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When is a tool a tool?

An analysis of guiding materials & websites to integrate dimensions of gender and diversity into research

Written by	Stefanie Kerschbaum, Magdalena Kleinberger-Pierer, Karin Grasenick
Editorial	Julia Trattnig
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Abstract

Responsible Research and Innovation (RRI) has become increasingly important in recent years with the European Commission listing gender equality as one of the six policy keys. Various organizations, institutions and platforms have thus developed toolkits, tools and guidelines on how to integrate gender and diversity as research content. 21 of such tools, among others IGAR, SAGER, GERD and PLOTINA, are listed and analyzed in this report concerning their content, focus, phrasing and potential usability for the addressed user groups. These users might lack a profound knowledge on gender topics and the related terminology. The results of this analysis provide insights concerning the design, content, and usability of such guiding materials thereby supporting the evaluation of the suitability for a certain field of application.

1 Table of contents

2 Introduction

This report gives a detailed account of 21 German and English tools, platforms and guidelines that are intended to support the integration of gender and diversity into research. The aim of the report is to list and systematically analyze and compare these materials.

The first, theoretical part of the report provides the explanatory framework to understand the results of the analysis. It comprises the definitions of a tool and the analytical categories like type, content, structure, phrasing, etc.

The main part of the report (results of the analysis) is divided into two sections:

- Section one deals with tools, platforms and guidelines with no specific scientific focus.
- Section two examines tools, platforms and guidelines for specific scientific fields.

To provide an overview, the 21 analyzed gender toolkits are listed with their content, scientific field and usability in the following section:

Table 1: Overview of the 21 Gender Toolkits

Toolkit	Content	Scientific field	Usability
Gender Balance Assessment Tool (GBAT)	Gender in research content	No specific focus	High
IGAR Tool	Gender in institutions + aspects of research content	No specific focus	High
Gender Research: A how to guide	Gender in research content	No specific focus	Medium
PRAGES - PRActicing Gender Equality in Science	Gender in institutions + aspects of research content	No specific focus	Medium
SAGER - Sex and Gender Equity in Research	Gender in research content	No specific focus	Low
Structural Change Toolkit	Gender in institutions + limited aspects of research content	No specific focus	High
Toolkit for integrating gender-sensitive approach into research and teaching	Gender in research content + aspects of education	No specific focus	High
Top ten – top down - Top 5 wie kommt Gender in die Forschung	Gender in institutions + aspects of research content	No specific focus	Low
Wie wird Forschung gender-sensibel?	Gender in research content	No specific focus	Medium
Online training course - sex and gender in research	Gender in research content	Biomedical research	High
Gender and Inclusion Toolbox	Gender in institutions + aspects of research content	Climate change, agriculture	High
Zielgruppenorientierung und Nutzungskontexte: GENDERASPEKTE IN DER FORSCHUNG	Gender in research content	Technical science	Low
Gender Basic	Gender in research content	Biomedical research, health	Medium
Gendered Innovations	Gender in institutions + aspects of research content	Environment, engineering, health and medicine, Biomedicine, Urban planning	High
Gender-Toolboxen	Gender in institutions + limited aspects of research content	Education, engineering	Medium
GERD Model – Gender Extended Research and Development	Gender in research content	Computer science	Medium
LIBRA	Gender in institutions + limited aspects of research content	Health, biomedical science	Medium
PLOTINA	Gender in institutions + aspects of research content	STEMM	Low
Public life diversity toolkit	Gender in research content	Design, architecture, sociology	High
Toolkit Gender in EU-funded research	Gender in research content	Health, food, agriculture and bio-technology, nanoscience, materials and product technologies, energy, environment, transport, socio-economic sciences and humanities, science in society and internation cooperation	Medium
#Womenalsoknowstuff	Gender in institutions + aspects of research content	Political science	High

2.1 What is a tool? What do researchers need?

The analysis revealed quite a diverse use of the terms **"tool"** and **"toolkit"**. In our understanding, a tool is *"something that helps you do a particular activity"*[1]. In this sense, checklists or questionnaires that can directly be applied by researchers would be labelled "tools", and a collection of such tools would be a "toolkit". In contrast, a simple collection of information cannot be considered a tool.

Many of the materials that are available online (and are frequently labelled as "tools" and "toolkits") are very ambitious in terms of the information and content they provide. Written by experts in the field of gender and diversity, they include much background information. However, they sometimes lack actual tools that can easily be applied by researchers as a target group because these users might lack a profound knowledge on gender topics and the related terminology. Also, based on our experience in working with researchers[2], there might be a mismatch between the focus of the gender experts compiling the materials and the researchers' requirements. Frequently, there is a lot of time pressure for researchers who develop new projects and apply for funding. Despite a general openness for gender and diversity issues, researchers usually do not have the time to acquire much background knowledge when working on research proposals. In this situation, they need easily applicable and pragmatic tools that support them in designing their specific projects.

Most of the tools, platforms and guidelines provided online focus on the integration of gender and diversity into organizations or education. Only a few materials specifically address actual research contents and the process of developing ideas and research questions and specifying them in research proposals.

Against this background, we consider this report as a first step to more systematically classify and describe available materials. For the future, we suggest to clearly label materials: E.g. What previous knowledge is required to use the material? What is the purpose of the material? Transparently addressing such questions would certainly help researchers to actually apply and use the materials.

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[1] definition according to the Cambridge Dictionary: https://dictionary.cambridge.org/de/worterbuch/englisch/tool. Another definition by Merriam-Webster defines a tool among others as *"something (such as an instrument or apparatus) used in performing an operation or necessary in the practice of a vocation or profession"* (https://www.merriam-webster.com/dictionary/tool)

[2] Among others, we are continuously working to support researchers at the Technical University of Graz in integrating gender and diversity issues in their research content. In this context, we also conducted 40 qualitative interviews with researchers on different career levels in 2018.

2.2   Approach

In our previous work regarding the integration of gender and diversity issues in research contents[3], we drew on a range of tools, guidelines and platforms. We used this loose collection of material as a starting point for the systematic analysis in this report, and conducted an additional online research using related keywords in English and German. Further, we payed particular attention to materials provided with the keyword "RRI – Responsible Research and Innovation"[4]. In recent years, there has been growing interest in RRI, and gender equality is one of the six policy keys provided by the European Commission.

We then filtered the materials and selected only those for detailed analysis that focus on gender and diversity in research content, and not only in research organizations. For the analysis, we did not examine the contents in detail, but used a range of analytical categories to classify the material (see below).

2.3   Analytical categories & core results

For the purpose of analysis and comparison, analytical categories were determined. The categories are as follows:

- **Form:** This differentiates two subcategories: *Websites* (twelve of the analyzed materials) *and Papers/Reports* (nine of the analyzed materials).
- **Type:** This category determines whether the material can be understood as a „tool" or not, according to our understanding of a tool as discussed above. Three subcategories have been defined:
  - *Tool*: the content does not only involve information concerning the integration of gender and diversity into research. Elements provided include actual tools such as checklists or questionnaires, to help researchers in the process of integrating gender and diversity issues into their research. (Seven of the analyzed materials; according to our understanding of tools, three materials that refer to themselves as "tools" or toolkits have rather been categorized as "raising awareness and information": IGAR-Tool, Structural Change Toolkit, Toolkit Gender in EU-funded research.)
  - *Raising awareness and information*: information regarding the importance of integrating gender and diversity into research is provided. No elements supporting researchers in the actual process of integrating gender and diversity into research can be found (twelve of the analyzed materials).

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[3] e.g. the development of handbooks to integrate diversity issues in research and teaching in particular in technical disciplines, among others https://tc.tugraz.at/main/course/view.php?id=1932 and https://tc.tugraz.at/main/course/view.php?id=1904

[4] In particular, we used the website www.rri-tools.eu that features recommended resources for gender equality consisting of tools, inspiring practices and projects.

– *Information:* only information regarding gender and diversity in research is provided (two of the analyzed materials).

- **Content:** This includes a short summary and overview of the subjects covered by the material. Following subcategories have been used:

  – *Gender in research content* (ten of the analyzed materials).
  – *Gender in institutions + aspects of research content* (seven of the analyzed materials).
  – *Gender in institutions + limited aspects of research content* (three of the analyzed materials).
  – *Gender in institutions + aspects of education* (one of the analyzed materials).

- **Focus:** This category describes the relation between "gender" and "diversity" as used in the respective material. It includes three subcategories:
  – *Gender and diversity*: focusing on gender aspects and diversity aspects as two separate issues (eleven of the analyzed materials).
  – *Gender as one aspect of diversity*: gender is determined as one (important) aspect among the many dimensions of diversity (one of the analyzed materials: the "Public Life Diversity Toolkit" focusing on design, architecture and sociology).
  – *Gender*: only focusing on aspects of gender (nine of the analyzed materials).

- **Subject areas:** This specifies whether the information refers to a specific scientific field or not. The subcategories are:
  – *No specific focus*: input does not focus on a specific scientific field and is universally applicable (nine of the analyzed materials).
  – *Specific scientific field*: content does apply to a specific scientific field (twelve of the analyzed materials; fields include biomedical research, health, climate change, agriculture, computer science, design, architecture and sociology, education, engineering, biotechnology, political science, STEMM, technical science).

- **Phrasing** states whether previous knowledge of gender studies and related terms is required to understand the information or not. Three subcategories have been defined:
  – *Easy*: no use of terms related to gender studies (two of the analyzed materials).
  – *Moderate*: moderate use of terms related to gender studies. To provide a theoretical framework, terms are defined and/or explained. The definition of terms is easy to understand without background knowledge in gender studies (fourteen of the analyzed materials).
  – *Difficult*: more extensive use of terms related to gender studies. Terms are neither defined nor explained. Background knowledge is required to understand and use the material (five of the analyzed materials).

- **Structure** covers the various elements used in the materials. These include e.g. informational text, guidelines, questionnaires, tests, quizzes, checklists, videos and interactive modules. A list and short description of the different elements is provided for each material analyzed. In addition, subcategories refer to the number of different types of elements that are used:
  - *Single element*: one type of element (five of the analyzed materials).
  - *Moderately diverse*: two to six different types of elements (thirteen of the analyzed materials).
  - *Highly diverse*: more than six different types of elements (three of the analyzed materials).
  - Most materials focus on information text, only one really interactive tool was found: The Online Training Course "Sex and Gender in Research" by the Canadian Institutes of Health Research.

- **Usability** covers different aspects that make a certain material user-friendly. In particular, we looked at the availability of search functions, tables of contents and of hyperlinks, and a clear and appealing layout. Subcategories were determined according to the number of these elements that are included in a particular material:
  - *Low*: none or only one element (four of the analyzed materials).
  - *Medium*: two elements (eight of the analyzed materials).
  - *High*: more than two elements (nine of the analyzed materials).
  - Overall, the Gendered Innovations Website is considered the most useful material. It includes many specific questions and examples as well as further materials, and its subpages are very well interlined. Also, the "Public Life Diversity Toolkit" (focusing on architecture and urban planning) has a particular high usability, including a good structure and good, practically oriented descriptions of the tools, as well as a quiz and many specific examples. Also, some materials include very good checklists that can be directly used by researchers (for instance in "Top ten – top down – top 5", where a decision tree guiding researchers is provided as well).

- **Language** provides information regarding the language used. Sixteen of the analyzed materials were available in English (with some being translated to other languages, including German, Korean and Spanish), five were available in German only.

- **Gender model** refers to the authors' understanding of gender and is divided in two subcategories:

– *Binary gender model:* authors refer to only two discrete gender categories/identities that are considered as opposites - women and men[5] (thirteen of the analyzed materials).

– *Non binary gender model:* authors see gender as a spectrum. For example: *"We recognize that most studies will not be powered to detect differences in effects for gender-diverse populations such as transgender, especially in countries where such diversity is unknown. Yet authors need to consider the relevance of their research for gender-diverse populations"*[6] (eight of the analyzed materials).

– Different gender models are discussed in more detail on the Gendered Innovations Website, other materials just mention that gender models should be considered.

▪ **Intersectionality** specifies whether the authors refer to aspects of intersectionality or not. Intersectionality can be defined as: "the way in which different types of discrimination (= unfair treatment because of a person's sex, race, etc.) are linked to and affect each other"[7].
More than half of all analysed materials (twelve) do consider aspects of intersectionality in some form, although none of them in much detail. One notable exception is the Gendered Innovations Platform. Mostly, however, one or two sentences mentioning intersectionality are added when talking about choosing samples and formulation research questions.

▪ **Other**: This category is used to mention remarkable aspects of a certain material that are not part of any other category.

– Some materials seem to pay particular attention to the pictures used, reflecting different aspects of diversity (Top ten – top down - top 5; Gender and Inclusion Toolbox - Participatory Research in Climate Change and Agriculture).

– Some tools are not completely finished (GERD Model, Public Life Diversity Toolkit), others miss updates. This points to the problem of individual project funding and a lack of continuity.

– Overall, no evaluation or feedback by researchers who actually used the specific tools and materials has been found. Only two tools feature interviews with researchers, focusing on how the interview partners experienced the process of integrating the gender dimension in their research activities (Gender Basic, LIBRA).

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[5] cf. Genderspectrum, n.d.

[6] SAGER - Sex and Gender Equity in Research, p. 6.

[7] Cambridge Dictionary, n.d.

3 Results of the Analysis

3.1 Tools with no specific scientific focus

Title:	
3.1.1 Gender Balance Assessment Tool (GBAT) https://jlsumner.shinyapps.io/syllabustool/	
Form:	Website Developed by Jane Lawrence Sumner.
Type:	Tool
Content:	Gender in research content This tool automates the process of evaluating the (probabilistic) gender and ethnicity of each name on syllabi and bibliographies. – Gender and race probabilities in bibliographies and syllabi
Focus:	Gender and diversity
Subject areas:	No specific focus
Phrasing:	Easy No use of terms related to gender studies.
Structure:	Single element Researchers can use this tool to evaluate the gender and diversity balance regarding their bibliographies and syllabi.
Usability:	High The tool instruction can be found in an extra box. The instruction is precise, thus easy to understand. The tool works simply by copying and pasting your syllabi or bibliography into the tool or uploading the file.
Language:	English
Gender model:	Use of binary gender model but mention of the non binary gender model: „Because this algorithm works by assigning a probability distribution to binary genders based on names, this tool does not function well to accommodate non-binary gender identities"
Intersectionality:	Aspects of intersectionality are not considered.
Other:	/

Title:	
### 3.1.2 IGAR - Recommendations for Integrating Gender Analysis into Research http://igar-tool.gender-net.eu/en	
Form:	Website The IGAR tool was developed by GENDER-NET Consortium and CNRS. It has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration.
Type:	Raising awareness and information
Content:	Gender in institutions and aspects of research content The IGAR tool was developed to provide recommendations to integrate gender analysis into research. It refers to the use of sex- and/or gender analysis in all phases of research cycles. It means taking into account the biological characteristics of both females and males (sex) and the evolving social and cultural features of women and men (gender). – Integrating gender analysis into research – Integrating gender analysis into university curricula – Evaluation of gender analysis in research
Focus:	Gender and diversity
Subject areas:	No specific focus
Phrasing:	Moderate Use of terms related to gender studies including e.g. gender equality, gender aware research, gender blind research and gender transformative research. To provide a theoretical framework, terms are defined and explained in a separate glossary. The definitions used in the glossary are easy to understand without background knowledge in gender studies. All sources are cited for further information.
Structure:	Moderately diverse elements *Video* – what is IGAR? *Glossary* – of relevant terms e.g. gender aware research; gender blind research; gender sensitive research *Examples* – research project from various scientific fields *Further readings* *Key guidelines* - for researchers and grant applicants regarding e.g. research approaches; literature review; ethics *Checklists* – for researchers and grant applicants to assist in implementing the necessary steps for integrating gender

	analysis into their research projects; for peer reviewers/evaluators of research projects to assist to assess the adequate integration of gender analysis into research projects at the evaluation stage
Usability:	High The website features an index, divided into sections and subsections as well as a search function. Pictures and pictograms make the website visually more appealing. Accentuated and colored headlines as well as underscored, bold or italic words and bullets structure the text.
Language:	English
Gender model:	Use of binary gender model.
Intersectionality:	Aspects of intersectionality are considered – "To ensure that the research sample (participants, users, customers…) appropriately captures sex and gender based factors, including other intersecting variables (age, ethnicity, disability, religion, sexual orientation etc.), the proposal has to include proportional representation of men/boys and women/girls (or female/male animals, tissues and cells), where relevant."
Other:	/

Title: 3.1.3 Gender Research: A How-To Guide http://genderaveda.cz/wp-content/uploads/2017/10/gender-research-a-how-to-guide.pdf	
Form:	Paper (15 pages) Developed by the United Nations international research and training institute for the advancement of women.
Type:	Raising awareness and information
Content:	Gender in research content Guide to provide researchers with practical information regarding the integration of gender concerns into research projects and programs. – Why gender-sensitive research? – Characteristics of gendered research – Gendering research – Gender-sensitive indicator designs – Gender-sensitive research method selection – Communication of research findings from a gender perspective – Research reflexivity from a gender perspective
Focus:	Gender and diversity
Subject areas:	No specific focus
Phrasing:	Difficult Use of terms related to gender studies including gender equality, gender equity, gender roles, gender analysis and gender-sensitive research. To provide a theoretical framework, some terms are explained within the text. The sources used to explain and define terms are not cited. The guide is mostly focusing on gender-sensitive research, though this term is neither defined nor explained. Furthermore, gender-sensitive research does explicitly take into account transgender and transsexual population, but the guideline does not, which is contradictory.
Structure:	Moderately diverse elements *Guideline* – providing researchers with practical information regarding the integration of gender concerns into research projects and programs *Information text* - Top-ten list for researchers concerning the characteristics of gendered research *Further readings*
Usability:	Medium A table of contents, divided into sections and subsections, can be found at the beginning of the paper. Accentuated and colored headlines, bold words and bullets structure the text.

Language:	English
Gender model:	Use of binary gender model.
Intersectionality:	Aspects of intersectionality are not considered.
Other:	/

Title:	
### 3.1.4 PRAGES – PRActicing Gender Equality in Science http://www.retepariopportunita.it/Rete_Pari_Opportunita/UserFiles/Progetti/prages/pragesguidelines.pdf	
Form:	Report (265 pages) PRAGES has received funding from the European Community's Seventh Framework Programme FP7/2007. Written by Marina Cacace.
Type:	Raising awareness and information

Content:	Gender in institutions and aspects of research content
	
	Guidelines for gender equality programs in science. Only a limited section of the tool is focused on a gender perspective in research. The relevant part, entitled "Gender-aware science" is aimed at inserting the gender dimension in the very process of research and innovation design.
	   – Women and science: problems and issues at stake
	   – A friendly environment for women
	   – **Gender aware science (p.89)**
	   – **Overcoming gender stereotypes in science (p.93)**
	   – **Gendering scientific contents and methods (p.101)**
	   – Women´s leadership of science in a changing society
	   – Programs that work

Focus:	Gender and diversity
Subject areas:	No specific focus
Phrasing:	Difficult Use of gender studies related terms including e.g. gender dimension of research designs, gender aware science, gender blind science, gender neutral science and gender specific. To provide a theoretical framework, some terms are explained within the text whereas others are not. The given information regarding terms is easy to understand without background knowledge in gender studies but not very detailed. The sources concerning the explanations are not cited.
Structure:	Single element *Information text* – recommended actions for researchers regarding challenging stereotypes, fighting horizontal segregation, incorporating gender awareness in education and gendering research design and acknowledging women's visions and expectations
Usability:	Medium A table of contents, divided into sections and subsections, can be found at the beginning of the paper. Accentuated and colored headlines, bold words and bullets structure the text. Chapters are clearly separated from each other by a colored cover and an additional blank page. Recommended lines of action and examples of practices can be found in

	separate highlighted boxes. Charts are presented vertically, which is not convenient if the paper is read online.
Language:	English
Gender model:	Use of binary gender model.
Intersectionality:	Aspects of intersectionality are not considered.
Other:	/

Title:	
3.1.5 SAGER - Sex and Gender Equity in Research https://researchintegrityjournal.biomedcentral.com/track/pdf/10.1186/s41073-016-0007-6	
Form:	Journal article (9 pages) Result of collective effort by the EASE Gender Policy Committee (GPC).
Type:	Raising awareness and information
Content:	Gender in research content The Sex and Gender Equity in Research (SAGER) guidelines are a comprehensive procedure for reporting of sex and gender information in study design, data analyses, results and interpretation of findings. Designed primarily to guide authors in preparing their manuscripts, but they are also useful for editors, as gatekeepers of science, to integrate the assessment of sex and gender into all manuscripts as an integral part of the editorial process. – Sex and gender bias in the conduct of research – The role of journal editors and editorial policies – SAGER Guidelines
Focus:	Gender
Subject areas:	No specific focus
Phrasing:	Moderate Use of terms related to gender studies including gender equity, sex, gender, gender-sensitive, sex- and gender-based analysis and sex-disaggregated data. To provide a theoretical framework, terms are defined and explained in a separate glossary. The explanations used in the glossary are easy to understand without background knowledge in gender studies. All sources are cited.
Structure:	Moderately diverse elements *Information text* – for researchers, authors and editors regarding general principals and recommendations per section of an article *Graph* - SAGER flowchart guiding editors' initial screening of submitted manuscripts *Checklist* – for authors regarding gender-sensitive reporting *Glossary* – e.g. gender sensitive analysis, gender identity or sex-disaggregated data
Usability:	Low An abstract but no table of contents can be found at the beginning of the paper. Only bold headlines structure the text.

Language:	English and Korean
Gender model:	Use of non binary gender model – "We recognize that most studies will not be powered to detect differences in effects for gender-diverse populations such as transgender, especially in countries where such diversity is unknown. Yet authors need to consider the relevance of their research for gender-diverse populations."
Intersectionality:	Aspects of intersectionality are considered – "Anatomical and physiological differences between men and women (height, weight, body mass, cell counts, hormonal cycles, etc.) as well as social and cultural variables (socio-economic status, education, etc.) should be taken into consideration in the presentation of data and/or analysis of the results."
Other:	/

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Title:

3.1.6   Structural Change Toolkit

https://www.egera.eu/fileadmin/user_upload/Deliverables/D64_Database_of_selected_good_practices_for_gender_sensitive_research_81604.pdf
</td></tr>
<tr><td>

Form:
</td><td>

Website and paper
Relevant part of the tool – paper (96 pages)

The toolkit was developed by the EU funded EGERA project.
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<tr><td>

Type:
</td><td>

Raising awareness and information
</td></tr>
<tr><td>

Content:
</td><td>

Gender in institutions and limited aspects of research content

The structural change toolkit is meant to provide research institutions with a set of tools for the assessment of gender inequalities and discriminations, the promotion and appraisal of women in research institutions, gender-sensitive governance and the mainstreaming of gender knowledge across disciplinary fields. Only a limited section of the tool is focused on a gender perspective in research.

- Assessing gender inequalities
- Bias diagnosis
- Gender friendly environments
- Academic community training
- Revisiting governance & evaluation models
- **Strengthening a gender perspective in research: good practices of gender sensitive research**
- Monitoring & evaluation
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Focus:
</td><td>

Gender and diversity
</td></tr>
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Subject areas:
</td><td>

No specific focus
</td></tr>
<tr><td>

Phrasing:
</td><td>

Moderate
Use of gender studies related terms including gender perspective in research and gender-sensitive research.
To provide a theoretical framework, terms are defined and explained within the text. The given information regarding each term is comprehensive and easy to understand without background knowledge in gender studies. All sources are cited.
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Structure:
</td><td>

Moderately diverse elements

Information text – definition for researchers concerning good practices of gender sensitive research

List – providing researchers with specific examples of good practices of gender sensitive research.
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Usability:
</td><td>

High
A table of contents, divided into sections and subsections, can be found at the beginning of the paper. Hyperlinks connect each headline to the table of con-
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	tents. Chapters are clearly separated from each other by a blank page. Accentuated and colored headlines, bullets and tables structure the text.
Language:	English
Gender model:	Use of binary and non binary gender models – mention of various gender identities such as non-binary, trans* and genderqueer in some parts of the tool.
Intersectionality:	Aspects of intersectionality are considered - "Following an intersectional methodological approach, the main aim is to make inequalities and discrimination visible."
Other:	/

Title:	
3.1.7 Toolkit for integrating gender-sensitive approach into research and teaching http://garciaproject.eu/wp-content/uploads/2015/12/GARCIA_working_paper_6.pdf	
Form:	Paper (50 pages) This tool was developed by the GARCIA project, an EU-Framework 7 funded project.
Type:	Tool

Content:	Gender in research content and aspects of education
	
	This toolkit aims to help researchers integrate gender dimension in their ongoing research and teaching (of undergraduate, graduate and doctoral courses), and to apply while conceiving new projects and students' curricula.
	
	   – Gender in institutional and structural content
	   – **Gender in research and curriculum p.19**
	   – **Recommendations for introducing gender sensitive approach p.25**
	   – **Resistance in the STEM fields of study p.39**

Focus:	Gender and diversity
Subject areas:	No specific focus
Phrasing:	Moderate Use of gender studies related terms including e.g. gender equality, gender-sensitive approach, gender-sensitive teaching, gender-sensitive language and gender mainstreaming. To provide a theoretical framework, terms are defined and explained within the text. The given information regarding each term is easy to understand without background knowledge in gender studies. All but one source are not cited.
Structure:	Moderately diverse elements *Questionnaires and guidelines* – for researchers regarding the design of gender-sensitive research content, applying a gender-sensitive methodological structure and gender-sensitive outcome *Checklist* – for researchers concerning the use of gender-sensitive approach in research *Information text* – for researchers concerning examples of gender-sensitive research projects, list of other existing toolkits and definition of terms
Usability:	High. A table of contents, divided into sections and subsections, can be found at the beginning of the paper. Hyperlinks connect each headline to the table of contents. Chapters are clearly separated from each other by a single-colored page. Accentuated and colored headlines, bullets and bold words structure the text. Examples can be found in separate highlighted boxes. Sections regarding

	research or curricula are clearly separated. The checklist is illustrated as an actual checklist with boxes to check.
Language:	English
Gender model:	Use of non binary gender model – "In line with the general principle of GARCIA project not to focus merely on women, but on dominant gender culture, and not to consider men and women as two homogeneous categories, this Toolkit proposes adoption of approach that is sensitive to a variety of gender identities. It suggests not just sex and gender as relevant viewpoints in outlining the objectives, methods and outcomes of a project, but also consideration of transgender and transsexual perspectives."
Intersectionality:	Aspects of intersectionality are considered – "Another important aspect of this Toolkit is to focus on gender through intersectional approach, in which gender is not isolated category of identification, but intersected with the ones of ethnicity, race, class, age, citizenship status, corporeality and so on."
Other:	/

Title:	
3.1.8 Top ten – top down - top 5	
https://www.uibk.ac.at/gleichbehandlung/gender_mainstreaming/gmforschung.pdf	
Form:	Paper (19 pages) Written for the Austrian Federal Ministry of Education, Science and Research.
Type:	Tool

Content:	Gender in institutions and aspects of research content
	
	 Guideline for researchers to implement gender mainstreaming into their research. Special focus on research funding.
	
	     – Gender mainstreaming versus an affirmative action program for women.
	     – Gender mainstreaming and research
	     – **Evaluation of results p.10**
	     – **Lack of gender aspects in research p.11**
	     – **Gender sensitive language p.12**

Focus:	Gender
Subject areas:	No specific focus
Phrasing:	Difficult Use of terms related to gender studies including gender, gender-specific, gender mainstreaming and gender sensitive language. To provide a theoretical framework, only the terms gender mainstreaming and gender sensitive language are explained within the text. The source regarding gender mainstreaming is not cited. The guide is mostly focusing on gender, though this term is neither defined nor explained.
Structure:	Moderately diverse elements *Guideline* - for researchers focusing on gender sensitive language *Questionnaire* - for researchers regarding the evaluation of gender aspects in their research projects/programmes *Checklist* - for researchers concerning the integration of gender aspects throughout the whole research process *Graph* – gender aspects in research *Further readings*
Usability:	Low No table of contents or abstract at the beginning of the paper. Due to different colored text, examples are easy to recognize. Bullets and tables

	structure the text. Pictures make the paper visually more appealing. The checklist is illustrated as an actual checklist with boxes to check.
Language:	German
Gender model:	Use of binary gender model.
Intersectionality:	Aspects of intersectionality are not considered.
Other:	The chosen layout color – rose – could be interpreted as consolidating to gender stereotypes.

Pictures within the paper portray different aspects of diversity. |

Title:	
3.1.9 Wie wird Forschung gender-sensibel? Ein Leitfaden zur Integration von Gender-Aspekten in die Forschung http://www.moves.cc/wp-content/uploads/2014/02/gender-ind-die-forschung.pdf	
Form:	Paper (20 pages) Developed by Salzburg Research Forschungsgesellschaft m.b.H.
Type:	Raising awareness and information

Content:	Gender in research content
	
	A guideline on how to achieve gender-sensitive research by considering aspects of gender throughout the whole research project.
	
	   − The importance of aspects of gender and sex in research
	   − Definition of gender
	   − Integrating aspects of sex and gender into research

Focus:	Gender
Subject areas:	No specific focus
Phrasing:	Moderate Use of terms related to gender studies including e.g. sex, gender, aspects of gender and gender-sensitive research. To provide a theoretical framework, all but one term are defined and explained within the text. The explanations and definitions are easy to understand without background knowledge in gender studies. All sources are cited for further information.
Structure:	Moderately diverse elements *Guidelines* - for researchers regarding the integration of gender aspects into research designs and how to choose the right methods of gender analysis *Example of gender sensitive research* − "FEMroute" project *Further readings*
Usability:	Medium A table of contents, divided into sections and subsections, can be found at the beginning of the paper. Accentuated and colored headlines, bullets and bold words structure the text. Pictures make the paper visually more appealing.
Language:	German
Gender model:	Use of binary gender model.

Intersectionality:	Aspects of intersectionality are considered. Intersectionality is explained in context of the importance to differentiate between sex and gender.
Other:	/

3.2 Tools for specific scientific fields:

Title:	
3.2.1 Online training course – sex and gender in research	
http://www.cihr-irsc-igh-isfh.ca/course/index.php?lang=en	
Form:	Website Developed by the Canadian Institutes of Health Research.
Type:	Raising awareness and information

Content:	Gender in research content
	
	Interactive modules designed to improve the ability of health researchers and peer-reviewers to account for and appropriately assess sex and gender in research involving analysis of data from human participants.
	
	  – Sex and gender in biomedical research
	     1. Recognize nomenclature used for sex and gender in science
	     2. Identify methods to conduct sex and gender in science
	     3. Critically appraise the integration of sex and gender in protocols and publications
	
	  – Sex and gender in primary data collection with humans
	     1. Define and distinguish between sex-related and gender-related variables using data from human participants
	     2. Apply methods for conducting a sex and gender-based analysis using data from human participants
	     3. Critically appraise the integration of sex and gender in the data analysis plan of research using data from human participants
	
	  – Sex and gender in the analysis of data from human participants
	     1. Define and distinguish between sex and gender-related variables in a health research context
	     2. Identify methods for integrating sex and gender in research involving primary data collection with human participants
	     3. Critically appraise the integration of sex and gender in protocols and publications

Focus:	Gender
Subject areas:	Biomedical research
Phrasing:	Moderate Use of gender studies related terms including gender and sex. To provide a theoretical framework, terms are explained within the objective video. Sources are cited.

Structure:	Highly diverse elements
	Interactive modules - for researchers, peer reviewers and students to expand their knowledge.
	Consisting of:
	Quiz – Objectives
	Test - before and after doing the interactive module
	Information text - additional information
	Certificate of completion
	Interactive module – introduction, objectives and conclusion
	Guideline – integrating sex and gender in research
Usability:	High
	Course objectives are stated in the introduction. Accentuated and colored head-lines, bullets and bold words structure the text.
	Pictures and pictograms make the interactive module visually more appealing. Hyperlinks connect the interactive module to sources and additional information. Questions in both tests are easy to understand. To prevent confusion key words are bold and the rating system regarding some questions is explained. After completing the test and quiz, correct answers are shown as well as explained.
Language:	English
Gender model:	Use of non-binary gender model – men, women, gender diverse people
Intersectionality:	Aspects of intersectionality are not considered.
Other:	It is necessary to create an account to complete the modules and thus gain access to the information.

Title: 3.2.2 Gender and Inclusion Toolbox - Participatory Research in Climate Change and Agriculture https://cgspace.cgiar.org/bitstream/handle/10568/45955/CCAFS_Gender_Toolbox.pdf?sequence=7	
Form:	Paper (213 pages) Developed by the CGIAR research program on Climate Change Agriculture and Food Security (CCAFS), CARE and the International World Agroforestry Centre (ICRAF).
Type:	Tool

Content:	Gender in institutions and aspects of research content
	
	The objective of the Toolbox is to support program designers and field practitioners in doing gender sensitive and socially inclusive research. Only a limited section of the tool is focused on a gender perspective in research.
	
	   – **Basic concepts of gender**, climate change, participation, qualitative research, and **gender and social analysis p.2**
	   – Team-based learning and reflection activities
	   – **Logistics and planning guide supporting sampling strategy, sex-disaggregation, and field work best practices p. 75**
	   — Participatory research tools for socially differentiated data collection and analysis
	   — Best practices for data collection

Focus:	Gender and diversity
Subject areas:	Climate change Agriculture
Phrasing:	Moderate Use of terms related to gender studies including e.g. sex, gender, gender analysis, sex-disaggregated data and gender roles. To provide a theoretical framework, terms are defined and explained within the text as well as in a separate glossary. The explanations and definitions are comprehensive and easy to understand without background knowledge in gender studies. All sources are cited for further information.
Structure:	Moderately diverse elements *Questionnaire* - for inexperienced researchers regarding classic gender analysis questions *Glossary* – e.g. gender, sex disaggregated data, sex and gender roles *Learning exercises* - for researchers concerning topics like e.g. difference between sex and gender or climate change and gender

Usability:	High A table of contents, divided into sections and subsections, can be found at the beginning of the paper. Hyperlinks connect each headline to the table of contents. Chapters are clearly separated from each other by cover pages including pictures. One color is used to highlight each chapter. These colors are taken up in the footer, which shows the current chapter. Accentuated and colored headlines, bullets and tables structure the text. Graphs and charts are big enough to read and presented horizontally, which is convenient if the paper is read online. A variety of visualizations can be found throughout the paper. Pictures and pictograms make the paper visually more appealing.
Language:	English
Gender model:	Use of binary gender model.
Intersectionality:	Aspects of intersectionality are considered – "Gender inequality intersects with other forms of inequality for example class, ethnicity, sexuality etcetera. Social differences relating to gender are "learned, and though deeply rooted in every culture, are changeable over a lifetime or generations, and have wide variations both within and between cultures. Gender, along with other factors such as wealth and ethnicity, often determines the rights, roles, opportunities, power, access to and control over resources for women and men in any culture."
Other:	The program and manual have not been peer reviewed. Pictures within the paper show demographic diversity.

Title:	
3.2.3 Genderaspekte in der Forschung. Zielgruppenorientierung und Nutzungskontexte	
https://www.ffg.at/sites/default/files/allgemeine_downloads/strukturprogramme/tal_informationen_gender-aspekte_forschung2.pdf	
Form:	Paper (5 pages) Written by FFG – based on another publication by Frauenhofer- Gesellschaft.
Type:	Raising awareness and information
Content:	Gender in research content Guideline regarding the inclusion of gender aspects into the research process of inventing new products and technologies. – Aspects of gender – How to identify gender aspects? – Gender relevant aspects of research
Focus:	Gender and diversity
Subject areas:	Technical science
Phrasing:	Moderate Use of terms related to gender studies including e.g. aspects of gender, gender-sensitive methods. To provide a theoretical framework, terms are explained within the text. Sources regarding the explanations are not cited.
Structure:	Moderately diverse elements *Guideline* - for researchers regarding the integration of gender aspects into research *Questionnaire* - for researchers concerning the recognition of gender aspects
Usability:	Low No table of contents or abstract at the beginning of the paper. Headlines are bold and bullets structure the text.
Language:	German
Gender model:	Use of binary gender model.
Intersectionality:	Aspects of intersectionality are not considered.
Other:	/

<table>
<tr><td colspan="2">Title:

3.2.4　Gender Basic

http://www.genderbasic.nl/recommendations/</td></tr>
<tr><td>Form:</td><td>Website and scientific papers

Developed by the Centre for Gender and Diversity.</td></tr>
<tr><td>Type:</td><td>Raising awareness and information</td></tr>
<tr><td>Content:</td><td>Gender in research content

The objective of Gender Basic is to ensure a better integration of the gender dimension in basic life sciences research. The Gender Basic team elaborated recommendations regarding gender dimensions in research.

− How to integrate aspects of gender into research processes?
− Scientific papers that have been published based on an expert meeting
− Promoting attention to the gender dimension in health research: experiences from three centers of excellence in the EU</td></tr>
<tr><td>Focus:</td><td>Gender</td></tr>
<tr><td>Subject areas:</td><td>Biomedical research
Health</td></tr>
<tr><td>Phrasing:</td><td>Difficult
Use of terms related to gender studies including e.g. sex, gender, gender-sensitive tools and gender-sensitive methods.
Terms are neither defined nor explained.</td></tr>
<tr><td>Structure:</td><td>Single element

Information text - recommended actions for researchers focusing on sex and gender aspects in research content as well as research processes and methodologies

Information text - collection of papers and related power-point presentation from an Expert Meeting in 2007 on the integration of sex and gender in (basic) life sciences research. Focusing on gender and - anxiety disorders, asthma, metabolic syndrome, nutrigenomics, osteoporosis, and work-related health.

Information text – Interviews with researchers. Focusing on the question: How do the interview partners experience the process of integrating the gender dimension in their research activities?

Further readings</td></tr>
</table>

Usability:	Medium The website features an index. A search function is provided but does not work. Hyperlinks connected to review papers do not work. Bold headlines and bullets structure the text.
Language:	English
Gender model:	Use of binary gender model.
Intersectionality:	Aspects of intersectionality are considered – "The impact of other exposures, such as socioeconomic variables, on health problems should be examined differentially for men and women, and should be critically analysed from a gender perspective."
Other:	/

Title:	
3.2.5 Gendered Innovations http://genderedinnovations.stanford.edu/index.html	
Form:	Website Initiated at Stanford University. Joined by the European Commission and the U.S. National Science Foundation.
Type:	Tool
Content:	Gender in institutions and aspects of research content The goal of the Gendered Innovations project is to provide scientists and engineers with practical methods for sex and gender analysis. To match the global reach of science and technology, methods of sex and gender analysis were developed through international collaborations. – **Terms providing a conceptual foundation for understanding methods of sex and gender analysis** – Gender bias – **State-of-the-art methods of sex and gender analysis** – **Gender-responsible science and technology** – Institutional transformation – Policy recommendations – **Integrating gender and inclusivity into design** – **Analyzing sex and gender in each step of the research process** – **Analyzing factors intersecting with sex and gender**
Focus:	Gender
Subject areas:	Environment Engineering Health and medicine Biomedicine Urban Planning
Phrasing:	Moderate Use of terms related to gender studies including e.g. sex, gender, intersectionality, feminism, gender dimensions and intersex. To provide a theoretical framework, terms are defined and explained in a separate glossary. The glossary is comprehensive and easy to understand without background knowledge in gender studies. All sources are cited for further information.
Structure:	Highly diverse elements *Videos* – sex and gender interact, women and gender in science, harnessing the creative power of gender analysis to create new knowledge, case studies, student videos and explore gender design and inclusivity *Information text* – methods for researchers regarding research priorities and outcomes, formulating research questions, analyzing gender, the usage of language,

	visual representation, problems to avoid in research concerning analyzing sex and gender, overemphasizing sex differences and practical steps for researchers concerning the incorporation of sex and gender analysis into participatory research *Gender sensitive case studies* *Ideas for new gender sensitive case studies* *E-library* *Checklists* - for researchers e.g. age and sex in drug development, gender and engineering, health and medicine, SABV (sex as a biological variable) in biomedicine, tissues and cells, urban planning and design, standards and reference models and language in research *Questionnaires* - for researchers regarding e.g. the analysis of the significance (if any) of sex and gender *Guidelines* - for researchers e.g. analyzing sex or investigating how sex and gender interact *Graphs* – e.g. research and development processes and interaction of sex and gender
Usability:	High The website features an index, divided into sections and subsections as well as a search function. Pictures make the website visually more appealing. Accentuated and colored headlines as well as underscored, bold or italic words and bullets structure the text. Hyperlinks connect terms related to gender studies to a separate glossary as well as examples to according case study. Checklists provide a step by step guide for researchers. Diagrams illustrate more complex information.
Language:	English German Korean Spanish Swedish Taiwanese
Gender model:	Use of non binary gender model – mention of a third gender, intersex and various gender identities.
Intersectionality:	Aspects of intersectionality are considered – "It is important to analyze sex and gender but examining how other factors intersect with sex and gender is also necessary (Hankivsky et al., 2008). These factors or variables can be biological, socio-cultural, or psychological aspects of users, customers, experimental subjects, or cells. These factors include but are not limited to: genetics, age, sex hormones, reproductive status, body composition, co-morbidities, body size, disabilities, ethnicity, nationality, geographic location, socioeconomic status, educational background, sexual orientation, religion, lifestyle, language, family configuration and environment."
Other:	/

Title:	
### 3.2.6 Gender-Toolboxen http://www.gffz.de/gender-in-die-lehre-der-mint-faecher/willkommen/gender-toolboxen/	
Form:	Website Developed by gFFZ – Gender- und Frauenforschungszentrum der hessischen Hochschulen, Frankfurt University of Applied Sciences.
Type:	Information
Content:	Gender in institutions and limited aspects of research content Classification and description of various English and German gender and diversity toolkits. German tools: – Toolbox gender and diversity in education – (GeniaL) Gender und Diversity in education and research – Gender equality in university curricula – Guideline for gender sensitive teaching – Genderportal English tools: – **GARCIA (p. 18)** – **Gendered Innovations (p. 34)**
Focus:	Gender and diversity
Subject areas:	Education Engineering
Phrasing:	Moderate Use of terms related to gender studies including e.g. gender sensitive language, intersectionality and non binary. Terms are not defined within the text but linked to each tool, where they were used.
Structure:	Single element *Information text* - list of various toolkits for researchers and educators.
Usability:	Medium Tools are arranged chronologically and English tools can be found at the bottom of the list. There is no table of contents or search function. Tools are arranged according to scientific fields but there are no comprehensible categories used by the authors to describe each tool. The categories e.g. phrasing or intersectionality vary from tool to tool. Screenshots, taken of each described tool, make the website visually more appealing. Bold headlines and words as well as bullets structure the text. Hyperlinks connect described tools to according website.

Language:	German
Gender model:	Use of binary gender model.
Intersectionality:	Aspects of intersectionality are considered – intersectionality is mentioned as part of three of the described tools.
Other:	/

Language:

German

Title:	
### 3.2.7 GERD Model – Gender Extended Research and Development http://www.informatik.uni-bremen.de/soteg/gerd/?action=modell	
Form:	Website Developed within the framework of the research project "InformAttraktiv - Informatik-Professorinnen für Innovation und Profilbildung. Eine Informatik, die für Frauen und Mädchen attraktiv ist", University of Bremen.
Type:	Tool

Content:	Gender in research content
	
	The "Gender Extended Research and Development" (GERD) model combines approaches of gender studies and computer science. The GERD model shows possibilities to implement aspects of gender and diversity into computer science. Another aim is to encourage researchers to reflect upon the connection between their research and society.
	
	  − Connecting factors between gender and diversity studies and computer science
	  − Challenges of implementing aspects of gender and diversity studies into computer science
	  − Differentiation and critical reflection of research

Focus:	Gender and diversity
Subject areas:	Computer science
Phrasing:	Difficult Use of terms related to gender studies including e.g. gender, sex, gender and diversity dimension, gender stereotypes and gender sensitive language. Terms are neither defined nor explained.
Structure:	Moderately diverse elements *Paper* - GERD model (94 pages, only available in German) *Graph* – GERD model *Guideline* - for researchers regarding the use of the GERD model and concerning the reflection of their research *Questionnaires* - for researcher regarding evaluation, implementation, conceptual design, research design, analysis, initiation and transfer of knowledge *Information text* - examples of the GERD model in use focusing on transfer of knowledge, evaluation, implementation, conceptual design, research design, analysis and initiation

Usability:	Medium The website features an index, divided into sections and subsections. Each phase of the model is colored differently. Headlines are bold and bullets structure the text. Hyperlinks connect phases to the base model as well as to the reflection catalogue. Each phase is linked to aspects of reflection. A quarter of all these aspects mentioned in the model lacks content, which is stated to be "not yet available". Since the tool is not yet completely ready to use it is rated medium, despite the fact of its otherwise high usability.
Language:	German
Gender model:	Use of binary gender model.
Intersectionality:	Aspects of intersectionality are considered – recommendation to consider social, socioeconomic or hierarchic aspects in the process of designing a study.
Other:	Not completely finished. The title of the project "InformAttraktiv" could be interpreted as being beneficial to a stereotype due to the connection of attractivity and women/girls. Additionally, due to the capitalization of the project name, the first part "Inform" means "in shape" which could also be linked to the context of a normative feminine attractivity.

Title:	
3.2.8 LIBRA - Unifying innovative efforts of European research centers to achieve gender equality in academia. https://www.eu-libra.eu/work-packages/integrate-sex-gender-dimension-research	
Form:	Website LIBRA is a project funded by the European Commission. Ten European research institutes work together as members of the alliance EU-LIFE.
Type:	Raising awareness and information
Content:	Gender in institutions and limited aspects of research content The project aims among others to raise awareness regarding the integration of the dimension of sex and gender into all phases of research. Only a limited section of the website is focused on a gender perspective in research. − Assess gender equality − Tailor gender equality plans − Recruit without gender bias − Support career development − Improve work-life balance in academia − **Integrate sex and gender dimensions in research**
Focus:	Gender
Subject areas:	Health (Bio) medical research
Phrasing:	Moderate Use of terms related to gender studies including e.g. gender, sex, gender/sex analysis, gender dimension and sex dimension. To provide a theoretical framework, some terms are explained within the information text. The used sources are not cited. The remaining terms are explained in provided videos, but not within the information text.
Structure:	Moderately diverse elements *Videos* - the concerted effort to include sex and gender in (bio)medical research, sex and gender dimension of studying early cancer development and the sex of organs and why it matters. *Examples of gender sensitive biomedical research case studies* − featuring interviews of scientist to further the understanding of the issue and to inspire other researchers to consider sex and/or gender in their research.
Usability:	Medium The website features an index, divided into sections and subsections. Headlines are bold and bullets structure the text.
Language:	English

Gender model:	Use of binary gender model.
Intersectionality:	Aspects of intersectionality are not considered.
Other:	/

Title:	
3.2.9 PLOTINA - Promoting gender balance and inclusion in research, innovation and training https://www.plotina.eu/	

Form:	Website Plotina has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement (G.A NO 666008).
Type:	Raising awareness and information

Content:	Gender in institutions and aspects of research content
	
	The Plotina project aims to stimulate a gender-aware culture change; promote career-development of both female and male researchers to prevent the waste of talent, particularly for women and ensure diversification of views and methodologies (in this case by taking into account the gender/sex dimension and analysis) in research and teaching.
	
	  − **Why is it important to include a gender dimension in scientific research?**
	  − **How to integrate gender aspects into research?**
	  − Implementation of gender equality policies and processes in organizations
	  − Integration of sex and gender dimension in teaching curricula
	  − Promoting diversity in research management

Focus:	Gender
Subject areas:	STEMM
Phrasing:	Moderate Use of terms related to gender studies including e.g. gender and sex. To provide a theoretical framework, terms are defined and explained in a separate glossary. The definitions used in the glossary are easy to understand without background knowledge in gender studies. All sources are cited for further information.
Structure:	Moderately diverse elements *Information text* – list of actions for researchers and organizations e.g. requiring calls for application to include sex and gender where relevant; requesting sex and gender variables in research planning, activity and results. However, only statements like "Developing, communicating and implementing standards for the incorporation of sex and gender analysis into basic and applied sciences" are noted, without further information on how to adapt these suggestions. *Video* - Why is it important to include a gender dimension in scientific research? *Glossary* – e.g. gender dimension, gender roles and intersectionality

Usability:	Low The website features an index, divided into sections and subsections. The provided search function doesn't work.
Language:	English
Gender model:	Use of non binary gender model. "An individual's internal sense of gender, which may or may not be the same as one's gender assigned at birth. Some gender identities are "woman," "transman" and "agender" but there are many more. Gender identities refer to how individuals and groups perceive and present themselves and how they are perceived by others […]"
Intersectionality:	Aspects of intersectionality are considered – "In relation to gender equality, intersectionality is an analytical tool for studying, understanding and responding to the ways in which sex and gender intersect with other personal characteristics/identities, and how these intersections contribute to unique experiences of discrimination. It starts from the premise that people live multiple, layered identities derived from social relations, history and the operation of structures of power. Intersectional analysis aims to reveal multiple identities, exposing the different types of intersectional and multiple discrimination and disadvantage that occur as a consequence of the combination of identities and the intersection of sex and gender with other grounds."
Other:	/

Title:	
3.2.10 Public Life Diversity Toolkit https://gehlinstitute.org/work/the-public-life-diversity-toolkit/	
Form:	Website The toolkit was developed by the Gehl Institute
Type:	Tool

Content:	Gender in research content
	
	The Public Life Diversity Toolkit contains new approaches to researching and designing for socio-economic diversity in public space. It is a resource for designers, planners, and others who are interested in making public spaces more open and inviting to people of different races, incomes, genders, religions, and ages.
	
	   – Why measure diversity in public life?
	   – Intercept survey
	   – Observational analysis
	   – Census for city streets

Focus:	Gender as one aspect of diversity
Subject areas:	Design Architecture Sociology
Phrasing:	Moderate No use of terms related to diversity studies. Only one term related to gender studies is used - gender identities. The term is neither defined nor explained. Because the use of terms mentioned above is very limited, the phrasing of the tool is categorized moderate.
Structure:	Highly diverse elements *Quiz* - for researchers questioning which public life tool is right for their project? *Further readings* *Video* – tools for measuring public life and using the public life tools *Guideline* - for researcher regarding the use of public life tools *Information text* - recommended actions for each tool *Templates* - for researchers to use in the research process, e.g. age and gender tally, participant survey *Examples of projects in which the tools were used* *Links to other beta phase or unfinished tools*

Usability:	High The website features an index, divided into sections and subsections. Pictures and pictograms make the website visually more appealing. Accentuated and colored headlines as well as underscored or bold words structure the text. A highlighted reminder to print tools double sided for correct use can be found for each tool. Each tool provides a section with main information such as focus, scale and examples. Hyperlinks connect tools to video guidelines.
Language:	Website: English and Spanish Tools: English
Gender model:	Use of non binary gender model – options of "gender nonconforming" and "other" in research templates. Recommendation to use participant surveys where users can report their own gender identity.
Intersectionality:	Aspects of intersectionality are considered – by using these tools researchers are required to focus not only on gender but also to collect information regarding age, ethnicity, socioeconomic status etc.
Other:	/

Title:	
### 3.2.11 Toolkit Gender in EU-funded research https://www.ki.si/fileadmin/user_upload/KINA24840ENC_002.pdf	
Form:	Paper (144 pages) The toolkit was developed by the European Commission.
Type:	Raising awareness and information

Content:	Gender in research content
	
	Practical guidance on how to integrate gender into research throughout the entire research project.
	
	– Gender in research
	– Gender-sensitive research
	– Gender and
	  health
	  food, agriculture and biotechnology
	  nanosciences, materials and new production technologies
	  energy
	  environment
	  transport
	  socio-economic sciences and humanities
	  science in society
	  specific activities of international cooperation

Focus:	Gender and diversity
Subject areas:	Health Food, agriculture and biotechnology Nanosiences, materials and new production technologies Energy Environment Transport Socio-economic sciences and humanities Science in society International cooperation
Phrasing:	Moderate Use of gender studies related terms including e.g. gender, sex, gender sensitive research, gender specific research, gender blind research and gender bias. To provide a theoretical framework, terms are defined and explained at the beginning of the paper. The given information regarding each term is easy to understand without background knowledge in gender studies but not very detailed. Sources are not cited.
Structure:	Moderately diverse elements *Checklist* - for researchers regarding the integration of gender aspects into research

	Graph – gender sensitive research circle *Information text* - recommended actions for researchers regarding the integration of gender dimensions into their research content; introduction of how gender is relevant in the specific field e.g. health, food, agriculture and furthermore specific topics of each field *Examples of gender sensitive research* – 27 projects *Further readings*
Usability:	Medium A table of contents, divided into sections and subsections, can be found at the beginning of the paper. Chapters are clearly separated from each other by a blank page. One color is used to highlight each chapter. Accentuated and colored headlines, bullets and bold words structure the text. The used graphs are big enough to read and presented horizontally, which is convenient if the paper is read online. The checklist is illustrated as an actual checklist with boxes to check. Pictures and pictograms make the paper visually more appealing.
Language:	English
Gender model:	Use of binary gender model.
Intersectionality:	Aspects of intersectionality are recognized but chosen not to be considered due to pragmatism.
Other:	/

Title:	
3.2.12 WOMENALSOKNOWSTUFF	
https://womenalsoknowstuff.com/	
Form:	Website The website is sponsored by the University of Arizona School of Government & Public Policy.
Type:	Information

Content:	Gender in institutions and aspects of research content
	
	The website's goal is to promote and publicize the work and expertise of scholars in political science who identify as women.
	The searchable database helps academics identify and connect with female academics, conducting research on a multitude of issues related to political science.
	
	    – Underrepresentation of women as experts in the academy and in media
	    – Writing syllabi and bibliographies
	    – Planning conferences, panels and speaker series
	    – Citing research
	    – Identifying experts for articles

Focus:	Gender
Subject areas:	Political science
Phrasing:	Easy No use of terms related to gender studies.
Structure:	Single element *Database* - of political scientists who identify as women. Can be used by researcher when writing bibliographies, syllabi or citing research.
Usability:	High The website features an index, divided into sections. A search function combined with an advanced search option is provided. FAQs – frequently asked questions – can be found. Underscored, bold or italic words and bullets structure the text.
Language:	English
Gender model:	Use of binary gender model.
Intersectionality:	Aspects of intersectionality are not considered.

Other:	Links provided to very similar tools: – Database of female scientists and experts, encompassing around 25 different areas of expertise, developed by the Austrian Research Promotion Agency -http://www.femtech.at/index.php?id=65&L=2 – Interdisciplinary database of women scientists from four central European countries established in the Czech Republic by the National Academy of Sciences - http://www.cec-wys.org/html/index.php?s1=1&s2=7&s3=2&lng=13 – Database developed in Germany by the Center for Excellence Women in Science (CEWS) contains information on several thousands of German-speaking women scientists - http://www.femconsult.de/femconsult/LuceneQuery?style=home – Database developed by the National Foundation for Australian Women (NFAW) in the framework of the Women on Boards programme, bearing information of women interested in filling board positions in private business- http://www.womenonboards.org.au/

4 Conclusion

Gender toolkits are one possibility to provide support in realizing Responsible Research and Innovation (RRI). 21 of such toolkits were categorized and examined in this analysis. These tools were divided into two different sections: The first section comprises tools, platforms and guidelines with no specific scientific focus whereas the second section examines tools, platforms and guidelines for specific scientific fields. Depending on their design and content, these two types of tools were assigned to different categories such as form, content, focus, subject areas, phrasing, structure, usability, gender model, intersectionality, etc. Real "tools" (according to our definition of a tool) were only one third of the analyzed materials. More than half of the materials were interpreted as raising awareness and information. The content of the majority of the tools either treats gender in research content or gender in institutions and aspects of research content. This means that the focus of most of the tools lies on the issue of gender in research which reflects the fact that gender is one of the main aspects in RRI. However, in half of the analyzed tools, gender is not perceived as one aspect of diversity, but rather as an aspect parallel to diversity, i.e. as a separate issue. 14 of the 21 tools make a moderate use of terms related to gender studies and 13 of the 21 tools are moderately diverse structured which means that they contain two to six different types of elements like, for example, informational text, guidelines, questionnaires, tests, quizzes, checklists, videos and interactive modules. The usability of a vast majority of the tools is medium or high. More than half of the analyzed tools use a binary gender model and do consider aspects of intersectionality in some form.

This analysis has thus shown that many of the tools are indeed useful to include gender as one aspect of RRI in research contexts. However, there is space for improvement – for example, concerning the gender model used in the tools or the treatment of diversity and intersectionality. Additionally, some tools lack usability due to their phrasing or structure. As noted in the introduction, some tools are not completely finished or miss updates. Feedback or evaluation from researchers on these guiding materials do not exist either. Nevertheless, these tools can be considered by researchers in need of support to include gender in their research.

5 Bibliographic references

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