

Gender and Diversity in Digital Learning

Rationale and objective of this fact sheet

Digital learning has received a huge boost due to the COVID-19 pandemic, but has already been a working tool in international contexts for many years. Though digital technologies are generally considered to be open, democratic, gender-neutral and uncomplicated in terms of access and handling, a closer look can reveal striking differences between different groups of users. Factors such as gender, age, nationality, economic circumstances, social and cultural background, etc. play a central role.

This fact sheet explains the framework and makes recommendations for setting up inclusive and gender-responsive digital learning concepts in terms of technology, content, and methods.



Research findings

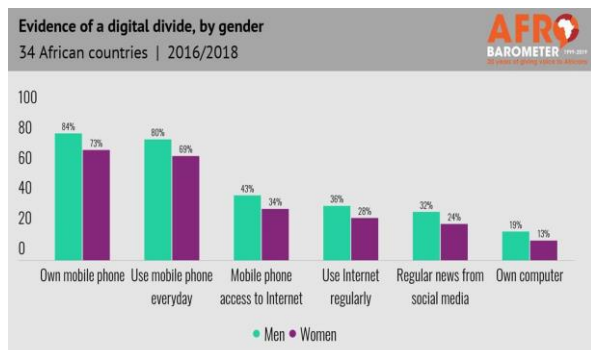
While early research suggested that online learning environments are gender neutral and provide a democratic and equal environment (Margolis and Fisher 2002), later research observed that simply moving a learning community online does not mean that it automatically becomes more democratic, less aggressive, or free of the gender-related problems like bullying and sexual harassment (B. Anderson 2006). In fact, some studies found that online learning may replicate the same asymmetrical gender and power dynamics as traditional face-to-face learning environments, with male students displaying dominant, controlling, arrogant, and other deviant behaviour (Gunn, McSpornan, Macleod, and French (2003). For many women, online learning is a "third shift" in which they grapple--often in isolation--with time constraints that hinder them in fitting distance learning into their already packed work and family lives (Kramarae 2001). Many female students in online classes have to cope with the multiple responsibilities of being an income provider, parent, and student, resulting in insufficient interaction with faculty members and problems or frustration with the technology Muller (2008). (<https://tomprof.stanford.edu/posting/1402>).

Aspects of diversity and gender that may influence digital learning

Many factors influence the use of digital learning offerings, including sociographic and individual aspects such as age, gender, cultural, ethnic and religious affiliation, disability, language skills, individual learning type (auditory,

communicative, visual, motor and mixed forms), occupation (time management), living conditions (own room for learning), communication preferences, sexual orientation, mobility (city, countryside), income, care responsibilities (children, elders etc.), prior professional knowledge, etc.

The **gender gap in mobile Internet use** remains substantial in low- and middle-income countries, with over 300 million fewer women than men accessing the Internet on a mobile device. The gender gap is widest in South Asia at 51 per cent, and remains fairly consistent in other regions such as sub-Saharan Africa, which has the second-largest gender gap at 37 per cent.¹ Evidence from 34 African countries shows that women use the Internet less often than men (28 % compared to 36 %, see graph).²



Source: <https://afrobarometer.org/fr/press/africas-digital-gender-divide-may-be-widening-afrobarometer-survey-finds>

The use of digital devices requires not only **accessible and affordable** technology, but also **digital skills**, which women and girls in many parts of the world are **lagging** behind in. Moreover, women and girls often face cultural barriers because prevalent norms and values stigmatize the use of digital devices and the Internet. Safety-related issues may also hinder girls' and women's access to the Internet. Cyber-mobbing, online harassment and/or parents' fear of girls meeting boys online leads to fewer girls/young women using digital technologies. **Caregiving responsibilities** of women and girls may prevent them from enrolling in e-learning offers or participating regularly when their time is limited.

Sexual orientation should be taken into account as an aspect to prevent overt or covert discrimination in communication among learners. It can also be relevant in the design of training materials.

Do women and men learn differently? Women and men have the same learning potential, but according to Arrenberg and Kowalski³ (2007: 6) they prefer different

¹ GSMA Mobile Gender Gap Report 2020, page 3. <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2020/05/GSMA-The-Mobile-Gender-Gap-Report-2020.pdf>

² OECD Council on SDGs: Side Event 2019: Gender Equality and sustainable Infrastructure. <https://www.oecd.org/gov/gender-equality-and-sustainable-infrastructure-agenda-2019.pdf>

³ Arrenberg, Jutta / Kowalski, Susann (2007): Lernen Frauen und Männer unterschiedlich? Eine Studie über das Lernverhalten von

learning styles. For example, communication opportunities with colleagues are more important to woman than to men. Female students, compared to male students, often prefer the auditory/visual and communicative/visual learning types.

What does gender mainstreaming and diversity in digital learning mean?⁴

Gender mainstreaming in digital learning covers multiple aspects: use of technology, didactic design of learning scenarios, preparation of content, use of language, implementation of courses, supervision and communication between trainers and participants as well as evaluation. In general, when planning and implementing digital learning courses, gender equality and diversity aspects should be taken into account at all stages of the process: scoping and analysing the target groups and their needs, designing the offerings, choosing techniques and contents, doing quality management, and evaluating digital learning offers.

When designing digital teaching modules and material, attention must be paid to ensure that different groups are enabled to participate equally. An essential advantage of digital learning is the self-responsible use of time and other resources with regard to predefined or self-imposed learning objectives. Self-paced learning may support those who learn at a different pace. Whether addressing issues of physical disability, neurodiversity or availability of time, the ability of individuals to select and change their pace is an important factor⁵. For example, women with caregiving responsibilities for children or elder family members can access digital learning sessions when they have completed these other tasks.

Possible disadvantages and inequalities should be balanced out. There is no one-size-fits-all recipe for digital learning that is gender- and diversity-appropriate. It is the responsibility of the designers to integrate aspects of gender equality and diversity in their courses.

Studierenden. Fachhochschule Köln.
[http://www.kompetenz.de/content/download/9892/69564/file/Stu die Lernen Frauen und Männer unterschiedlich.pdf](http://www.kompetenz.de/content/download/9892/69564/file/Stu%20die%20Lernen%20Frauen%20und%20M%C3%A4nner%20unterschiedlich.pdf)

⁴ Alker, U. & U. Weilenmann 2009: Impulse zu Gender und Diversity im e-Learning Praxisleitfaden zur Berücksichtigung von gender- und diversitygerechten Aspekten in Online-Bildungsangeboten. Schriftenreihe Gender & Diversity Management. Band 2. https://www.fh-campuswien.ac.at/fileadmin/redakteure/FH_Campus_Wien/Gender_and_Diversity/Dokumente/e-Learning_Web.pdf.

⁵ Trainingzone 2019: Diversity and inclusion. Why learning is the hidden key to success. Page 12. <https://www.trainingzone.co.uk/resources/diversity-and-inclusion-why-learning-is-the-hidden-key-to-success>.

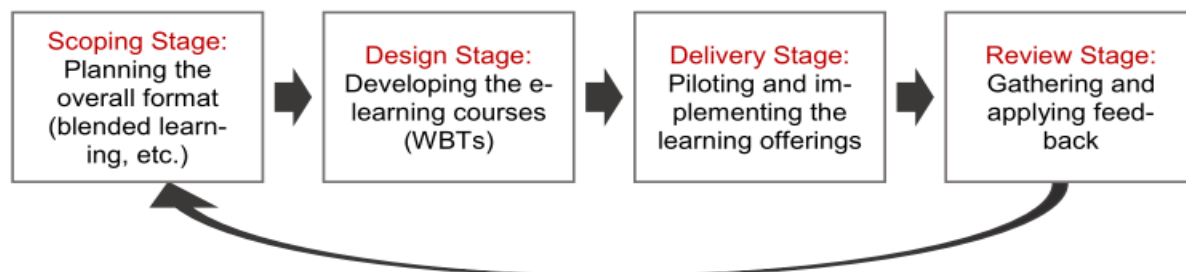
Alker, U. et al. (Hg. 2009) Mattern, C. Impulse zu Gender und Diversity im E-Learning. Kenneth V. Anthony: Analyzing the Influences of Course Design and Gender on Online Participation. <https://www.westga.edu/~distance/ojdla/fall153/anthony153.html>.



Requirements to include gender equality and diversity issues should therefore be part of the scoping workshops and needs assessments, interviews, and terms of reference (ToR).

Suggestions and tips on how to integrate gender equality and diversity aspects into the four stages of designing e-learning courses.

Developing e-learning courses is an iterative process that includes four stages. You can find more in-depth aspects of the four stages in the [E-Learning Standards and Operational Toolkit](#)⁶.



The Scoping Stage

When women, girls, or members of minority groups belong to the intended target group, questions should be included to address access, control, and capabilities of potential participants.

Access to and use of digital devices, capabilities of participants

A key question is which digital techniques, platforms and tools will be used for the digital learning courses. Which digital devices can women/girls access? Are they allowed to use these devices at any time? Do the women have the digital competences to use the offered tools? Women may under-estimate their digital skills, so that they may not dare to use certain tools. Sensitive trainers are needed to encourage such participants. Is the bandwidth sufficient to transmit audio, video material and larger files if necessary? Which languages do the target groups speak?

The Design Stage

Gender- and diversity-sensitive preparation of digital learning contents

Materials can include diversity and gender aspects implicitly and explicitly. Materials can be implicitly gender and diversity friendly by addressing the topic of diversity directly. However, it might be useful to include concrete, explicit content from gender equality and diversity research because this can draw attention to the

overall social context and to unconscious biases. Learning content should be adapted to the daily lives, diversity of interests, and future professional context of the learners. Below you find suggestions for aspects to consider when developing gender- and diversity-sensitive contents.

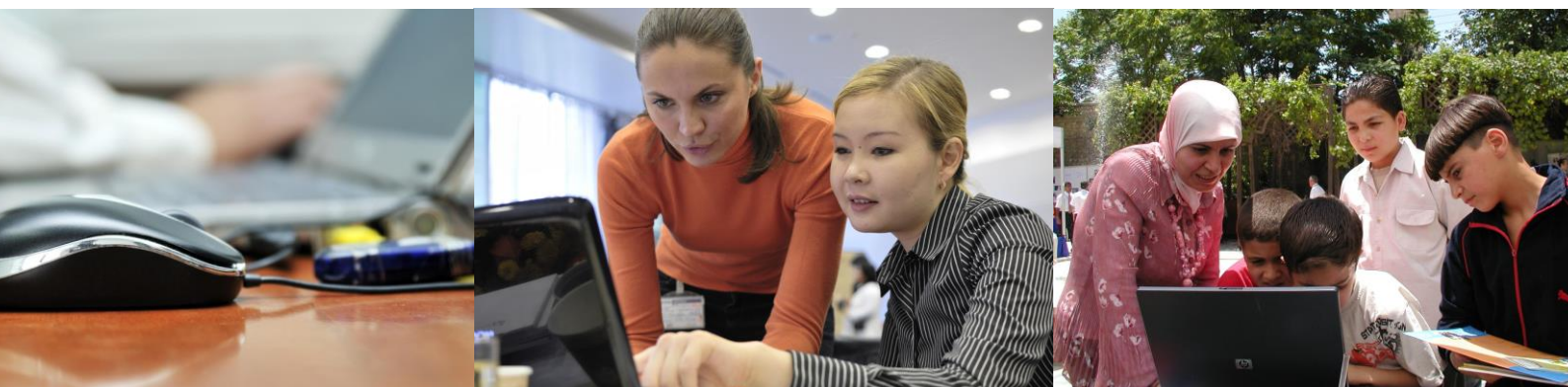
1. **The language and the selection of examples** must be designed in a gender-appropriate and non-discriminatory way and ideally also be expandable with the participation of the users.

The conscious breaking of stereotypes through the selection of best practice examples or role models would be desirable. Role models should reflect different genders as well as age, social and cultural backgrounds, etc.

2. **Case studies** should take into account different life contexts and be selected so that women and men, older and younger people, people with different cultural backgrounds feel equally addressed. Relation to the real world and application as well as interdisciplinarity should be considered.
3. **Male and female voices** should be used in audio contributions, and there should be a balance of different people in images. For example, women should be used more often in videos, because in videos the activity and dynamism of people is evaluated more positively than on static images. In addition, women are still more likely to be used as "decorative elements" in static images than men.
4. **Aspects of barrier-free usability** (accessibility) of online content: around 8% of men have colour vision deficiencies. It is therefore important to ensure sufficient contrast in all materials.⁷

⁶ This paper focuses on gender equality aspects and therefore cannot cover the whole range of the four stages in the development of e-learning courses.

⁷ Ulrike Alker, Ursula Weilenmann (Hrsg. 2009); Klaudia Mattern: [Impulse zu Gender und Diversity im e-Learning Praxisleitfaden zur Berücksichtigung von gender- und diversity gerechten Aspekten in Online-Bildungsangeboten](#). Schriftenreihe Gender & Diversity Management. Band 2.



The Delivery Stage

Technical support

Female and male tutors should be available for technical support. Times for technical support should be as flexible as possible for women who often face time constraints due to their multiple tasks. Having female technical tutors may reduce the inhibition of women to ask for support.

The Review Stage

The evaluation of e-learning courses is the fourth and final step. How can gender equality and diversity aspects be taken into account? In addition to the classic questions on the achievement of objectives, methodology and didactics, etc., gender and diversity aspects can be considered by asking specific questions:

- ✓ What gender equality and diversity issues were explicitly addressed in the contents of the course? Do you have suggestions how to better integrate such issues?
- ✓ Were the materials provided gender- and diversity-responsive?
- ✓ Did the facilitator/trainer use inclusive language that was free from discrimination?

If applicable:

- ✓ Were there opportunities for exchange in single sex groups during the course?

Sex-disaggregated information should be analysed with regard to the technical support:

- ✓ How helpful was the technical support? What could be improved?

The most important aspects on gender and diversity responsive digital learning summarised

- Gender and diversity-responsive digital learning:
- takes into account the different levels of technical and content-related knowledge of participants.
 - takes into account the partly different access to digital devices and the possibilities of their use by the participants.
 - is aware of the different living and working conditions of participants that influence the active participation in digital learning processes.
 - offers extensive technical support by female and male advisors.
 - uses gender- and diversity-sensitive language: When using gender- and diversity-appropriate language, pay attention to the context and be creative!
 - has a gender-aware learning concept.
 - tries to work with gender- and diversity-sensitive facilitators and trainers.
 - avoids stereotypes in didactic material, images and communication and uses instead role models that stimulate thinking.
 - includes flexible, interactive and anonymous learning opportunities and offers safe spaces for small groups.
 - encourages reserved participants.
 - has an internal course netiquette that includes a non-discriminatory communication style.
 - selects a person to mediate in case of conflicts and violations of netiquette.



Published by:

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

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Bonn and Eschborn, Germany

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Eschborn, 14.09.2021

Author/Responsible/Editor, etc.:

Nina Alf; Sylvia Van Ziegert (ed.); Johanna Kirchner (ed.)

Design/layout, etc.:

Lynn Apelt

Photo credits/sources:

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