. FOSTWOM also intends to use MOOCS to suggest STEM subjects free of stereotyping assumptions on gender abilities. The consortium is interested in making STEM subjects inclusive and equally attractive to all, to ultimately increase the number of young women who choose to pursue careers in STEM.

The consortium consists of the following partners:

- UNIVERSITAT POLITÈCNICA DE VALÈNCIA (Spain) - Coordinator
- INSTITUTO SUPERIOR TÉCNICO (IST) - Universidade de Lisboa (Portugal)
- METID - POLITECNICO DI MILANO (Italy)
- CONSERVATOIRE NATIONAL DES ARTS ET MÉTIERS (CNAM) (France)
- KTH ROYAL INSTITUTE OF TECHNOLOGY (Sweden)
- COLÉGIO AMOR DE DEUS (Portugal)
- I.I.S. BENEDETTO CASTELLI (Italy)

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Toolkit of good practices for gender balance in MOOCs

Resources for MOOC developers, managers, and other stakeholders

Version 1.0 – January 2021

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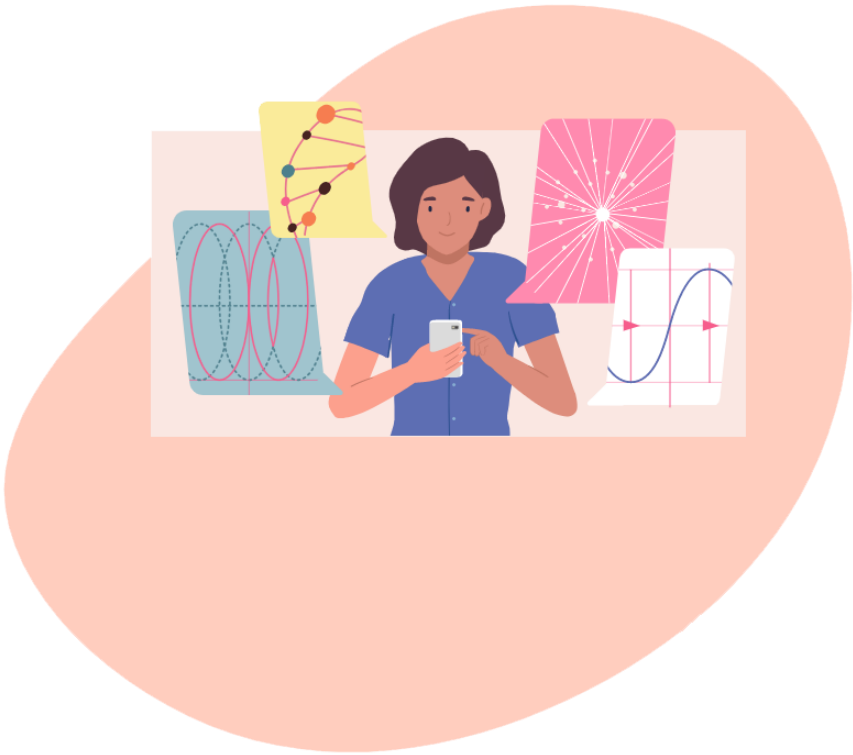
1. INTRODUCTION



1. Introduction

Universities and workplaces have made enormous progress in terms of gender equality[1] in the past fifty years. Even historically male fields as business, law and medicine have significantly improved gender-balanced recruitment and retention. Science, Technology, Engineering and Mathematics (STEM) areas have had less success in recruiting and retaining women in a gender-balanced way. Women are still largely under-represented in these areas (World Economic Forum Report, 2020). Globally, less than 30% of the world's STEM researchers are women (Chavatzia, 2017). Why are there so few women working as scientists and engineers?

According to the European Schoolnet, skills in STEM are becoming an increasingly important part for basic literacy in today's knowledge economy, since they are requested in order to ensure the citizens' confidence, knowledge and competences to participate actively in an increasingly complex scientific and technological world (EU Commission Report, 2015). With this framework, European policies are demanding to build capacities and develop innovative ways of connecting STEM to society, namely among young people intending to attract them to STEM subjects in secondary and higher education and related careers (EU Commission Report, 2015). However, it is also known that there are multiple disparities in participation in STEM education across regions, cultures and gender in Europe which are blocking the full involvement and the empowerment of all citizens and talents.

Both education and gender equality are an integral part of the 2030 Agenda for Sustainable Development, adopted by the United Nations General Assembly in 2015[2], as distinct Sustainable Development Goals (SDGs) but also as catalysts for the achievement of all other SDGs. STEM underpins the 2030 Agenda for Sustainable Development, and STEM education can provide learners with the knowledge, skills, attitudes and behaviours required for inclusive and sustainable societies. Women and girls have the same/equal right as boys and men to know how STEM can be used to make a difference in the world.

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[1] See definition by the European Institute for Gender Equality, https://eige.europa.eu/gender-mainstreaming/concepts-and-definitions

[2] https://en.unesco.org/sustainabledevelopmentgoals

Thus, special attention must be paid to science education of girls and young women, since their voices, expertise and creativity are crucial elements for sustainable development progress. However, they are being held back by discrimination, biases, social norms and expectations that influence the quality of education they receive. Indeed, while evidence shows that there are only a few reliable differences between boys' and girls' brains relevant to learning or education (Eliot, 2013) according to Unesco's Working Paper 1 integrated with SAGA Project (Unesco, 2016), society takes these small differences in the cognitive skills of girls and boys (Schleicher, 2018), and makes them much bigger, supporting boys' ability in math and science, and discouraging girls who study these subjects. With this context in mind, FOSTWOM intends to use the inclusive potential of Massive Open Online Courses (MOOCs) to propose STEM subjects free of stereotyping assumptions on gender differences in abilities. Moreover, the consortium is interested in fostering young women to science and technology, through accessible online content with relevant real-world applications within strong conceptual frameworks.

The motivation behind this project is based on the project team members' experiences on an everyday basis while teaching in STEM Higher Education Institutions (HEI), designing and producing MOOCs, and also applying MOOCs in blended learning methodologies. We know from experience that many students are using MOOCs in flipped classroom strategies within UPV, IST and POLIMI's curricula (Despujol et al., 2018; Gomes et al., 2018; Raffaghelli et al., 2018), but only very recently the teachers started to write research papers on this topic (Moura Santos & Costa, submitted 2020).

Based on the results and the analysis of data from previous research (FOSTWOM Report, published online 2020), and the project teams' own experiences, we propose some recommendations for filling the gap, and in particular, we advance several conclusions that we consider to be the important actions to take into account while building a gender balance Toolkit and the project's MOOCs. By a gender balance Toolkit, we mean a collection of recommendations and resources for instructional designers and teaching staff to apply while designing and preparing storyboards for MOOCs, so that future MOOCs have a greater chance to be more inclusive and gender-balanced.

2. OVERVIEW. KEY PRINCIPLES

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2.1. Purpose of the toolkit

A MOOC is an online course aimed at unlimited participation and open access via the web, and nowadays it often includes validated academic content designed and produced by faculty members and MOOC teams located at Universities. Within the FOSTWOM consortium, almost all HEI partners are MOOC producers with online courses designed in a multidisciplinary collaboration between teaching staff and the development team. Tutors, instructional designers, graphic designers and video editors, ideate and design the STEM content according to the pedagogical-scientific model of each online course (Moura Santos & Fleming, 2020).

It is our responsibility as MOOC developers and designers to promote gender equality and provide better opportunities for MOOC participants to access high-quality content in a gender-balanced environment. In addition, the virtual classroom offered by MOOCs may provide a more comfortable learning space for many female students (Lee et al., 2017). The free and easy access to the online courses provided by universities may be providing opportunities for female participants to take STEM courses, especially females from less gender-egalitarian and less economically developed countries.

From our previous research (Fostwom Report 2020, published online), we conclude that the consortium is interested in fostering young women in science and technology through a toolkit that helps to design and evaluate gender balance in MOOCs. Therefore, we are developing a toolkit to support MOOC stakeholders (content experts, MOOCs' team development members, participants/students) not only in analysing existing STEM MOOCs so that they can raise their awareness on biases, but also in helping them to contribute to future STEM MOOCs free of gender stereotypes.

More specifically, the FOSTWOM toolbox should provide tools to:

- Make women working in the STEM subjects, researchers and other role models more visible;
- Make women involved in STEM MOOCs, female teachers, professors and lecturers more visible;
- Avoid gender stereotypes in STEM content and activities;
- Use inclusive graphic design: images, colours, avatars and videos, that break gender norms and do not aim solely at male participants;
- Use real-life applications of relevant content for STEM careers, which include both women and men;

- Design assessment and learning activities in a gender-conscious way;
- Make visible the diversity and variety of competencies (both soft and hard skills) and representations needed among practitioners in the STEM area;
- Promote a gender equality discourse that highlights and problematises women's under-representation in STEM, and points to the consequences it may have for problem formulation (eg risk of lack of a broad user perspective), product design, research, innovation, etc.

Moreover, this toolkit does not seek to judge a MOOC and give it the status of "good" or "bad" or say this is right or this is wrong. Rather, it seeks to get people to reflect, to use their critical sense and to be able to design MOOCs' content in a more inclusive way. To try to make the content of the MOOCs reach more people who want to learn. The toolkit will also provide practical examples of what gender-biased and gender-discriminatory communication is and how to avoid it.

In summary, the toolkit will provide a useful set of tools for online courses considering gender balance during its design and development. We think developing stereotypes-free MOOCs about STEM subjects can attract and support girls and young women to study and work in these fields. Furthermore, we hope that the use of this toolkit promotes gender-equality training and can help to recognise situations of gender inequality in careers soon enough to correct them or implement alternative solutions.

2.2. Audience

This set of tools can be used by any person or institution that wants to develop MOOC contents with gender balance or check if the offered MOOCs respect gender balance.

Having said that, we expect the toolkit to be especially useful to institutions wanting to create an institutional policy of gender balance in their MOOC and online learning production. Institutions willing to do so will find in the FOSTWOM toolkit a great starting point in devising their own policies.

2.3. How to use this toolkit

Probably the easiest way to start with the toolkit is by going directly to section 3.3 and assessing one of your own MOOCs. In that process, you'll find some evident truths and some food for thought.

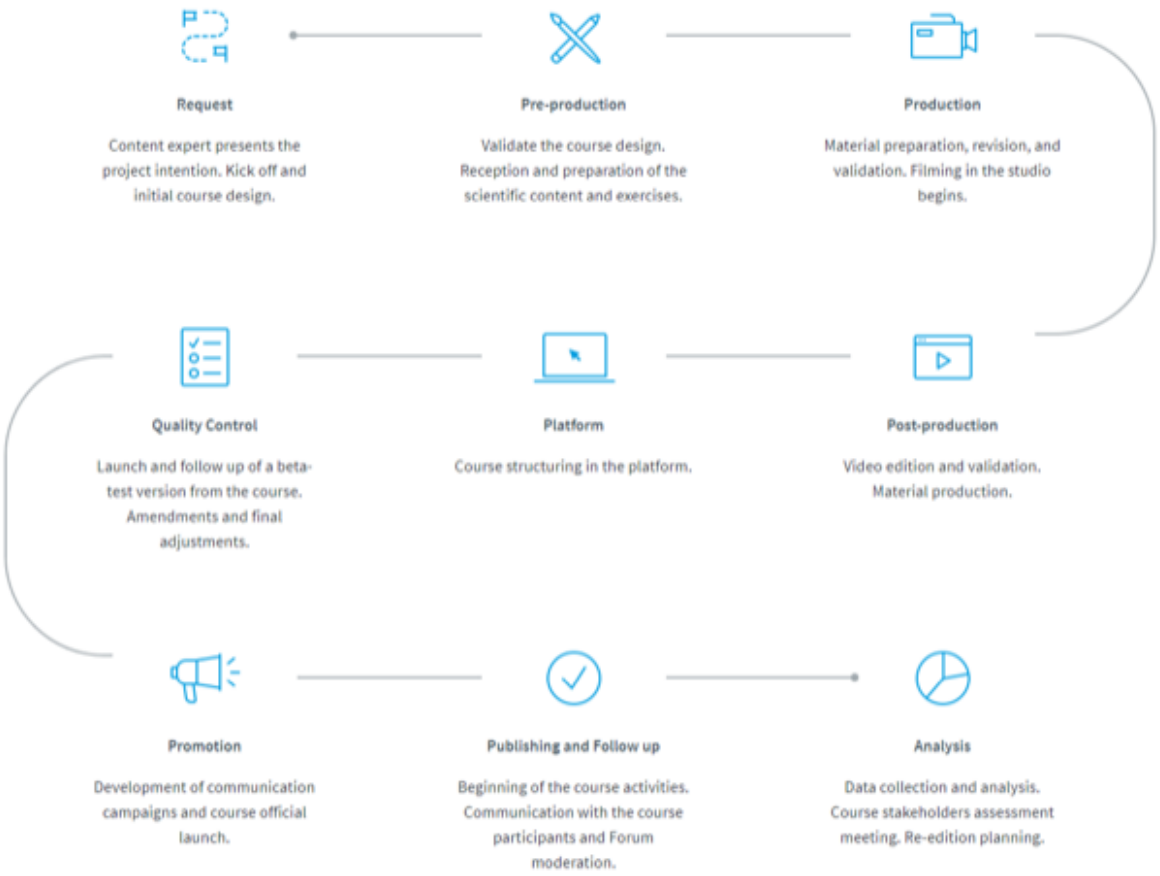
Then, go back here and read the toolkit with a practical eye, looking at what you can do to improve your gender balance in MOOC production.

3. GENDER BALANCE IN MOOCS. THE FOSTWOM CHECKLIST

3.1. A reference MOOC production process

Each FOSTWOM partner produces MOOCs in its own way. However, there are some common grounds and definitions for each task in the production process.

A good standard reference model is the MOOC Técnico production model (https://mooc.tecnico.ulisboa.pt/processo-de-desenvolvimento/?lang=en) that seems to give good results in what concerns participants' learning experiences (Moura Santos & Fleming, 2020). This model shows clearly the different steps required to design, produce and deploy a successful MOOC.



It is required that the gender-balance perspective is applied since the initial stages of a MOOC, and in order to be able to do that, the different roles involved in the MOOC creation should be aware of what to do.

3.2. Roles in the MOOC production process

If you are considering designing and developing a MOOC that incorporates gender balance, we recommend reading the guidance before beginning this process. If you want to check the gender balance level in a MOOC, you should use the checklist tool. The role you play in the creation and development of the MOOC is also an essential element in identifying the approaches you should consider. Next, we describe different points of view when addressing the task of defining the contents, images and videos of a MOOC.

Content experts

The autonomy of the content expert may vary widely according to the MOOC team's approach, or the production process followed by the HEI. In general, MOOCs provide a natural environment for a constructive alignment of teaching and learning with more students enrolling from a broader background diversity (Biggs & Tang, 2011). In STEM areas this is also the case since STEM MOOCs enrollees range from "surface learners" (only concerned with memorisation of definitions) to "deep learners" (engaged in understanding and ultimately changing as a person), having in between "strategic learners" (who aim for good grades with minimal effort) (Marshall et al., 1999).

A good answer for dealing with the challenge of current's diversity of students is, therefore, the theory of constructive alignment, which is based on aligning the principle of students' learning by doing with the teacher's goal of obtaining significant learning outcomes from the teaching (Biggs, 1996). This principle of alignment can also be found in the Universal Design for Learning (UDL) Guidelines[3], which are a tool used in the implementation of UDL, a general framework to improve and optimise teaching and learning based on scientific insights into how humans learn. In a MOOC, similarly to a standard course, this can be achieved by working backwards while designing the course (Bye, 2017) : starting with the intended learning outcomes, defining the learning formative (Moura Santos & Ribeiro, 2017) and summative assessment activities[4] that go

[3] See more details in https://udlguidelines.cast.org

[4] See also the Polimi's MOOC about New Assessment Strategies accessed on 08/01/2021 https://www.pok.polimi.it/courses/course-v1:Polimi+ASS101+2020_M11/about

along with it, and finally carefully delineate the content and graphics of the video to be aligned with the intended learning outcomes and assessment activities. Not all faculty members of European HEI are familiar with the theory of constructive alignment, and the reasons are diverse, one of them being that they don't have as a rule a specific pedagogic preparation for teaching. Having instructional designers in a MOOC team provides a good opportunity to make awareness among the content experts of the advantages of designing a course along those principles.

On the other hand, besides applying a constructive alignment of content, learning methodology and assessment activities, the teacher must adopt the role of a facilitator of learning (Gynnild et al., 2007). Not only because the learning process is linked to sharing personal and common experiences with students, but also because students in a MOOC lack, even more than is face-to-face classes, the sense of self-monitoring and self-regulation which can lead to poor learning outcomes (Gynnild et al., 2007). In MOOCs, teachers and professors need more than in a standard class to develop their communication competencies so that they can combine the abilities to make themselves clear, use proper technical/graphical resources for learning and at the same time use a proper academic language. Since the development of all these competences is a challenging goal for the majority of content experts, those with higher levels of communications skills along with expertise in the field would be perfect candidates for being the advocates of a gender balance discurs in STEM subjects.

Visual designers

The role of the visual designer of the MOOCs may not be evident for people who are not involved in the creation and development of courses. Since online learning has to be prepared to be performed in a variety of platforms, a professional task needs to be done. In addition, they can create better graphical representation for concepts based on creative briefs through artwork and layouts for digital projects.

The communication between content experts and visual designers, often facilitated by the instructional designer assigned to the MOOC project, is crucial for avoiding misunderstandings as regards to gender – biased images and/ or videos. Besides, the visual designer should be aware of the importance of selecting or creating gender – balanced situations.

The main tasks of the visual designer usually include:

- Ask questions to the content expert(s) in order to catch the spirit of the MOOC (or course) project and - when possible - propose gender-balance oriented solutions to each choice to be made from a visual perspective.
- Accompany the content expert, with the support of the instructional designer, in choosing an appropriate graphic coordinated image for the course, also in consistency with any already existing elements to be included (such as logos, colours derived from the overall project that includes the MOOC under construction, company/institution coordinated images, etc).
- Provide suggestions and examples for the graphic and video elements to be creatively designed from zero.
- Read carefully all storyboards provided by the content expert from a visual perspective, in order to verify if the balance between spoken text and images and keywords is effective in videos, and if the balance between graphic elements and text contents is effective in all other cases.
- Provide suggestions and alternatives whenever possible if there is a lack of (not only gender related) balance in the storyboard, in order to work in advance (and avoid expensive and time-consuming changes after the recordings are done).

  Receive graphic elements from the content expert and provide alternatives consistent with the intended learning outcomes in order to improve the final product, as far as possible, using image stock libraries.

Instructional designers

Instructional designers create effective, engaging learning experiences, working side by side with content experts and visual designers. Their role is to coordinate the efforts provided by all professionals involved so that the final result is as effective and pleasant as possible, according to all elements and variables considered. They draw on best practices from education, design, educational psychology, pedagogy theories, systems theory, and creative writing to provide learning experiences for multiple and diverse target users. .

While trainers or teachers deliver instruction to a live audience, instructional designers work behind the scenes. The instructional designer

role determines how the learning experiences and materials should be created so that learners achieve the expected learning outcomes. Usually, they are responsible or involved in tasks related to the (re)definition of courses, or even the development of entire new courses. The elaboration of new training materials and curricula, such as teaching manuals, tutorials and student guides, is also one of their main responsibilities. Overall, the instructional designer may be the person in charge of controlling characteristics of the course that cannot be controlled by the content expert.

The following are tasks usually tackled by instructional designers when involved in MOOC design and production (FOSTWOM elaboration starting from Instructtech, 2020):

- Assist faculty in discovering methods of improving their instructional design skills with and without technology;
- Guide content experts in designing their courses with the support of innovative learning methodologies, starting from learning outcomes, choosing an assessment strategy consistent with them, providing exercises, feedback, contents, additional materials consistent with the chosen learning strategy;
- Guide content experts in understanding the opportunities and challenges related to the MOOC platform in use, in order to exploit the firsts at best in the design of the MOOC and to avoid or deroute from the seconds at the maximum extent possible;
- Coordinate the dialogue between the content expert and the visual designer in order to support both of them in finding the most effective solutions to accompany learners in their path, also from a gender-balance perspective (starting from the video format to be used in the MOOC itself and the basic graphic elements and colours that will accompany the whole MOOC);
- Support the visual designer in making choices around images and video elements (or already existing contents) when parts of them - beyond graphics - need an improvement, also when related to gender-balance;
- Design and choose/adapt templates for key documents to be used by content experts: storyboards, exercises, short explanations, instructions, etc.
- Provide examples to show content experts how to use this template effectively (and show them what happens if this is not the case);
- Conduct training sessions teaching faculty and staff how to use new technologies required, if needed;
- Conduct research studies evaluating the use of technologies and their impact on student learning outcomes;

- Create training materials to accommodate the self-learners and provide resources for MOOC participants in order to support their individual learning experience as effectively as possible;
- Keep track of the design process and support the content expert in monitoring the consistency between the intended learning outcomes and the content of the MOOC, including assessment, during the whole process.

Thanks to this Toolkit, we hope the Instructional designer can effectively support the content expert also in taking constantly into account all the gender-balance variables that can be considered along the way.

Other Roles

There are more roles involved in the successful development of a MOOC. While they are of key importance in their development we want to stress the importance of considering gender balance in MOOC production since the beginning.

So we will not develop a checklist accounting for these roles, but we will give some basic recommendations.

These other roles include:

Teaching assistants (TA): responsible teacher/s whose main task is to interact with the students regarding the dimension of the course: they act as experts in the subject of the course; they are spokespersons for the teaching team on the platform; they solve doubts about the content expressed through forums or other channels of participation and make them dynamic; they solve doubts about the operation of the platform.

They may also help teachers in the tasks of design and content creation

Mentors/community manager: people who have successfully completed the course or chosen by the teacher and with a high knowledge of the subject. Their function is to monitor the course, resolve doubts about the content, energise the forums and act as a filter for teachers.

System Administrators: technical staff responsible, among others, for the implementation of the course on the platform. They also review the contributions in the forums that refer to technical aspects and act as technical support staff.

For all these roles it is important to have in mind that they should be inclusive to both genders in all communications. Gender-aware language considerations are a must. A good reference for this is the Toolkit on gender-sensitive communication from the European Institute for Gender Equality (EIGE 2019)

3.3. What checklist shall I use?

As we said previously, FOSTWOM checklist has been designed trying to be easy to apply in everyday usage. In order to fulfill that requirement we recognise that the different roles in the MOOC production process may have a limited scope in what they may do. So we have built two different checklists: one for content experts and another for visual designers. Instructional designers are expected to use both, together, and keep under control the consistency between the two.

In applying these checklists follow these principles:

- REFLECTION from a gender and diversity perspective is the guiding principle." It is a process (learning new skills and professional development) that requires time. A good starting point is to go through the checklist, preferably together with other people involved in MOOCs, to get started thinking and reflecting on how inequality affects teaching and learning in your specific teaching subject;
- Sensitive contexts may require an inclusive approach as the one proposed in the Universal Design for Learning (UDL) Guidelines[5] in order to consider different perspectives;
- Local culture and language are important. Consider how this checklist applies to your culture and specific language issues, but also consider that MOOCs may be used by anyone in the world;
- Do not look at single items, but at the overall result of having a better-balanced MOOC!!!
- All questions should be written affirmatively, so that all respondents understand the content easily.

[5] See more details in https://udlguidelines.cast.org

Don't be shy! Look at the checklist and use it as it best suits your specific case or course

We are already improving this version, which is open to comments and suggestions from the public. **Give us your feedback by leaving your suggestions through the checklists in the FOSTWOM website**, so that we can improve and support STEM MOOCs designers and raise awareness around the gender-balance perspective.

3.4. Checklist for Content Experts

Category	Question	answer options	Is this under your control?	How to mitigate this?
General	Are female content experts part of the teaching staff of this MOOC?	Yes/No	Usually not	if you have a chance to involve women as role models, testimonials, case study representatives, please do so
General	Do you reflect on yourself and your professional role in a gender conscious way?	Yes/No	YES!	Be open to reflect on yourself and your professional role in a gender conscious way. We suggest going through the list together with the other teachers or experts involved in designing the MOOC in order to begin thinking and reflecting on how these issues influence teaching and learning in your specific subject. (It's about learning new skills, it's not enough going through the checklist) Gender is an area that most people have opinions about, but fewer have solid knowledge. It is also in many cases about things that affect personal values, which force you to reflect on yourself and your identity. Becoming gender aware is often a slow process of knowledge and learning. Time is needed for dialogue and reflection based on the scientific knowledge that is available. Without an in-depth understanding of how gender is done in everyday practices, it is also close at hand that gender-blind and homosocial practices continue without being problematised.
General	Do you reflect on how gender influences teaching and learning in your specific subject?	Yes/No	YES!	We suggest going through the checklist together with other teachers or experts involved in designing the MOOC in order to begin thinking and reflecting on how gender influences teaching and learning in your specific subject. (It's about learning new skills, it's not enough going through the checklist without reflection)

General	Do you actively seek ways to be inclusive to both women and men in your approach to the design of this MOOC?	Yes/No	YES!	
language	Is the language you are using gender neutral?	Yes/No	YES!	try to write/check if the storyboard is balanced, otherwise suggest expressions that will change sentences to a more neutral form. Here you can find some suggestions from the Cambridge Dictionary
language	Do you avoid using masculine forms/pronouns/nouns in a universal meaning	Yes/No	YES!	Try to paraphrase in order to refer to a neutral person and not to men or women only. If there is no neutral form to use, try to write your contents referring to both male and female without stereotyping (he/she, him/her, ...).
language	Do you avoid terms that may be belittling to one gender?	Yes/No	YES!	Example: address a female manager as "bossy"
language	Are you using a gender neutral pronoun if available in the language of your MOOC?	Yes/No	YES!	in English the gender-neutral pronoun is they/them (also for singular). See APA guidelines, https://apastyle.apa.org/style-grammar-guidelines/bias-free-language/gender: "The language related to gender identity and sexual orientation has also evolved rapidly, and it is important to use the terms people use to describe themselves"
content (texts, images, videos, etc)	Are women and men equally represented in the examples?	Yes/No	YES!	Try to have the same number of women and men in the examples in your MOOC and give them equal positions or roles. You can also let women and men switch traditional positions or roles as a way to challenge stereotypes.
content (texts, images, videos, etc)	Are you providing balanced examples which empower **both** men **and** women?	Yes/No	YES!	example: give the same "power role" to male and female in different examples within your MOOC
content (texts, images, videos, etc)	Do the chosen examples represent the diversity of people/genders?	Yes/No	YES!	Try to have women and men equally represented in the examples in your MOOC.
content (texts, images, videos, etc)	Is gender addressed as a power structure that affects the MOOC topic?	Yes/No	PARTIALLY	If possible, address how your specific subject has developed historically and what it looks like today within research, innovation, practice and usability from a gender perspective.

content (texts, images, videos, etc)	Are women and men equally represented in the reference list?	Yes/No	PARTIALLY	Try to have as many women as men as authors of the course literature in your MOOC.(Choose course literature in your MOOC written by authors who represent the diversity of people and genders.)
content (texts, images, videos, etc)	Are you avoiding **irrelevant** information around gender?	Yes/No	YES!	As an example, "the female researcher who discovered...": "female", in this case, is totally irrelevant.
storytelling	Are you referring to women in a subordinate position?	Yes/No	YES!	Hierarchies are one of the ways gender can be taken into account. Please be aware of the gendered hierarchies that you can create when you give examples. When referring only to men in management roles, for instance, you reinforce already existing gendered hierarchies
storytelling	Are you selecting/creating balanced role models?	Yes/No	YES!	Be careful to not act as though women in power positions are something extraordinary and thus deserve a lot of extra attention. It's a balance, sometimes it is important to highlight progress and role models as well. It is situation dependent. As an example, pointing out that the university has appointed its first female university president is ok, but continuously mentioning that she is a woman becomes negative over time.
storytelling	Can you include in your MOOC design an interview, a story, a biography of a female who can be inspirational?	Yes/No	PARTIALLY	If any, having a real-life experience (preferably told by the protagonist) is an effective way to empower both genders
activities	Is gender awareness encouraged among students in collaborative learning activities?	Yes/No	YES!	Have students reflect on the gender balance in the group and on the roles taken and given in the group. Are they gendered? Who gets more or less attention? Who takes up more or less space? Are all included and is a gender-conscious language used? Suggest that they change roles from time to time and that they pay attention to the dynamics of the group from a gender perspective. Have all students agree on some basic rules.
activities	Are you designing exercises and activities which	Yes/No	YES!	*none*

	include both male and female people in texts, images, examples?			
activities	Are you giving equal importance and hierarchical power to male and female personas in different exercises?	Yes/No	YES!	*none*

3.5. Checklist for Visual Designers

Category	Question	answer options	Is this under your control?	How to mitigate this?
content	Is the storyboard written taking into account a good balance between the need of using a non sexist language (i.e. "s/he", "she or he", etc) and the need of avoiding repetitions so that the speech maintains a natural feel?	Yes/No	Partially	try to write/check if the storyboard shows a balance, otherwise suggest expressions that will change sentences to a more neutral form. Here you can find some suggestions from the Cambridge Dictionary example: if you need for instance to use the keyword "headmaster", use "headteacher" instead
content	Did you check if the text in the **images** is gender-balanced?	Yes/No	YES	see above suggestion
content	Did you check if the text in the **videos** is gender-balanced?	Yes/No	YES	see above suggestion
Images/videos	Did you do an exploratory research of images (and/or a collection of the already existing ones) around the topic of the MOOC, in order to verify if there are gender-balanced images?	Yes/No	YES	Search in existing repositories for images that are representative of the main target you are addressing from a gender balance perspective. Create your own image database with the ones you selected. Whenever possible (and if feasible), a good practice is to produce photo/video material yourself, especially if you struggle to find the images you need. This way you can have much more control on the output and even save time in the long run.
Images/videos	Are the images balanced and representative of diversity of genders?	Yes/No	Partially	For some STEM professions there is a lack of images representing women in technical roles, the ones more frequently covered by men. Either produce photos/videos yourself of women in these roles, or you them with illustrations/graphic elements

Images/videos	Are you designing the graphic elements in order to be gender-balanced (objects or contexts that can be biased)?	Yes/No	YES	pay attention to your choices of objects, environments, general representation of the roles in order not to be stereotypes (example: girls playing with dolls and boys playing with cars; in this case the graphic elements - dolls and cars - need your eye on them)
Images/videos	Are there sexualised images of women/girls or images that might induce a sexualised perspective?	Yes/No	YES	you should completely avoid them
Images/videos	Are females represented in subordinate roles from a hierarchical perspective?	Yes/No	Partially	even if the real context chosen by the content expert (for example, a case study) presents a hierarchy that sees women in subordinate roles, you can balance the final result by adding images, examples, graphics, etc that represent them in top roles in other parts of the MOOC.
Images/videos	Are you using stereotyped colors/graphics referring to women/girls?	Yes/No	YES	whichever color you choose is fine. Just pay attention, whenever possible, to balance stereotyped choices assigning colors to genders
Images/videos	Are you choosing/selecting images of women balanced in terms of age, ethnicity and physicality?	Yes/No	YES	Include diversity as much as possible

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