Integració de la dimensió de sexe/gènere a la investigació

BSC & Gendered Innovations

The Barcelona Supercomputing Center is collaborating with the Gendered Innovations at Stanford University, funded by the European Commission and the National Science Foundation. The objective is to enhance sex, gender, and intersectional analysis (SG&IA) in research and stimulate gender-responsible science and technology, thereby enhancing the quality of life for women, men, and non-binary people worldwide.

All the materials are part of the Gendered Innovations Project led by Londa Schiebinger, John L. Hinds Professor of History of Science at Stanford University and Director of the EU/US Gendered Innovations in Science, Health & Medicine, Engineering, and Environment Project: http://genderedinnovations.stanford.edu/what-is-gendered-innovations.html

Objectives

1) develops practical methods of sex, gender, and intersectional analysis for scientists and engineers;

2) provides case studies and project examples as concrete illustrations of how sex, gender, and intersectional analysis lead to innovation and better science.

Mission

? Add value to research and engineering by ensuring excellence and quality in outcomes and enhancing sustainability.

? Add value to society by making research more responsive to social needs.

? Add value to business by developing new ideas, patents, and technology.

Actions

- SG&IA course for Ph.D. BSC students using the Gendered Innovations website or Intersectional Design Cards.
- Workshops for researchers focus on Principal investigators (PI) on how to avoid sex and gender bias in science and develop their project tools to introduce sex, gender, and intersectional analysis.
- Research groups in all the departments to share and define new resources based on Gendered Innovations methods and case studies.
- Scientific Seminars to present research being conducted within the BSC and also with invited researchers in the STEM field.
- Define indicators for projects on how to introduce SG&IA analysis for BSC research projects with recommendations from Gendered Innovations.

We invite you to participate in the interdisciplinary research group on sex and gender perspectives in BSC. We are working between all the departments to expand case studies and projects that applied this perspective in science.

Background Stanford

Gendered Innovations was initiated at Stanford University, July 2009. From 2011-2013, the European Commission funded an Expert Group, "Innovation through Gender/Gendered Innovations" under their Framework Programme 7, aimed at developing the gender dimension in EU research and innovation. The U.S. National Science Foundation joined the project January 2012. From 2018-2020, the Horizon 2020 Expert Group, Gendered Innovations (G12), updated and expanded the Gendered Innovations methods and case studies.

To match the global reach of science and technology, the case studies and methods of sex and gender analysis were developed through international collaborations. More than 200 experts from across Europe, the United States, Canada, and Asia participated in a series of peer-reviewed, interdisciplinary workshops and collaborations.

Terms

Sex refers to biology. In humans, sex refers to the biological attributes that distinguish male, female, and/or intersex. In non-human animals, sex refers to biological attributes that distinguish male, female, and/or hermaphrodite. In engineering & product design research, sex includes anatomical and physiological characteristics that may impact the design of products, systems, and processes.

Gender refers to sociocultural norms, identities, and relations that: 1) structure societies and organizations; and 2) shape behaviors, products, technologies, environments, and knowledges (Schiebinger, 1999). Gender attitudes and behaviors are complex and change across time and place. Importantly, gender is multidimensional (Hyde et al., 2018) and intersects with other social categories, such as sex, age, socioeconomic status, sexual orientation and ethnicity (see Intersectional Approaches). Gender is distinct from sex (Fausto-Sterling, 2012).

Intersectionality describes overlapping or intersecting forms of discrimination related to gender, sex, ethnicity, age, socioeconomic status, sexuality, geographic location, disabilities, etc. Researchers and engineers should not consider gender in isolation. Gender identities, norms and relations both shape and are shaped by other social attributes (Buolamwini & Gebru, 2018).

In 1989, legal scholar Kimberlé Crenshaw coined the term intersectionality to describe how multiple forms of discrimination, power, and privilege intersect in Black women's lives, in ways that are erased when sexism and racism are treated separately (Crenshaw, 1989). Since then, the term has been expanded to describe intersecting forms of oppression and inequality emerging from structural advantages and disadvantages that shape a person's or a group's experience and social opportunities (Hankivsky, 2014; Collins & Bilge, 2020; McKinzie & Richards, 2019; Rice et al., 2019).

Race & Ethnicity "Race" and "ethnicity" are complex terms and often used interchangeably. These terms were initially separated to designate "race" as a biological quality and "ethnicity" as a cultural phenomenon. This distinction mirrors efforts to distinguish sex and gender. Unlike "sex" and "gender," however, there is little agreement on core distinctions between race and ethnicity.

Race is a powerful social category forged historically through oppression, slavery, and conquest. Most geneticists agree that racial taxonomies at the DNA level are invalid. Genetic differences within any designated racial group are often greater than differences between racial groups. Most genetic markers do not differ sufficiently by race to be useful in medical research (Duster, 2009;Cosmides, 2003).

Ethnicity denotes groups, such as Irish, Fijian, or Sioux, etc., that share a common identity-based ancestry, language, or culture. It is often based on religion, beliefs, and customs as well as memories of migration or colonization (Cornell & Hartmann, 2007). In scientific analysis, it can be important to distinguish, however loosely, between race and ethnicity. Biological anthropologist Fatimah Jackson (2003) provides a pertinent example of cultural practices being misread as biological differences. Microethnic groups living in the Mississippi Delta, she writes, use sassafras in traditional cooking. Sassafras increases susceptibility to pancreatic cancer. Medical practitioners who do not carefully disaggregate cultural and biological traits might interpret a geographic cluster of pancreatic cancer as related to a genetic or racial trait when, in fact, the disease is produced by cultural practices—in this case, shared culinary habits.

More information: http://genderedinnovations.stanford.edu/terms.html

Methods of Sex, Gender, and Intersectional Analysis

General Methods

Rethinking Research Priorities and Outcomes

Rethinking Concepts and Theories

Formulating Research Questions

Analyzing Sex

Analyzing Gender

Analyzing how Sex and Gender Interact

Intersectional Approaches

Engineering Innovation Processes

Co-creation and Participatory Research

Rethinking Standards and Reference Models

Rethinking Language and Visual Representations

Field Specific Methods

Analyzing Gender in Health & Biomedicine

Analyzing Sex in Tissues & Cells

Analyzing Sex in Lab Animal Research

Analyzing Sex in Biomedicine

Gender-Aware Guidelines

Analyzing Gender and Intersectionality in Machine Learning

Analyzing Gender and Intersectionality in Social Robotics

Analyzing Sex in Hermaphroditic Species

Gender Impact Assessment

Norm-Critical Innovation

More information: http://genderedinnovations.stanford.edu/methods-sex-and-gender-analysis.html

Resources:

Gendered Innovations Project: http://genderedinnovations.stanford.edu/index.htm l

Gendered Innovations 2: How Inclusive Contributes to Research and innovation: https://ec.europa.eu/info/sites/default/files/research_and_innovation/strategy_on_research_and_innovation/document

Fostering Responsible Computing Research https://nap.nationalacademies.org/catalog/26507/fostering-responsible-computing-research-foundations-and-practices

NIH Policy on Sex as a Biological Variable https://orwh.od.nih.gov/sex-gender/nih-policy-sex-biological-variable

Bench to Bedside: Integrating Sex and Gender to Improve Human Health Course https://orwh.od.nih.gov/career-development-education/e-learning/bench-bedside

Methods & Techniques for Integrating Sex into Research https://orwh.od.nih.gov/sex-gender/methods-techniques-integrating-sex-research

ORWH Courses https://orwh.od.nih.gov/orwh-courses

EIGE Sex-disaggregated data GENDER MAINSTREAMING TOOL https://eige.europa.eu/gender-mainstreaming/methods-tools/sex-disaggregated-data

Inclusion of Women and Minorities as Participants in Research Involving Human Subjects https://grants.nih.gov/policy/inclusion/women-and-minorities.htm

Source: https://orwh.od.nih.gov/sex-gender/nih-policy-sex-biological-variable

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