

Gender Equality in Research: from the Academy to the Industry.

Gendering research, gendering organisations

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A gendered world

There are these two young fish swimming along and they happen to meet an older fish swimming the other way, who nods at them and says "Morning boys. How's the water?"

And the two young fish swim on for a bit, and then eventually one of them looks over at the other and goes "What the hell is water?"

- David Foster Wallace, 2005 commencement speech, Kenyon College

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Credits

*Who started gendering research projects?
Who is still doing it?*

Credits: the Pathfinders

- Gender in EU-funded research, FP7 project. Yellow Window Management Consultants, FP7 project
- <https://www.yellowwindow.com/genderinresearch>
- Gendered Innovations, Stanford University
- <http://genderedinnovations.stanford.edu/institutions/solutions.html>

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Credits: Current projects

- SAGE, GERI3, H2020, GERI-4-2015 - Support to research organisations to implement gender equality plans
- <http://www.sage-growingequality.eu/site/training>
- FIAGES, MSCA, H2020, IF 2017
- <https://www.tcd.ie/tcgel/international-projects/fiages.php>

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Health and medicine

Case studies based on concrete examples drawn from research fields. To help in understanding the advantages.

What do I get?

Overemphasizing Sex Differences as a Problem

De-Gendering the Knee

In 2007, an estimated 500,000 total knee arthroplasty (TKA) procedures were performed worldwide - about two-thirds in women. In the 1990s, with increased attention to women's health research, manufacturers began producing "**gender-specific**" knees, and marketing them directly to women. Does this lead to better healthcare quality?

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Overemphasizing Sex Differences as a Problem

De-Gendering the Knee (Gendered Innovation):

Sex may appear to be the most important variable in choosing a knee implant until height is considered. It is important to analyze sex differences before ruling them out. Many additional factors, however, influence outcomes in TKA, including **age, body composition, comorbidities, preoperative knee mobility, ethnicity, and surgeon or hospital volume.**

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Overemphasizing Sex Differences as a Problem

Conclusion

While studying sex differences is important, overemphasizing sex to the exclusion of other intersecting factors can lead to problematic outcomes.

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Engineering

Case studies based on concrete examples drawn from research fields. To help in understanding the advantages.

What do I get?

Exploring Markets for Assistive Technologies for the Elderly

The world population will age dramatically by 2050, a problem especially for Japan, Europe and the U.S.

Large elderly populations will place a growing strain on human caregivers as well as health and social systems.

This case study explores the value added of **considering both sex and gender when designing Assistive Technologies for the Elderly.**

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Exploring Markets for Assistive Technologies for the Elderly

When developing these technologies, it's important to look at:

- **sex differences.** Women for example live longer, but may have more debilitating disease; men, for example, lose their hearing earlier;
- **gender differences:** as they age, women and men have different partnering patterns, men and women have different experience in household management, and elderly men and women have different receptivity to technology.

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Exploring Markets for Assistive Technologies for the Elderly

Gendered Innovations:

Considering **sex and gender** when designing new assistive technologies will be **ONE** important factor to ensure that the products are successful with all users.

1. Assessing women's and men's needs for assistive technologies.
2. Developing assistive technologies considering women's and men's needs.
3. Using participatory design to create the next generation of assistive technology.

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Case studies (Gendered Innovations)

<p>Health and Medicine</p> <ul style="list-style-type: none"> Colorectal cancer De-gendering the knee Dietary assessment method Hearth disease in women Nanotechnology-based Screening for HPV Nutrigenomics Osteoporosis research in men 	<p>Engineering</p> <ul style="list-style-type: none"> Assistive Technologies for the Elderly Gendering Social Robots Haptic Technology HIV Microbicides Human Thorax Model Information for Air Travellers Machine Learning Machine Translation Making Machines Talk Pregnant Crash Test Dummies Video Games 	<p>Science</p> <ul style="list-style-type: none"> Animal research (several examples) Genetics of Sex Determination Stemcells
<p>Environment</p> <ul style="list-style-type: none"> Climate change Gender Mainstreaming in Decision-Making Environmental Chemicals Housing and Neighbourhood Design Menstrual Cups Public Transportation Water Infrastructure 		

<http://genderedinnovations.stanford.edu/fix-the-knowledge.html>

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Case studies (Yellow Window)

Module 2

Field 1 Health	Field 2 Food, agriculture and biotechnology	Field 3 Nanosciences, nanotechnologies, materials, new production technologies
Field 4 Energy	Field 5 Environment	Field 6 Transport
Field 7 Socio-economic science and humanities	Field 8 Science in society	Field 9 Specific activities of international cooperation

<https://www.yellowwindow.com/genderresearch>

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Capacity Building

How to make research gender sensitive,
how to promote gender balance.
Capacity-building.
How can I do it?

Gender equality in two aspects

- **Equal opportunities in research**
 - Encourage equal participation of men and women in research teams at all levels
 - Create working conditions and culture that allow men and women to have equally fulfilling careers
- **Gender in research content**
 - Address both women's and men's realities
 - Consider gender – specific research to fill knowledge gaps
 - Integrate previous research's contents in new research paths

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Research cycle

- **Preliminary phase**
 - Know the field
 - Research idea
- **Writing the proposal**
 - Compliance with Programme/State of the art/
 - Research activities
 - Communication
 - Dissemination
 - Exploitation
 - Evaluation

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Research cycle: gender equality, equal opportunities

Research cycle	Equal opportunities
<ul style="list-style-type: none"> * Preliminary phase <ul style="list-style-type: none"> • Know the field • Research idea * Writing the proposal <ul style="list-style-type: none"> • Compliance with Programme/ State of the art/ • Research activities • Communication • Dissemination • Exploitation • Evaluation 	<ul style="list-style-type: none"> * Preliminary phase <ul style="list-style-type: none"> • Cultivate contacts with both men and women • Create a mixed network of collaborators • Plan gender-equal working conditions * Writing the proposal <ul style="list-style-type: none"> • Involve men and women in writing the proposal • Select a mixed team • Manage and monitor gender equality • Value women's and men's work equally

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Research cycle: Gendering a research project

Research cycle	Gendered content
<ul style="list-style-type: none"> * Preliminary phase • Know the field • Research idea * Writing the proposal • Compliance with Programme/ State of the art/ • Research activities • Communication • Dissemination • Exploitation • Evaluation 	<ul style="list-style-type: none"> * Preliminary phase • Be aware of gender in your research fields • Reflect on gender sensitive aspects in your idea • Make research hypotheses gender-sensitive * Writing the proposal • Formulate gender-sensitive research questions • Choose a gender sensitive methodology • Collect gender-sensitive data • Analyse and report data in a gender sensitive way • Use gender-impartial language (degender/ regender)

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Research Ideas Phase

- If the research involves humans as research objects, has the relevance of gender to the research topic been analysed?
- If the research does not directly involve humans, are the **possibly differentiated relations of men and women to the research subject** sufficiently clear?
- **Have you reviewed literature and other sources relating to gender differences in the research field?**

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Proposal Phase

- Does the methodology ensure that (possible) gender differences will be investigated: that **sex/gender-differentiated data will be collected and analysed throughout the research cycle** and be part of the final publication?
- Have possibly differentiated **outcomes and impacts** of the research on women and men been considered?
- Does the proposal explicitly and comprehensively explain how gender issues will be handled (e.g. in a **specific work package**)?

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Research Phase

- Are questionnaires, surveys, focus groups etc. designed to unravel potentially relevant sex and/or gender differences in your data?
- Are the groups involved in the project (e.g. samples, testing groups) gender balanced?
- Are data analysed according to the sex/gender variable?
- Are other relevant variables analysed with respect to sex/gender?

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Dissemination Phase

- Do analyses present **statistics, tables, figures** and descriptions that focus on the relevant gender differences that came up in the course of the project?
- Are **institutions, departments and journals** that focus on gender included among the target groups for dissemination, along with mainstream research journals?
- Have you considered a **specific publication or event** on gender-related findings?

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Achievements

- Understanding of the multiple meaning of the term "gender" and of the meaning applicable in your research
- Understanding of "gender" as a social construct
- Gender is not a "women's issue"
- Understanding of the link between "gender" and "diversity"
- Understanding why gendering the research contributes to the quality of the research

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Strengthening advocacy skills

Introduction into gender and/in research

Why should I do it? How to convince others?

Gender balance, gender equality

1. women have a "quid" that unites them, and that therefore there is a female point of view, different from the male one, which too often is not given space
- the omission of voices, experiences, women's skills is a particular aspect of a general problem, namely the lack of "diversity".
 - **From any point of view, a work group made up of men (or women) alone can represent a problem**

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Gender balance: why?

Image from: <https://www.pasteur.fr/en/institut-pasteur/history>



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Equal opportunities

- Is there a gender balance in the project consortium and team, at all levels and in decision-making positions?
- Do working conditions allow all members of staff to combine work and family life in a satisfactory manner?
- Are there mechanisms in place to manage and monitor gender equality aspects?

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Premises

- <https://esvid.net/video/understanding-gender-dimension-for-msca-projects-Hq4eWo3oRfY.html>
- 8'06"



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Premises

Gender is understood as a constitutive element of social relations based upon perceived (socially constructed and culturally variable) differences between women and men, and as a primary way of signifying (and naturalizing) relationships of power and hierarchy. (Hawkesworth, 2005; Scott, 1986)

Gender, therefore, not only operates at the level of the subjective/ interpersonal (through which humans identify themselves and organize their relations with others); but is also a feature of institutions and social structures, and a part of the symbolic realm of meaning-making, within which individual actors are 'nested'. (Mackay, Kenny and Chappell, 2010)

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Premises

To say that an institution is gendered means that constructions of masculinity and femininity are intertwined in the daily life or logic of political institutions rather than 'existing out in society or fixed within individuals which they then bring whole to the institution' (Kenney, 1996)

Gender is a fundamental element of organisational structure and worklife (Britton, 2000)

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Premises

"Degendering" and "regendering/ engendering ". the use of the two terms can refer to different theoretical perspectives, which may envisage changes in discourse and society related to opposing perspectives, such as the constructivist and the essentialist ones. (Bencivenga, 2014; Nielsen, 2017)

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Multiple perspectives

*They say I looked back out of curiosity.
But I could have had other reasons.
I looked back mourning my silver bowl.
Carelessly, while tying my sandal strap.*

...
Checking for pursuers.

...
*I looked back in desolation.
In shame because we had stolen away.
Wanting to cry out, to go home.*

...
I looked back in anger.

...
I looked back for all the reasons given above...

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• *Wisława Szymborska, 2003, Lot's Wife*

fiages

Feminist
Institutionalist
Approach to
Gender
Equality in
Stem



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