

Elsevier Inclusion and Diversity Advisory Board

Making progress towards a more inclusive research ecosystem

2020 - 2021 Report



ELSEVIER

March 2022
A summary of initiatives supported by the Board

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An inclusive culture exists when colleagues feel valued and feel safe to speak up with new ideas and ways of doing things. An inclusive environment is key in enabling diversity. It is an environment where differences are embraced, including different ages, gender identities, races, ethnicities, religions, sexual preferences, physical abilities, experiences, viewpoints, perspectives, and strengths.

We know that inclusive and diverse teams enhance innovation, productivity, and decision-making and help create an environment where everyone has an equal opportunity to succeed.

This report summarizes Elsevier's efforts to positively impact inclusion & diversity in the research community, which were supported by the I&D Advisory Board in the last 2 years. The focus of these efforts were the people participating in research and publishing, the manner in which research is conducted and reported, and the breadth and depth of the research itself. Our mission is to help researchers and healthcare professionals advance science, solve the world's problems and improve health outcomes for the benefit of society in order to achieve a more equitable and sustainable world.



The Inclusion & Diversity Advisory Board Mission

As a global leader in scientific publishing, research and health information and data analytics, Elsevier is committed to enhancing inclusion and diversity in academic research across gender, race and ethnicity, and geographic dimensions and to ensuring that research is conducted and reported in the most equitable and inclusive manner possible.

We work in partnership with stakeholders to advance inclusion and diversity, and to help address inequalities, in the research and health communities that we serve by:

- Working with research leaders, funding bodies and higher education institutions to drive equity for individuals on the STEM academic career path, focusing on gender, race and ethnicity.
- Working with academics, publishers, and funders to promote greater gender, racial, ethnic and geographic diversity in Editorial Boards, peer review and scientific conferences while supporting opportunities to publish and participate in research.
- Promoting inclusion and diversity best practices to help foster diverse and inclusive future generations of STEM graduates.
- Encouraging the factoring of diversity into the design, analyses and reporting of research studies.
- Producing evidence and analyses to identify gender- and diversity-related inequalities and gaps in science knowledge making

In March 2020, Elsevier established the **I&D Advisory Board**, together with a group of leading academic researchers and scientists from around the world who have been proponents of social equity, inclusion and diversity throughout their distinguished careers.

The mission of the Board is to create a more equitable research ecosystem by:

- Influencing and improving gender, racial and ethnic diversity and inclusion, and geographic representation **in academic research, e.g. across Editorial Boards and peer review.**
- Helping set standards and best practices for incorporating **I&D principles in scientific research.**
- Driving I&D initiatives that impact **career progression in academia** of underrepresented groups.

Further information about the Elsevier Inclusion & Diversity Advisory Board can be found [on the Elsevier website](#).



Letter from the Chairs of the Inclusion & Diversity Advisory Board

Inequities in academic research are manifested in many different ways: from the low rates of grants awarded to and the low proportion of tenured professors who are women and members of underrepresented racial and ethnic groups in research, to the lack of representation of researchers from the Global South as reviewers, authors, and editors. This is further compounded by the need for appropriate sex and gender- and other diversity dimension-based analysis in research studies.

Inclusion and diversity lead to greater overall equity in research by ensuring:

- Expansion of entry and advancement opportunities for researchers of all backgrounds
- Widest possible range of topics and research questions pursued
- Rigorous, reproducible, and higher-quality research studies
- Equitable and widespread impact of research outcomes

The many challenges of our time, such as climate action, sustainability, emerging disease, and AI technologies, necessitate harnessing the contribution of diverse researchers to deliver impact that benefits all society.

As a global leader in scientific publishing, research and health information and data analytics, Elsevier aims to contribute to this equity effort by promoting and driving inclusion and diversity in research and healthcare through an evidence-based approach, informed by data, that drives a coordinated set of actions and initiatives.

It should thus come as no surprise that Elsevier launched the [Inclusion & Diversity Advisory Board](#) concurrent with the release of our most recent global gender research report, [The Researcher Journey Through a Gender Lens](#), which examines research participation, career progression, and perceptions on diversity and inclusion across the European Union and 15 countries globally in 26 research subject areas.

Building on the foundational work of the global analytics reports and work by the Elsevier Gender Equity Taskforce and the Elsevier Foundation, our independent, multidisciplinary Inclusion & Diversity Advisory Board is providing valued guidance on where we can make meaningful interventions to help achieve measurable and lasting change. Initial areas of focus included promoting greater gender equity in science and the research workforce, and we are now planning to include other dimensions of diversity such as race and ethnicity, career stage, geographic representation and intersectionality. The Board guides these efforts with standards, best practices and evidence-based initiatives that drive unbiased, robust decisions from how research is conducted to driving gender equity in research funding, peer review, publication, and career opportunities.

Together with the research community, Elsevier will continue to use our data, analytics and networks to drive inclusion, equality and diversity in research, learning from best practice.

Kumsal Bayazit, CEO of Elsevier



Dr Richard Horton, Editor-in-Chief of The Lancet



Inclusion & Diversity Advisory Board Members

(Continued on next page)



Kumsal Bayazit
Chairperson

Kumsal Bayazit was appointed Chief Executive Officer of Elsevier in February 2019 and has championed inclusion and diversity as an organizational priority since. She joined Elsevier from parent company, RELX, where she has held multiple management positions since 2004 in Exhibitions, Legal and Risk divisions, including as Chief Strategy Officer. Kumsal chairs RELX's Technology Forum and serves on the Elsevier Foundation Board.



Dr Richard Horton
Chairperson

Richard Horton, MD, FRCP, FMedSci, is Editor-in-Chief of The Lancet. Richard qualified in physiology and medicine with honours from the University of Birmingham in 1986. He joined The Lancet in 1990, moving to New York as North American Editor in 1993. Richard was the first President of the World Association of Medical Editors and he is a Past-President of the US Council of Science Editors. He is an honorary professor at the London School of Hygiene & Tropical Medicine, University College London, and the University of Oslo.



Gary L. Darmstadt
Board Member

Gary L. Darmstadt, MD, MS, is Associate Dean for Maternal and Child Health, and Professor of Neonatal and Developmental Medicine in the Department of Pediatrics at the Stanford University School of Medicine. From 2015-2019 he chaired the Steering Committee of The Lancet Series on Gender Equality, Norms and Health. Previously Dr. Darmstadt was Senior Fellow in the Global Development Program at the Bill & Melinda Gates Foundation, where he led cross-foundation initiatives on Women, Girls and Gender.



Sarah Hawkes
Board Member

Sarah Hawkes, MD, PhD, is the Director of the Centre for Gender and Global Health, and a medical doctor with a degree in sociology and a PhD in epidemiology. She is Professor of Global Public Health at University College London where she leads a research theme analysing the use of evidence in policy processes, particularly in relation to gender and health, and sexual health. Sarah is co-founder and co-Director of Global Health 50/50, an independent initiative that works to advance action and accountability for gender equality in global health.

Elsevier Support Team:

Board Secretary:
Mirit Eldor, Executive Vice President Strategy

Board Engagement Director:
Elena Porro, PhD, Director Strategic Initiatives

Co-Chair Gender Equity Taskforce:
Holly Falk-Krzesinski, PhD, Vice President Research Intelligence, Global Strategic Networks

Co-Chair Gender Equity Taskforce:
Ylann Schemm, Director, Elsevier Foundation and Corporate Responsibility

Inclusion & Diversity Advisory Board Members



Helena Legido-Quigley
Board Member

Helena Legido-Quigley, PhD, is Associate Professor at the Saw Swee Hock School of Public Health under the National University of Singapore and has a parallel position with the London School of Hygiene and Tropical Medicine. She is also an Associate Fellow at Chatham House, the Royal Institute of International Affairs. She has conducted research on health policy and health systems in Europe, Sub-Saharan Africa and currently with a focus on Southeast Asia and Latin America. Her specific areas of expertise include migrant health, gender equality in science, global health governance, health systems resilience, chronic conditions, and antimicrobial resistance. She is the Editor in Chief of the Journal of Migration and Health.



Londa Schiebinger
Board Member

Londa Schiebinger, PhD, is the John L. Hinds Professor of History of Science in the History Department at Stanford University and Director of the EU/US Gendered Innovations in Science, Health & Medicine, Engineering, and Environment Project. From 2004-2010, Schiebinger served as the Director of Stanford's Clayman Institute for Gender Research. She is a member of the American Academy of Arts and Sciences. Dr. Schiebinger's work has been devoted to teasing apart three analytically distinct but interlocking pieces of the gender and science puzzle: the history of women's participation in science; gender in the structure of scientific institutions; and the gendering of human knowledge.



Elizabeth Pollitzer
Board Member

Elizabeth Pollitzer, PhD, BSc, is the founder and director of Portia Ltd, a London-based nonprofit organization focused on improving gender equality in science and inclusion of gender dimension in research and innovation content. She has served as "architect" of the Gender Summits since its inception in 2011, guiding its focus on gender issues in research and innovation and helping to bring together scientists, policy makers, gender scholars and other stakeholders in the research ecosystem. She has 20 years' experience teaching and researching in the Departments of Computing and Management at Imperial College, University of London.



Martina Schraudner
Board Member

Martina Schraudner, PhD, is a Professor of Gender and Diversity in Technology and Product Development at the Technical University of Berlin and head of Fraunhofer Center for Responsible Research and Innovation. In addition, Martina Schraudner is Head of the Department of Gender and Diversity in Organizations at Technical University Berlin and Director of Responsible Research and Innovation Unit at Fraunhofer Gesellschaft. Her research currently focuses on the integration of different perspectives in the innovation process and involvement of potential users, dialogue between different science disciplines, and accommodating views of different stakeholders.



Hannah Valentine
Board Member

Hannah Valentine, MD, recently returned to Stanford as Professor of Medicine having served for six years as the inaugural NIH Chief Officer for Scientific Workforce Diversity, and a Senior Investigator in the Intramural Research Program at the National Heart, Lung, and Blood Institute. Prior to starting this position in April 2014, Dr. Valentine was Professor of Cardiovascular Medicine and the Senior Associate Dean for Diversity and Leadership at Stanford, a leadership position she held since November 2004. She is nationally recognized for her transformative approaches to diversity and is a recipient of the NIH Director's Pathfinder Award for Diversity in the Scientific Workforce. Dr. Valentine was elected to National Academy of Medicine in 2020, "for her national leadership in both scientific workforce diversity and cardiac transplantation research."



Prof. Tom Welton
Board Member

Prof. Tom Welton, OBE, CChem, FRSC, FCGI, is currently the President of the Royal Society of Chemistry. He joined Imperial College London in 1993 and served as Head of the Department of Chemistry from 2007 to 2014, before becoming Dean of the Faculty of Natural Sciences until December 2019. Welton's research focuses on sustainable chemistry and involves ionic liquids – chemicals that provide hope for replacing solvents that are used to dissolve materials but are often hazardous to health and the environment. Under Professor Welton's leadership as Head of Chemistry at Imperial, the department was awarded an Athena SWAN Gold Award in recognition of efforts to promote women in science. He has also been appointed to the UKRI Equality, Diversity and Inclusion External Advisory Group and in 2017 was awarded an OBE for services to diversity in education.



Miyoko O. Watanabe
Board Member

Miyoko O. Watanabe, PhD, serves at Japan Science and Technology Agency as Executive Director and Director of Office for Diversity and Inclusiveness. She has conducted research in semiconductor physics at Toshiba R&D Center in Japan and in physics at Dalhousie University, Canada, and at Nanoscale Physics Research Laboratory at the University of Birmingham, U.K. At Toshiba her positions included Executive Quality Leader at Innovation Division. She has also been Council Member of Science Council of Japan since 2011, and Vice-president of SCJ in charge of science and society since October 2017. Dr. Watanabe has been a member of Specialist Committee on Priority Policy in Council for Gender Equality of Cabinet Office of Japan since 2014 and was appointed as STEM girls' ambassador by Cabinet office in 2018.



Nieng Yan
Board Member

Nieng Yan, PhD, is the Shirley M. Tilghman Professor of Molecular Biology at Princeton University. She received her BS degree from the Department of Biological Sciences & Biotechnology, Tsinghua University, Beijing, China, in 2000. She then pursued her PhD in the Department of Molecular Biology at Princeton University between 2000 and 2004 and continued her postdoctoral training at Princeton. In 2007, she joined the faculty of School of Medicine, Tsinghua University, and was promoted to tenured professor and Bayer Endowed Chair Professor in 2012 and 2013. She moved to Princeton in 2017, where her lab focuses on the structural and chemical basis for membrane transport and lipid metabolism.

Report on Progress of Initiatives

“The strong commitment to I&D radiates throughout the entire science community - and has an impact on the quality of research by increasing the talent pool and including different perspectives.”

Professor Martina Schraudner, Head of the Fraunhofer Center for Responsible Research and Innovation and of the department Gender and Diversity in Technology and Product Development, Technical University of Berlin



Area 1: Impacting the participation of women in academic research as Editorial Board members, reviewers and authors

Initiative 1: Improving the Diversity of Elsevier's Editorial Boards

Objective

Our goal is to improve the gender diversity on journal Editorial Boards by driving change in Board compositions. Ultimately, we aim to reach a 50/50 distribution of men and women on Editorial Boards. However, as in some disciplines, women represent a low proportion of researchers, our initial goal is to match the global discipline-level gender distribution of researchers.

Approach

- As a first step, we need to set a representation goal for each journal
- We have provided data to all Editorial Boards of Elsevier's proprietary journals to empower them to set a diversity goal based on gender distribution in the field.
- Each Board will post a pledge of their commitment to achieve that plan on the journal website.
- Progress will be tracked and published.

Implementation

Boards have been provided with data on gender participation by subject area, drawn from Elsevier's 2020 global gender report, [The researcher journey through a gender lens](#), which leverages the Scopus database for establishing gender. Based on this data and an understanding of their current state of diversity, Boards have been empowered to set a target designed to bring greater gender diversity to the journal Editorial Board and to communicate their commitment on their journal home page.

In setting the target, Boards have been encouraged to aim for a meaningful increase in the involvement of women, in some cases committing to a goal exceeding the current gender participation in that field, or a stretch goal of 50:50 gender parity. This target has been determined through collaborative discussions between Elsevier publishers and their journal editors, based on data, field dynamics, time constraints and any other relevant context to ensure that goals are achievable.

Boards have also been strongly encouraged to take other aspects of diversity such as geographic representation and race and ethnicity into account when considering candidates and making choices for new members. In addition, they were provided with encouragement and recommendations for how to engage early career researchers in Board activities, building pathways for future Board members.

“Creating pathways for junior researchers to join Editorial Boards is doubly important: it can bring fresh perspectives and insights to journals, and it provides a unique experience for Early Career Researchers to engage with editorial work.”

Associate Professor Helena Legido-Quigley, Saw Swee Hock School of Public Health at the National University of Singapore and the London School of Hygiene and Tropical Medicine

In webinars and sessions for publishers, the Elsevier taskforce provided communication materials including information resources, slide decks, and examples from colleagues who are enabling participation of early career researchers in Board roles. These materials included draft commitment pledges, talking points and FAQs, case studies and more, enabling them to confidently approach editors about this topic.

A Journals I&D Champion Network, including publisher representatives from each publishing group and additional colleagues who are passionate about progressing the I&D agenda, have supported publishers in their efforts to empower editors to make a diversity plan and follow through on their pledged goals. Completing a plan and posting a pledge for each of the journals they oversee was included as a key performance objective for all publishers. The Champions and taskforce leaders provided advice to publishers on how to approach conversations with Boards, how to answer their questions, and how to help editors begin to make changes to Boards to increase the representation of women.

Report on Progress of Initiatives

Area 1: Impacting the participation of women in academic research as Editorial Board members, reviewers and authors

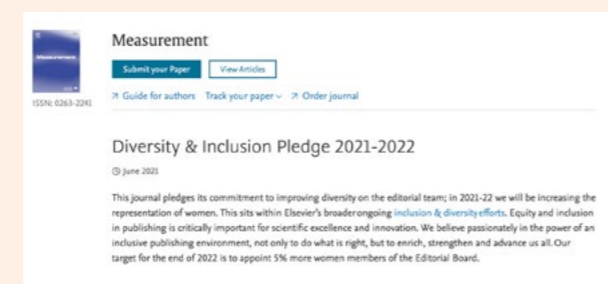
Progress and Results

Target setting: As of December 2021, 41% of the Elsevier proprietary journals (>730) have posted a commitment pledge, many setting a gender representation goal for the journal. Over 11% of the society journals Elsevier publishes (>100) have also opted in and posted their commitment pledges.

“We empower Boards to set goals that are realistic, tangible and time-bound. Each journal, Editor team and Elsevier publisher will be the agents of positive change within their related field, being a beacon for achieving more diversity and equity within science more generally.”

Thana Khasawneh, Publisher Clinical and Developmental Psychology

Example of **journal homepage commitment pledge** for the journal Measurement.



Progress on Editorial Board and Advisory Board diversity:

During 2021, Elsevier has increased the representation of women on Editorial Boards of proprietary journals (not including The Lancet and Cell Press) from 16% to 24%.

	Q4 2020	Q2 2021	Q3 2021	Q4 2021
Journals with diversity commitment pledges posted (% of proprietary journals not including The Lancet or Cell Press journals)	~0%	25%	33%	41%
Representation of women editors on editorial boards (% of proprietary Elsevier journals not including the Lancet or Cell Press journals)	16%	19%	19%	24%

The Lancet Journals

The Lancet made a public pledge to increase the representation of women on their external advisory Boards in August 2019. This focus has led to the increase of women in International Advisory Boards of The Lancet group's 23 journals from 30% in early 2019 to 53% at the end of 2021.

% Representation of Women on Lancet group International Advisory Boards, December 2021

The Lancet	50%	The Lancet Oncology	53%
The Lancet Child & Adolescent Health	64%	The Lancet Planetary Health	50%
The Lancet Diabetes & Endocrinology	50%	The Lancet Psychiatry	56%
The Lancet Digital Health	51%	The Lancet Public Health	50%
The Lancet Gastroenterology & Hemopathology	55%	The Lancet Respiratory Medicine	51%
The Lancet Global Health	52%	The Lancet Rheumatology	50%
The Lancet Haematology	59%	The Lancet Regional Health – Americas	50%
The Lancet Healthy Longevity	47%	The Lancet Regional Health – Europe	50%
The Lancet HIV	61%	The Lancet Regional Health – Western Pacific	54%
The Lancet Infectious Diseases	57%	eBioMedicine – part of The Lancet Discovery Science	53%
The Lancet Microbe	71%	eClinicalMedicine – part of The Lancet Discovery Science	56%
The Lancet Neurology	42%		

Overall aggregate across these journals: 53.2%



Report on Progress of Initiatives

Area 1: Impacting the participation of women in academic research as Editorial Board members, reviewers and authors

Cell Press Journals

In February 2020, Cell Press research and reviews journals committed to a gender equity goal of 50% representation of women on their external Advisory Boards and pledged that all journals will reach a level of at least 30% women on their Editorial Boards by the end of 2020. The pledge was set at 30% as Cell Press is an all-science publisher whose journals include those covering the physical sciences, where the current global participation of women in the various subfields is far lower than 30%.

All Cell Press journals, including 3 new journals, achieved the goal of at least 30% representation of women on their Advisory Boards in 2020. **By the end of 2021, the aggregate across journals is 39% women. 11 Cell Press journals have achieved 47% or higher representation of women on Advisory Boards.**

% Representation of Women on Cell Press Journal Advisory Boards, December 2021

Research Journals			
Cancer Cell	42%	Chem Catalysis	48%
Cell	49%	Current Biology	38%
Cell Chemical Biology	43%	Developmental Cell	32%
Cell Genomics	50%	Immunity	42%
Cell Host & Microbe	43%	iScience	31%
Cell Metabolism	33%	Joule	37%
Cell Reports	39%	Matter	30%
Cell Reports Medicine	60%	Med	38%
Cell Reports Methods	38%	Molecular Cell	40%
Cell Reports Physical Science	38%	Neuron	35%
Cell Stem Cell	47%	One Earth	33%
Cell Systems	32%	Patterns	42%
Chem	32%	STAR Protocols	53%
		Structure	36%

Reviews Journals, Trends in...

Biochemical Sciences	35%	Genetics	48%
Biotechnology	33%	Immunology	32%
Cancer	42%	Microbiology	50%
Cell Biology	52%	Molecular Medicine	38%
Chemistry	31%	Neurosciences	43%
Cognitive Sciences	36%	Parasitology	50%
Ecology & Evolution	38%	Pharmacological Sciences	46%
Endocrinology & Metabolism	30%	Plant Science	47%

Overall aggregate across these journals: 39.3% at end of 2021, grown from 30% at the beginning of 2021



Report on Progress of Initiatives

Area 1: Impacting the participation of women in academic research as Editorial Board members, reviewers and authors

Case Study: Elevating awareness by sharing success stories about improving diversity of Editorial Boards

The Elsevier team collected and shared positive stories and advice for increasing the diversity of Editorial Boards, leveraging Editors' and Reviewers' Update - a community resource for Elsevier editors and reviewers. The Elsevier team developed articles that feature tips from Elsevier Editors-in-Chief, publishers, and other internal experts.

Here are examples of stories shared with editors:

1. A case study from Shivaani Kummur, Editor-in-Chief of Current Problems in Cancer about [why and how to include women on Editorial Boards and as authors](#).
2. Learnings gleaned from qualitative interviews of nine women Editors-in-Chief and eight Elsevier publishers about obstacles to career progression faced by successful women researchers, in order to [identify actionable insights that could help diversify journal Boards and support the professional growth path of researchers](#).
3. A look at two journals which are [developing roles for Early Career Researchers on Boards](#).
4. During the Psychology Editors Meeting in December 2021, three editors-in-chief presented short videos describing their journals' I&D efforts and the positive benefits realised thus far.

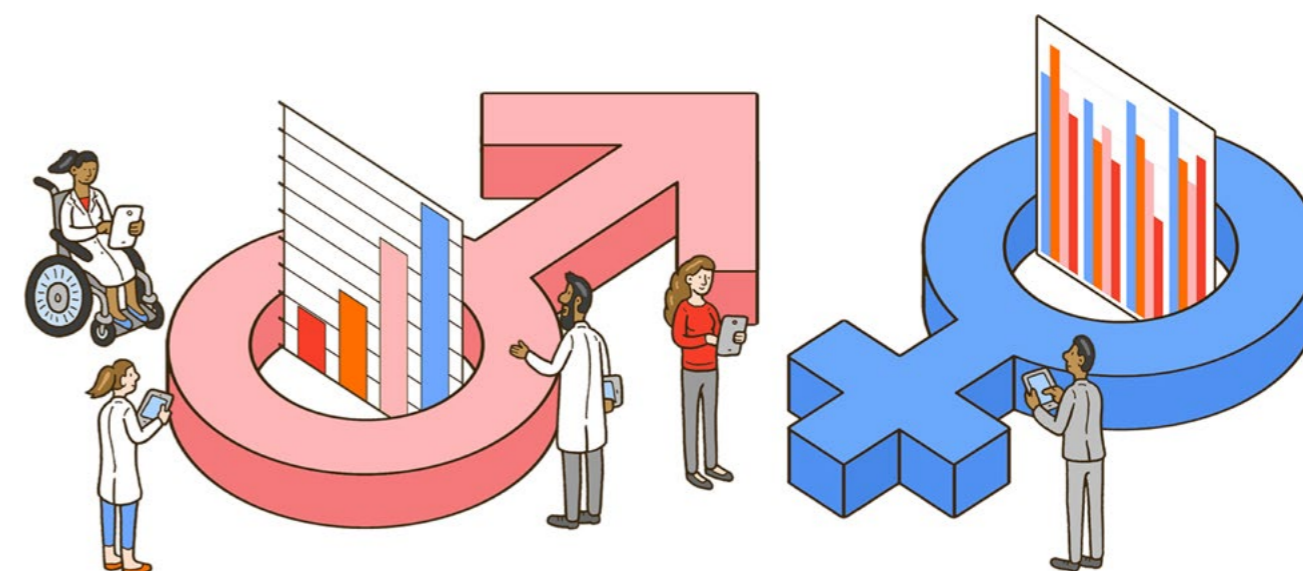
Case Study: Elevating awareness by creating a webinar series on Inclusion and Diversity

This initiative focuses on providing inspiring narratives on various aspects of diversity presented by researchers to researchers in the Researcher Academy learning center. All of the Inclusion and Diversity resources including 3 videos on Researcher Academy are now in one easy to find collection. They include:

- Reflections on making an inclusive research environment: Jan Eldridge, Associate Professor of Astrophysics, University of Auckland, New Zealand
- Minorities in STEM: Barriers they face in academia and pathways to allyship: Izzy Jayasinha, Senior Lecturer in Biosciences, University of Sheffield, United Kingdom
- Allyship: what it means and how to best advocate inclusion & diversity in science: Tom Welton, Professor of Sustainable Chemistry, Imperial College London, United Kingdom

What's Next?

- Continue to support publishers to ensure delivery of diversity plans and commitment pledges to achieve diversity goals including for society journals.
- Continue to communicate the importance of equity in Board roles and how this can catalyze change in the research ecosystem.
- Complete and disseminate the Editor Essentials training video for editors presenting the why and how of Editorial Board diversity.
- Unify and automate data collection and analysis where possible to include premium brands and society titles.



Report on Progress of Initiatives

Area 1: Impacting the participation of women in academic research as Editorial Board members, reviewers and authors

Initiative 2: Develop gender diversity indicator for journals based on self-reporting

Objective

The aim was to create transparency on current gender diversity at an individual journal Board level and to provide a contextual comparison versus other journals in the field. To achieve this, we have set out to develop a gender diversity indicator which would be shared on the journals home page.

“Casting a lens of equity and inclusion on who and what gets published is an important path towards achieving excellence. After all, great minds think differently!”

Dr. Hannah Valentine, Professor of Cardiovascular Medicine, Stanford University School of Medicine

Approach

The team has set out to display the gender representation at a journal Editorial Board in a clear, user-friendly way. This indicator will become the main metric for assessing gender representation on Editorial Boards and a signal of the journal’s commitment to I&D.

A cross-divisional team has been assembled to work on this project, including experts in product and publishing.

Progress and Results

After a test period with 25 journals from diverse scientific areas, the team launched the [Editor Gender Diversity Indicator and visualisation pod](#) on approximately 550 Elsevier journal homepages on 11 February 2021, the International Day of Girls and Women in Science. Using a clear visualization, the pod displays both the gender participation for the journal based on self-reported data and a comparable set of journals as a benchmark. Additionally, links to Elsevier’s Gender diversity webpage and the most recent Global Gender Report are included.

The team updates the data for displaying journals on a monthly basis and approaches publishers for permission to display the data for new journals that have made the threshold of available data points. **By the end of 2021, 772 journals are displaying the Gender Diversity Indicator (43% of proprietary journals).** We have also recently added the percentage of editors on the Board for whom self-reported gender data is available.

To facilitate the collection of editors’ self-reported data in the editorial database, editors can now proactively update their information on a new Editor profile page or respond directly to an email survey. We have also integrated a view providing the number of members by country/region to increase transparency around different aspects of diversity including geographic representation.

Whats next?

The addition of a second benchmark is under development: **The current representation of women in the scientific field relevant to the journal.** These data will be drawn from Elsevier’s most recent Global Gender Report.



Gender Indicator on homepage for journal Brain Research

Gender Diversity Distribution of the Editors ⓘ

Based on 61% responding editors

● 43% woman ● 57% man ● 0% non-binary or gender diverse ● 0% prefer not to disclose



Benchmark Gender Diversity distribution across Neuroscience portfolio Editors ⓘ

● 33% woman ● 66% man ● 0% non-binary or gender diverse ● 1% prefer not to disclose



[Read more](#) about Elsevier on the topic of diversity.
Access Elsevier's most recent [Global Gender Report](#).

Global representation of Board on homepage for journal Brain Research

83 editors and editorial board members in 20 countries/regions

US United States of America (53) CA Canada (4) AU Australia (3) DE Germany (3)
TW Taiwan (3) BE Belgium (2) CN China (2) AT Austria BR Brazil DK Denmark
FI Finland HK Hong Kong IE Ireland IT Italy JP Japan NZ New Zealand
PT Portugal ES Spain SE Sweden GB United Kingdom

“I’m an advocate for greater transparency within the industry; it helps drive accountability. Institutions and organizations need to push for internal transformation: getting their house in order should be the first step towards any meaningful inclusion and diversity initiative.”

Professor Sarah Hawkes, , Director of the Centre for Gender and Global Health, UCL

Report on Progress of Initiatives

Area 1: Impacting the participation of women in academic research as Editorial Board members, reviewers and authors

Initiative 3: Analysing how the COVID-19 lockdown has impacted women as authors and peer reviewers

Objective

The objective of this research initiative was to understand the impact of the pandemic on women researchers and manuscript submission.

Approach

To answer this question, Elsevier collaborated on a research study with academic researchers of PEERE (an initiative by the European Cooperation in Science and Technology, focused on Peer Review). The project team analysed Elsevier journal submission and peer review data through a gender lens to understand whether the pandemic has impacted the submission of articles and the peer review invitation acceptance rate of women researchers compared with men.

Implementation

Elsevier has a rich source of submission and peer review data. In a previous collaboration with PEERE, the team analysed peer review processes from 10 years of historical data of journals from Elsevier, Wiley, and Springer to see if peer review is gender biased. They discovered that that in terms of the editorial selection of reviewers, reviewer recommendations, and editorial decisions, manuscripts written by women alone or co-authored by women were treated fairly by reviewers and editors ([Peer review and gender bias: A study on 145 scholarly journals; Science Advances Vol 7, Issue 2, 6 Jan 2021](#)).

For the new study on the impact of the COVID-19 pandemic on submissions and peer review, the team replicated the data sharing protocol in collaboration with the same academic co-authors. Because the organisations had worked together previously, they were able to use an updated data set with similar characteristics, enabling the study to proceed rapidly.

Progress and Results

Beginning in the summer of 2020, the team collected submission and peer review data from February to May 2020 along with data from February to May 2018 and 2019 to define the baseline. After proper anonymization, harmonization and removal of edge cases, the algorithms described in the [previous work](#) were used to predict each individual's gender based on names. For the more than 5 million individual academics who published during these timeframes, their first publication in Scopus was used to categorize them into two age cohorts.

The results showed that women in the age group of 40-50 across all disciplines and in every corner of the globe have been penalised more than other age cohorts during lockdowns during the first wave of the pandemic. This is more pronounced when looking at COVID-related studies, where women not only submitted fewer manuscripts than their male colleagues but also declined more review invitations. [The resulting manuscript](#) has been published in PLOS ONE as [Gender gap in journal submissions and peer review during the first wave of the COVID-19 pandemic. A study on 2329 Elsevier journals](#). (PLOS ONE 16(10): e0257919. October 10, 2021 <https://doi.org/10.1371/journal.pone.0257919>)

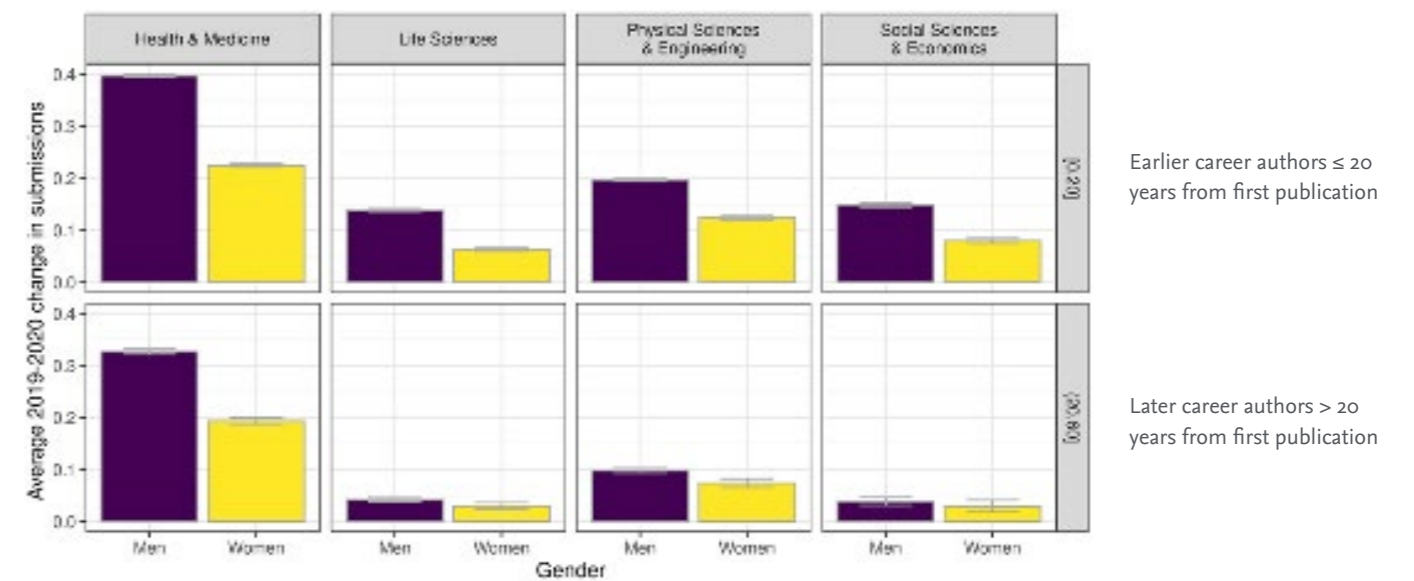
Study summary

In the early onset of the pandemic, the impression that women were submitting fewer manuscripts to journals was confirmed by two studies using the PubMed database and [data on preprints](#) to estimate the gender of authors posting or publishing COVID-19 related papers. In order to understand whether the race for COVID-19 publications benefited men more than women, the team accessed the full data from various journals in a comparable time frame to estimate the effect of the pandemic on individual scholars.

The Elsevier and PEERE research team were granted access to anonymized manuscript and anonymized peer review metadata from all Elsevier journals, including individual records of authors and reviewers in a fully comparable monthly time frame, i.e., February-May 2018, 2019 and 2020 (for 2020 this time frame covers the first wave of the pandemic in Asia, Europe and America). This data allowed the research team to treat the pandemic as a 'quasi-experiment' and estimate its effect on academics' productivity at an individual level, by considering the seasonal rate of submissions for these years in different research areas. The team included data on reviewers to understand whether women were also penalised in their commitment as journal reviewers. The team looked at submitted manuscripts and peer review activities for all Elsevier journals between February and May 2018-2020, including data on over 5 million authors and reviewers.

Results showed that during the first wave of the pandemic, women submitted proportionally fewer manuscripts than men. This deficit was especially pronounced among younger cohorts of women academics (defined as researchers with less than 20 years from their first publication). The rate of the peer-review invitation acceptance showed a less pronounced gender pattern.

The findings suggest that the first wave of the pandemic has created potentially cumulative advantages for men.



Average change in submissions by research area and age, the latter variable including authors in the first cohort (≤ 20 years from their first publication) in the first group with older authors in the second. Bars represent standard errors. <https://doi.org/10.1371/journal.pone.0257919.g002>

What's Next?

The team plans to extend the research study to provide greater focus for potential actions:

- To answer how the pandemic has impacted the journals' peer review standards (for example the number of reviewers per manuscript, peer review speed, and rejection rates), we will extend the analysis to the full year of 2020 for submissions, peer review and editorial decisions
- To answer how the extent of the impact differs by country, analyse the impact at a country level given data on academic affiliations and the details of the lockdown measures.
- To help assess the long-term effects of the pandemic on the gender gap in STEM, trace the performance of accepted papers through the gender lens

Broaden research on peer review by enabling the wider community:

- To establish a Peer Review Workbench within the ICSR Lab (part of Elsevier's International Center for the Study of Research) with both manuscript submission and peer review metadata, including author gender metadata. The Peer Review Workbench will support internal analysis and enable researchers beyond our current academic collaborators to conduct studies on the scholarly communication system. To our knowledge, no other publisher has ever shared its journal submission and peer review data in such a systematic, reliable, and transparent manner.

Report on Progress of Initiatives

Area 1: Impacting the participation of women in academic research as Editorial Board members, reviewers and authors

Initiative 4: Implementing gender and race and ethnicity self-reporting for researchers using Elsevier's submission system

Objective

Data collection is key for measuring our progress in moving to more equitable participation in research. The goal of this initiative is to determine how to capture gender and race and ethnicity self-reported information on Elsevier's submission systems. Elsevier's submission system, Aries Systems Editorial Manager®, is used by multiple publishers who will also be able to collect diversity data after further development planned by Aries in 2022.

“Gender, race, ethnicity, age and geographic data collection schemas are vital to address inequities of participation in the scientific enterprise – and to encourage greater accountability, ensuring that organizations take real action to create a research landscape that provides equal opportunities for all.”

Dr. Gary Darmstadt, Associate Dean for Maternal and Child Health and Professor of Neonatal and Developmental Medicine, Stanford University School of Medicine

Approach

Until now, large scale studies leveraged Elsevier's Scopus database, where predictive algorithms for gender were applied to author names. This approach has been critical to our progress so far. However, to understand participation at a journal level of the various publication roles, Editor, Author and Reviewer, we need to collect **self-reported data** from the researchers who use Elsevier submission systems. This will enable us to conduct aggregate-level analysis and reporting to establish the baseline, determine concrete actions to improve equitable participation and measure the effect of these actions.

The first phase of this initiative focused on defining the schema for **gender identity**, garnering expert advice and engaging with other publishers for alignment. This is currently being piloted on the Elsevier submission system. Phase II is focused on **race and ethnicity**, where determining a global approach is more complex.

Implementation

A team with considerable expertise across Elsevier has come together to review and update the **gender identity schema** and to develop a new global **race and ethnicity schema** for implementation as a user question in Aries Editorial Manager®. The initiative required consideration of social and cultural context, legal issues and privacy policies, technology capabilities and platform architecture. There is greater cultural sensitivity to race and ethnicity demographic data compared with gender identity, plus the risk of increased hesitancy when people are asked to answer multiple personal data questions.

Although laws and regulations are different across countries and regions, the team has determined that Elsevier can ask users in all countries to self-identify, as long as the following conditions are met:

- The option 'Prefer not to disclose' is offered
- An explanation of how the data will be used is provided
- Assurance that the data will only be analysed at the aggregate is provided
- The data is secured with appropriate access controls in line with with data protection and privacy guidelines.

The team's broad-based approach included conducting a literature review; engaging an external subject matter expert (Sociologist Dr. Ann Morning, New York University, a global census and race expert); collaborating with other publishers as part of the Royal Society of Chemistry-organized Joint Commitment for action on I&D, leveraging Aries relationships with other publishers to identify additional voices to confirm progress so far and guide how publisher-agnostic integration in Editorial Manager may work in the future.

Progress and Results

Gender identity schema for all STM Journals

The team completed the review and finalised an updated gender identity schema. The gender identity schema was approved by the Inclusion & Diversity Advisory Board and endorsed by the Joint Commitment group in early 2021. The schema has been rolled out for users of Aries Editorial Manager® (Advisory Board members, reviewers and authors) at Cell Press and The Lancet journals, and in Q4 2021 has been rolled out to an additional pilot set of 25 journals. A full implementation plan for the remaining proprietary and optionally for society titles will be developed in early 2022.

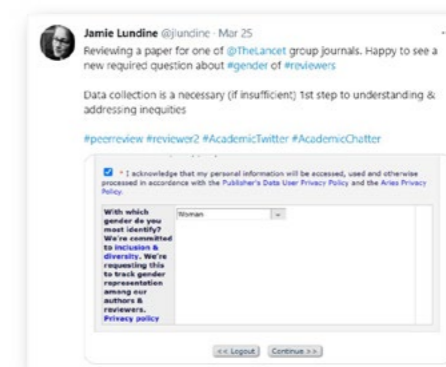
Users of Editorial Manager are presented with the following text:

Gender Identity

Elsevier is deeply committed to inclusion and diversity in research. Please help us in advancing gender diversity, inclusion and equity in research and informing our own processes by responding to the question below. The data will only be reported at an aggregate level. Refer to the [Elsevier Privacy Policy](#).

With which gender do you most identify?
Please choose one option:

- Woman
- Man
- Non-binary or gender diverse
- Prefer not to disclose



Report on Progress of Initiatives

Area 1: Impacting the participation of women in academic research as Editorial Board members, reviewers and authors

Improving representation of women authors and reviewers at The Lancet journals

A gender identity data question was implemented in Aries Editorial Manager® for all Lancet journals in November 2019 and updated with the revised schema in 2020.

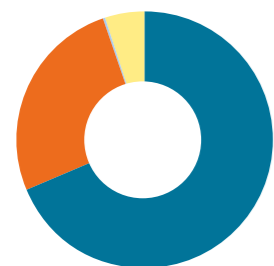
Self-reported gender has been analysed for authors and reviewers in 2020 and 2021 per journal and for The Lancet Group as a whole. Improvements in the percentage of women authors of submitted and accepted articles as well as women invited as reviewers and completing reviews across The Lancet group of journals, as well as for The Lancet Global Health, are outlined below.

From 2020 to 2021, the percentage of women authors submitting to The Lancet group of journals has increased from 26% to 30% and the percentage of accepted women authors has increased from 32% to 34%. In the same period, the percentage of women invited as clinical reviewers has increased from 13% to 15% and of women completing at least one clinical review has increased from 30% to 33%. For The Lancet Global Health, in the same period, the percentage of women authors submitting to the journal has increased from 32% to 38% and the percentage of accepted women authors has increased from 38% to 42%. Also in the same period, the percentage of women invited as clinical reviewers for The Lancet Global Health has increased from 19% to 23% and of women completing at least one clinical review has increased from 38% to 42%.



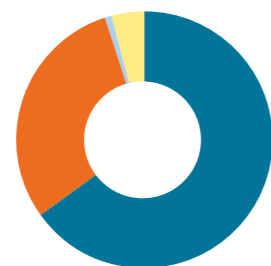
Submissions Lancet journals (2020 and 2021)

2020 Self-reported gender of corresponding author n=59,149 submitted manuscripts (all article types)



Men 69% Women 26%
Non Binary/ Gender diverse 0.2%
Preferred not to say (3%)/ were blank (2%) 5%

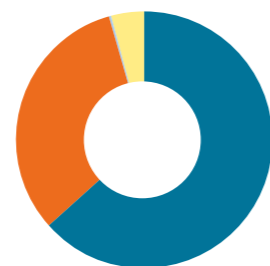
2021 Self-reported gender of corresponding author n=37,060 submitted manuscripts (all article types)



Men 65% Women 30%
Non Binary/ Gender diverse 1%
Preferred not to say 4%

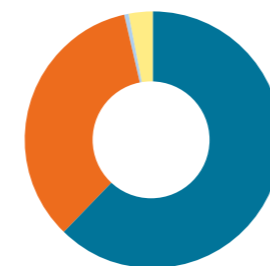
Accepted manuscripts Lancet journals (2020 and 2021)

2020 Self-reported gender of corresponding author n=5,935 accepted manuscripts (all article types)



Men 63% Women 32%
Non Binary/ Gender diverse 0.3%
Preferred not to say (3%)/ were blank (1%) 4%

2021 Self-reported gender of corresponding author n=6,103 accepted manuscripts (all article types)



Men 62% Women 34%
Non Binary/ Gender diverse 0.5%
Preferred not to say 3%

Invited clinical reviewers Lancet journals (2020 and 2021)

2020 Self-reported gender of invited reviewers n=43,743



Men 28% Women 13%
Non Binary/ Gender diverse 0.1%
Preferred not to say 1%
Blank 57%

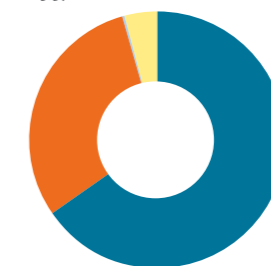
2021 Self-reported gender of invited reviewers n=46,955



Men 26% Women 15%
Non Binary/ Gender diverse 0.1%
Preferred not to say 1%
Blank 58%

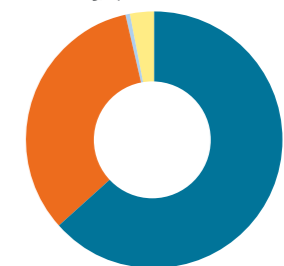
Completed clinical reviewers Lancet journals (2020 and 2021)

Self-reported gender of reviewers who completed at least one review in 2020 n=13,591



Men 65% Women 30%
Non Binary/ Gender diverse 0.2%
Preferred not to say (3%)/ were blank (1%) 4%

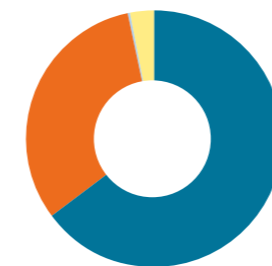
Self-reported gender of reviewers who completed at least one review in 2021 n=13,840



Men 63% Women 33%
Non Binary/ Gender diverse 0.4%
Preferred not to say 3%

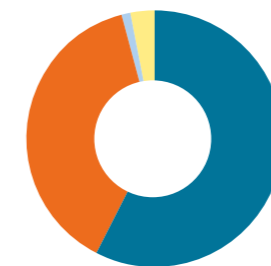
Submissions The Lancet Global Health (2020 and 2021)

2020 Self-reported gender of corresponding author n=4,274 submitted manuscripts (all article types)



Men 65% Women 32%
Non Binary/ Gender diverse 0.2%
Preferred not to say 3%

2021 Self-reported gender of corresponding author n=2,724 submitted manuscripts (all article types)



Men 57% Women 38%
Non Binary/ Gender diverse 1%
Preferred not to say 3%

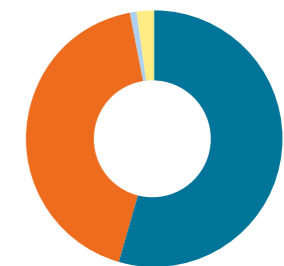
Accepted manuscripts The Lancet Global Health (2020 and 2021)

2020 Self-reported gender of corresponding author n=343 accepted manuscripts (all article types)



Men 56% Women 38%
Non Binary/ Gender diverse 0%
Preferred not to say (5%)/ were blank (1%) 6%

2021 Self-reported gender of corresponding author n=366 accepted manuscripts (all article types)



Men 54% Women 42%
Non Binary/ Gender diverse 0.8%
Preferred not to say 2%

Invited clinical reviewers The Lancet Global Health (2020 and 2021)

2020 Self-reported gender of invited reviewers n=2,119



Men 28% Women 23%
Non Binary/ Gender diverse 0.3%
Preferred not to say 1%
Blank 47%

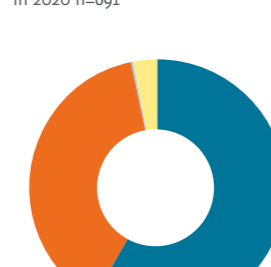
2021 Self-reported gender of invited reviewers n=1,658



Men 28% Women 19%
Non Binary/ Gender diverse 0.1%
Preferred not to say 1%
Blank 52%

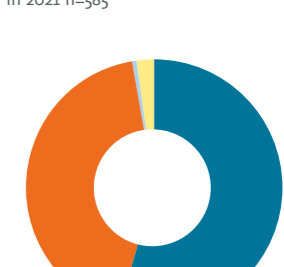
Completed clinical reviewers The Lancet Global Health (2020 and 2021)

Self-reported gender of reviewers who completed at least one review in 2020 n=691



Men 58% Women 38%
Non Binary/ Gender diverse 0.3%
Preferred not to say (2%)/ were blank (1%) 6%

Self-reported gender of reviewers who completed at least one review in 2021 n=585



Men 54% Women 42%
Non Binary/ Gender diverse 0.7%
Preferred not to say 2%

Note: 'Prefer not to say' is shown in yellow on the graph. 'Blank' denotes where reviewers have not responded to the gender question. Many reviewers do not log in to Editorial Manager and thus do not complete the gender identity field, so for most journals we have ~50% self-reported gender for invited reviewers.

Report on Progress of Initiatives

Area 1: Impacting the participation of women in academic research as Editorial Board members, reviewers and authors

Race and ethnicity identity schema for all STM Journals

Objective

“There is still much work to do to eliminate bias in the publishing world. With major industry players signing the Joint Commitment for Action on Inclusion and Diversity, we hope to see a positive change in how publishers set baselines for action and reflect the diversity of the research community.”

Prof. Tom Welton, President of the Royal Society of Chemistry and Dean of the Faculty of Natural Sciences, Imperial College London

The team has finalised a proposed global race and ethnicity (geographic-based ethnic origins) schema based on input from external subject-matter experts, members of the Joint Commitment group, and results of a survey of more than 1,000 active researchers globally.

The large-scale survey enabled us to understand the extent to which researchers may be willing to self-report race and ethnicity information. We collected extensive feedback about the level of representativeness of the ethnic origins and race options we presented, and on the degree of comfort researchers have when being asked to share their information while serving as editors/Editorial Board members, reviewers, or authors.

The Elsevier team has defined an approach for collecting gender identity and race and ethnicity data that will serve Elsevier and optionally its society titles. Aries is developing the collection system further to support other journal publishers using Editorial Manager. It is a purpose-built solution for the most effective collection, storage, and safeguarding of gender identity and race and ethnicity data, employing access controls and central storage to maximally mitigates risk for all parties (data subjects-researchers, controllers-publishers/societies, processor). The solution will support reporting functionality and can facilitate future downstream sharing of anonymized data for reporting at multiple levels (e.g., across Elsevier proprietary and society titles, and potentially across other publishers). Development work is currently underway.



“Elsevier’s twin schema for collecting data on race and on geographic ethnic origins is the fruit of a concerted effort to think clearly and carefully about the kind of ancestry-related information that is useful for DEI efforts, and that can be reliably obtained from surveys that span the globe. Rather than rely on the categories used in any one national setting, it draws on research on descent-based classification systems around the world to propose two identity items that proved to work well in Elsevier’s international survey of authors, editors, and reviewers.”

Ann Morning, Associate Professor, NYU Department of Sociology

The Elsevier team has shared the approach in several external forums: The Coalition for Networked Information Conference (March 2021), Association of College & Research Libraries Conference (April 2021), Society for Scholarly Publishing Conference (May 2021), Society for Nutrition Education and Behavior Annual Conference (August 2021), and Committee on Publication Ethics (October 2021).

What’s Next?

- We will continue to work with the Joint Commitment group to refine and finalize the Race and Ethnicity schema in 2022.
- Pilot the race and ethnicity schema in Aries Editorial Manager® for two cohorts of journals to determine the best approach for implementation. These include the 25 journals that are already piloting the gender identity schema, and a second group of 25 journals that are similar in size and scope. The results will determine the rollout plans for both the gender identity schema and the race and ethnicity schema to other Elsevier journals and optionally society journals.
- Publish a scholarly, peer-reviewed article regarding the race and ethnicity schema with Professor Morning.
- Develop central reporting to track progress.
- Engage National Information Standards Organisation (NISO) and Open Researcher and Contributor ID (ORCID) to expand use of both the gender identity and race and ethnicity schemas throughout the scholarly information ecosystem.
- Collaborate more closely with Aries to further leverage existing relationships with publishers to socialize the GRE integration and continue to create and foster new avenues for dialogue around I&D initiatives for the future.



Report on Progress of Initiatives

“The widespread adoption of the SAGER reporting guidelines is extremely encouraging. We now have to monitor to what extent journals actually ensure compliance in the papers they publish.”

Joan Marsh, Editor in Chief, The Lancet Psychiatry



Area 2: Integrating the sex and gender dimension of research: Impacting journal policies and guidelines

Initiative 1: Develop training materials on sex and gender-based analysis in Research Studies

Objective

The consideration of diversity attributes such as sex and gender within research studies can have a critical impact on the interpretation, validation, reproducibility, and generalizability of research findings.

Hallmarks of sex and gender-based analysis include the disaggregation data by sex, delineation between biological “sex” and socio-cultural “gender,” reporting the sex and/or gender of animal and human study participants, and discussion of the influence or association of sex and/or gender variables on research findings and derived conclusions.

In this initiative, the goal is to collaborate with other stakeholders within the research ecosystem—including funders, editors, reviewers, and authors—to develop guidance for how investigators should integrate sex and gender analysis into the design of their research and implement standards for reporting on sex and gender in published research studies.

Approach

A team has been established to develop training materials on sex and gender based analysis in research studies for authors, reviewers, and editors, and to drive awareness and adherence to best practices.

Progress and Results

The team created a [webinar on integrating sex, gender, and intersectional analysis into research](#), featuring I&D Advisory Board member Londa Schiebinger, PhD, John L. Hinds Professor of History of Science at Stanford University and Director of EU/US [Gendered Innovations in Science, Health & Medicine, Engineering, and Environment](#); Cara Tannenbaum, MD, Scientific Director of the [Institute of Gender and Health at the Canadian Institutes of Health Research](#); Holly Falk-Krzesinski, PhD, Co-chair of Elsevier’s Gender Equity Taskforce and Vice President, Global Strategic Networks at Elsevier; and Jessica Miles, PhD, Senior Publisher, Trends and Society Cell Press Journals at Cell Press, Elsevier.

The on-demand webinar available on Researcher Academy has received more than 2.7k views as of February 2022. Content from the webinar was contributed to the National Institutes of Health’s (NIH) Office for Research on Women’s Health (ORWH) new training module “Sex as a Biological Variable: A Primer.”

“The need to integrate sex, gender, race and intersectional analysis in research is greater than ever: AI facial recognition fails 35% of the time for black women, pulse oximeters don’t work as well for people with darker skin... but there are many more examples. Harnessing the creative power of this type of analysis adds valuable dimensions to research and helps ensure that results are applicable across the whole of society.”

Dr. Londa Schiebinger, The John L. Hinds Professor of History of Science, Stanford University

To help drive awareness and adoption of these guidelines, the team shared an [Editors’ Update article](#) describing the importance of sex and gender reporting and the [SAGER \(Sex and Gender Equity in Research\) guidelines](#) developed by the European Association of Science editors (EASE).

A detailed section including Information about the importance of and guidance on how to assess the reporting of sex and gender based analyses in research studies has been added to Elsevier’s Reviewer Hub instructions. These refer to SAGER and discuss sex vs gender to help reviewers provide feedback to authors on improving analysis and reporting in their submitted articles.

In addition, Cell Press is finalizing updated, standardized and clarified editor and author guidelines for all their journals on reporting sex and gender-based analysis in research. An Elsevier team is also finalizing language to update the “Guide for Authors” in relevant Elsevier journals to clarify reporting and analysis guidelines to better match SAGER recommendations. These will be implemented in 2022.

What’s Next?

- Explore adaptation for Elsevier journals of a data science responsibility checklist now being piloted on several journals.
- Prepare a certified online course module on SAGER guidelines for editors, reviewers, authors, and funders
- Progress partner discovery phase to identify and engage a convener for a coalition of publishers and other stakeholders to support adoption and compliance of SAGER guidelines.
- Continue to engage with a global group of research funders to collaborate on creating shared quality standards for advancing gender research and knowledge

Report on Progress of Initiatives

Area 2: Integrating the sex and gender dimension of research: Impacting journal policies and guidelines.

Initiative 2: Integrating the Sex and Gender Dimension to advance SDG research

Objective

In 2019, Elsevier developed new SDG search queries to help governments, funding bodies and other organizations understand how their research contributes to the UN SDGs. The initial request came from the Times Higher Education, which asked for Elsevier's help in defining SDG search queries for use in their [University Impact Rankings by SDGs](#). Shortly thereafter, we were challenged by Elizabeth Pollitzer, Elsevier I&D Board member and Director of Portia, to explore the integration of sex and gender topics in SDG research through an analytics lens. The challenge was picked up by Elsevier's [International Center for the Study of Research](#) which aimed to create a baseline understanding of sex and gender in each SDG research area. To ensure that the outcomes of SDG research benefit both women and men equally, it is essential that a gender perspective is embedded across each SDG research area and not simply clustered in SDG5 (Gender Equality) and SDG10 (Reduced Inequalities).

Approach

Elsevier's International Centre for the Study of Research worked closely with Dr. Pollitzer and other Gender Summits experts to base the study methodology on building a query (keyword search) to identify publications that include sex and/or gender topical research using keywords from publications in the "Gender in the Global Research Landscape" Mendeley library. In addition, publications that include sex and/or gender research for each of the 16 SDGs were identified using Elsevier's curated SDG publication sets from Scopus and a sex and/or gender query in Scopus. Within each of the 16 SDGs, we highlighted the research relevant to SDG targets plus indicators in which sex and/or gender research do (or don't) factor using VOSviewer mapping tool for visualizations and overlay maps.

Progress and Results

This study provides a benchmark proof-of-concept for the development of inclusion of sex and gender considerations as a critical dimension of sustainability research. The methodology can be employed to measure and compare ongoing progress of sex and gender-based analysis within and across all 16 SDGs toward ensuring rigorous results and inclusive, impactful policy.

The SDG study demonstrates that there is variability on how sex and gender factors into SDG research output. This variability exists both within individual SDGs and across the 16 SDGs (SDG 17 was not included in this analysis). SDG5 (Gender Equality) and SDG3 (Good Health and Well-being) are the only SDGs with more than 60% of the publications factoring in sex and/or gender. However, SDG3 research has an unexpected, uneven inclusion of sex and/or gender considerations. For example, the SDG3 research areas that do not include sex and/or gender terms are largely in the topical clusters relating to fundamental cell biology and public and environmental health, despite calls for sex and gender-based analysis in research across the spectrum of life and biomedical sciences and human health, notably through policies of major funding bodies such as NIH, CIHR, EC, and UKRI.

The remaining 14 SDGs have less than 40% of publications that include sex and/or gender research, and therefore such research is at risk of producing outcomes that are not inclusive. As an example, SDG4 (Quality Education) is classed as "gender-sensitive" by the UN Women report, and for many years it has been known that formative educational experiences and educational attainment are different for boys and girls. However, it has also become clear more recently that teacher (professor) gender in higher education affects attainment and outcomes for women but not for men. The results appear to reflect this, with sex and/or gender research included in publications addressing topics around early years, junior and senior school education but almost absent from the part of the map which deals with higher education and teacher training. Thus, the results indicate that sex and gender research within SDG 4 is explicit in education practice but not education policy research.

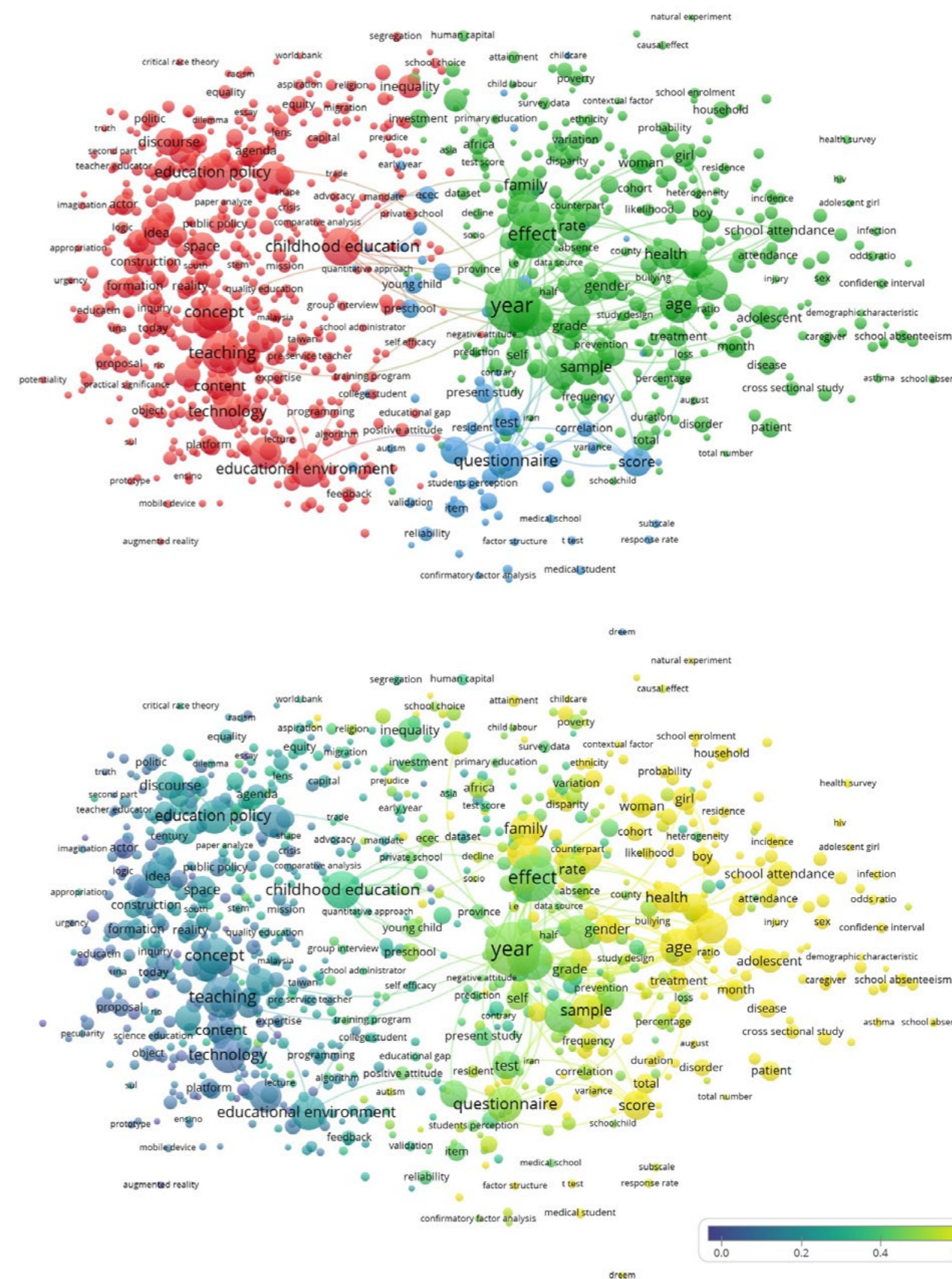


Figure 3. SDG 4: Quality Education term map. Binary counting (present/absent, not count of occurrences) was applied to terms in titles and abstracts of 4,992 publications in 2018, and those with at least 10 occurrences (994 terms) were mapped using VOSviewer. Node size indicates count of occurrences, and node proximity reflects frequency of co-occurrence (nodes close together co-occur more frequently than nodes far apart). In Panel A (top), colors indicate topical clusters; in Panel B (bottom), color scale indicates the proportion of publications associated with the mapped terms that were also identified by the sex and gender keyword search.

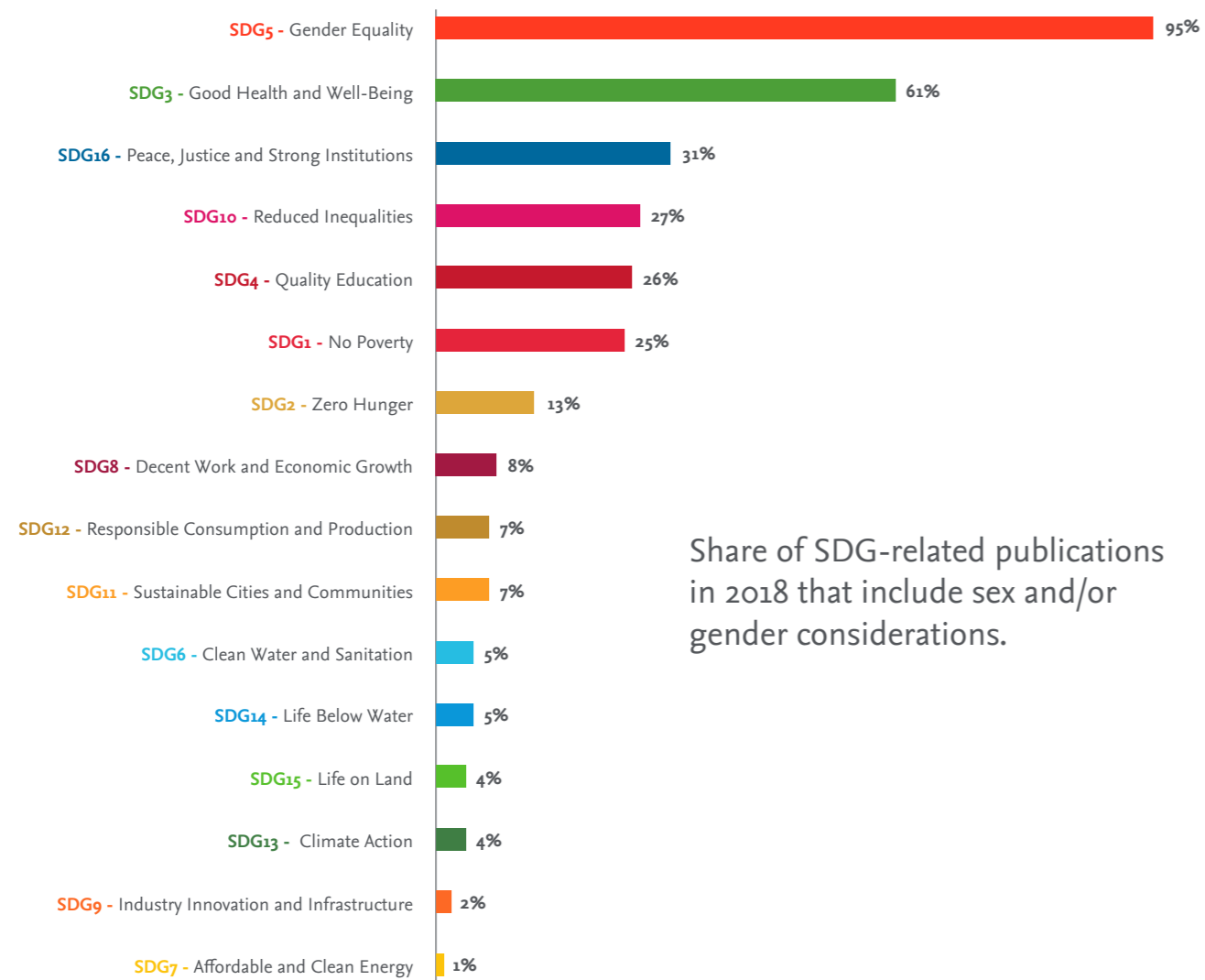
The results of the study were included in [The Power of Data to Advance the SDG Report](#) (page 7) marking the 5th anniversary of the UN SDGs and presented at the virtual 2020 THE World Academic Summit and the 2021 Gender Summits. The article was also posted in SSRN: https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=3689205

Report on Progress of Initiatives

Area 2: Integrating the sex and gender dimension of research:
Impacting journal policies and guidelines.

What's Next?

- The sex and gender Scopus query and a revised set of SDG queries have been made available to researchers at no-cost through the ICSR Lab, part of Elsevier's International Center for the Study of Research.



Share of SDG-related publications in 2018 that include sex and/or gender considerations.



“Sustainability research suffers from gender blindness. Unless this changes, the implementation of SDGs will not achieve the successes it could, and women will be left behind. To fully achieve gender equality, gender has to be understood as an institutionalized system of differences that advantage men over women and behaves like the ‘Invisible Hand’ to reassert gender inequalities over time. Transformative change is needed and can be achieved by integrating gender perspectives into research on SDGs and mainstreaming gender into policy frameworks for SDGs.”

Dr. Elizabeth Pollitzer, Director of Portia and founder of the Gender Summits

Report on Progress of Initiatives

Area 2: Integrating the sex and gender dimension of research:
Impacting journal policies and guidelines.

Initiative 3: Develop gender-related indicators for The Lancet Countdown on the impact of climate change on health

Objective

Gender inequities worsen the effects of climate change on health, and responses to climate change that are sensitive to these inequities will benefit all of society. This initiative is a collaboration between The Lancet Countdown study (a collective of international researchers and UN agencies), and the UN Entity for Gender Equality and the Empowerment of Women (UN Women), to build gender related indicators into the reports and thus provide regional specific data needed to support targeted actions.

Approach

Representatives from The Lancet Countdown study and UN Women agreed to:

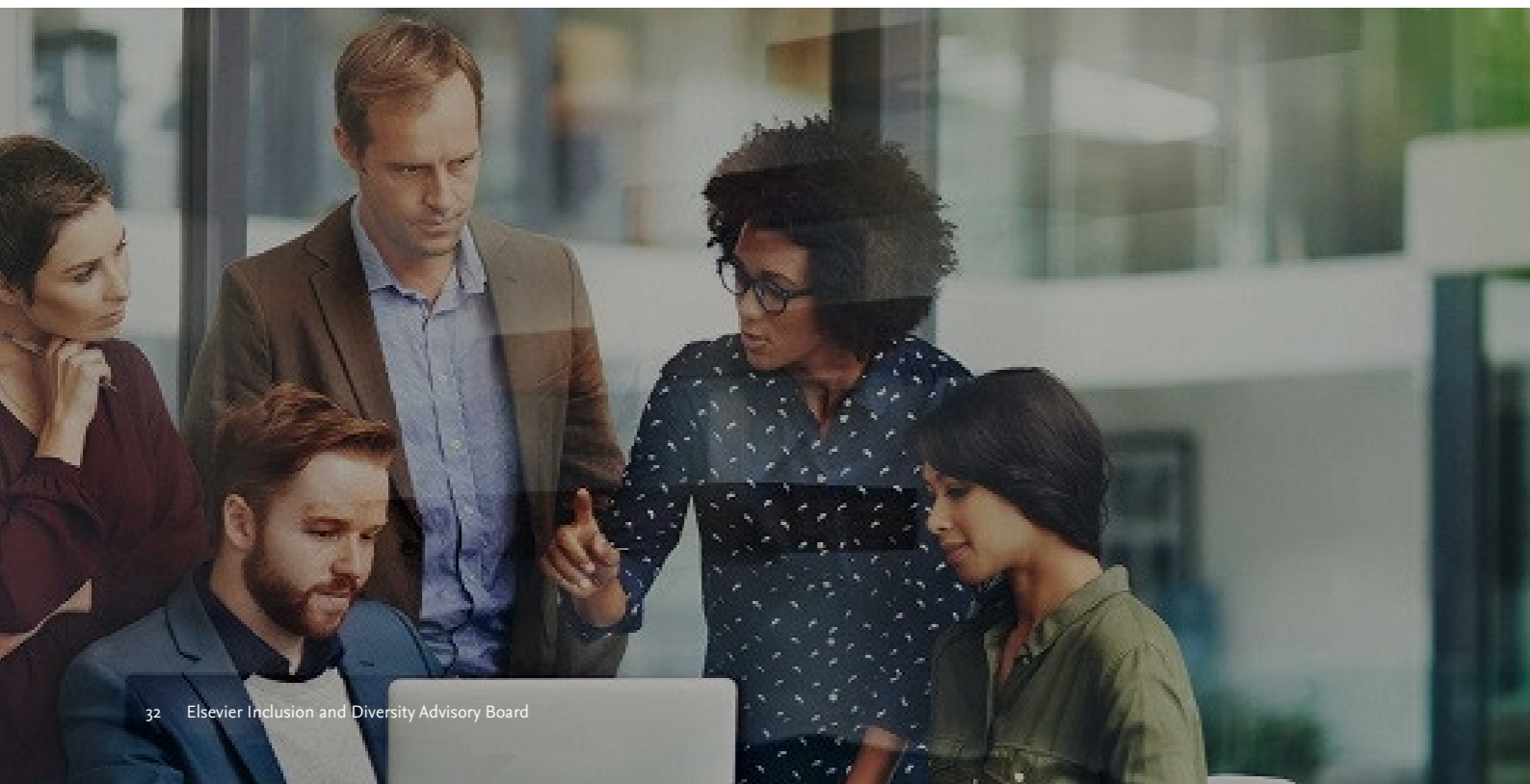
- Ensure that the 2021 The Lancet Countdown report includes evidence on gender
- Further develop gender-related indicators for inclusion in future reports

Progress and Results

The 2021 report of the Lancet Countdown on health and climate change: code red for a healthy future considers gender disparities where data allows. The panel below from the report describes the need for “the collection and reporting of data that is sufficiently disaggregated, granular, and intersectional to reveal local inequities—eg, data disaggregated not only by gender but also by geography, age, ethnicity, class, and other markers of marginalisation and vulnerability” a need which is exacerbated by current disparities in funding and prioritization of gender issues. Due to this lack of data, out of 44 indicators in the 2021 report only 6 provide data by sex or gender. In collaboration with the Report contributors, the UN Women, via its program ‘Making Every Woman and Girl Count’ is implementing a global questionnaire to facilitate data collection and is also supporting data processing and the integration of geospatial information.

Whats next?

As data is collected and suitably reported, the Lancet Countdown report will continue to increase the number of indicators including sex or gender data



The Lancet Countdown on health and climate change

Report on Progress of Initiatives

“The importance of forums such as the Gender Summit is its power as an international movement to address gender and research considerations – calling science institutions, innovators, governments and policy makers to act towards practical steps for the implementation of I&D policies.”

Dr. Miyoko O. Watanabe, Executive Director, Japan Science and Technology Agency.



Area 3: Improving the career progression of women researchers in academia and professional life

Key initiative: Accelerate existing institutional level initiatives supporting career progression and improving inclusive academic environment via partnerships

Partnership 1: The Gender Summits

Objective

The Gender Summits serve as a critical forum for researchers, institutions and policymakers to “make gender equality in science and research the norm and promote the inclusion of the gender dimension in STEM research”, in the words of Dr. Elizabeth Pollitzer, founder and driver of the Gender Summits and a member of Elsevier’s Inclusion & Diversity Board. Since its 2011 launch, the Gender Summit mission, to embed gender as a primary dimension of quality in STEM research and to achieve sustainable positive change, has spread rapidly to new regions including North America, Latin America, Africa and Asia-Pacific.

Approach

Starting with the very first Gender Summit in 2011, both Elsevier and the Elsevier Foundation have supported the Gender Summits through a range of financial and in-kind support with expertise in Editorial Board diversity, gender balance at conferences, sex-disaggregated methodologies and developing new editorial guidelines and training on sex and gender in research. The partnership has provided an excellent environment to absorb best practices, share Elsevier’s initiatives such as the 2020 Gender Report and work closely with the research community worldwide.

Many members of Elsevier’s I&D Advisory Board are also longstanding contributors to the Gender Summits. Dr. Martina Schraudner was a co-organizer of the 2021 European Gender Summit, representing acatech and other German research organizations. Dr. Miyoko Watanabe, who also spoke at the EU Gender Summit in April 2021, was the key organizer and driver of the 2017 Asian Gender Summit in Tokyo through the Japanese Science and Technology Agency. Professor Londa Schiebinger has been a frequent speaker at the Gender Summits including the most recent 2021 Latin America Gender Summit in September 2021, helping to embed a deeper understanding of the need for sex and gender analysis in research through the compelling and much-cited EC/NSF funded Gendered Innovations case studies.

Progress and Results

Since the I&D Board inception in 2020, Elsevier has supported 5 Gender Summits in partnership with Portia, a not-for-profit organisation established by Dr. Elizabeth Pollitzer in 2001 to advance an understanding of gender issues in science. Dr. Pollitzer is both a key European Gender Summit organizer and advisor working closely with regional organizers to raise awareness, spur dialogue and drive change in research policy.

- Global SDGs Gender Summit 19 in August 2020 was hosted by Elsevier’s Researcher Academy. The Summit brought together experts in gender and sustainability who gathered to identify actions to accelerate progress across all of the UN SDGs. There was a keynote address from the Elsevier Chairman, Youngsuk (YS) Chi, discussions and presentations by Gender Equity Taskforce co-chairs Holly Falk-Krzesinski, Vice President, Global Strategic Networks and project lead for Elsevier’s global gender reports and Ylann Schemm, Director of Elsevier Foundation & Sustainability.
- African Gender Summit 18 in November 2020 centred on the theme of “Agriculture through the Gender Lens: From Surviving to Thriving”. Ylann Schemm hosted a panel of representatives from Scientific African and Elsevier Foundation partners to discuss Editorial Board Diversity in Africa.

Report on Progress of Initiatives

Area 3: Improving the career progression of women researchers in academia and professional life

- **European Gender Summit 21** in April 2021 convened experts and international decision makers to discuss the impact of the pandemic on integrating gender equality, diversity, and inclusion objectives into the science and research methods and into the mechanisms of international collaboration and interaction. It was organized by leading German research organizations, including **acatech**, the **Deutsche Forschungsgemeinschaft (DFG)** and the **Alexander von Humboldt Foundation**. The Summit featured Elsevier contributions, including:
 - A keynote address from Elsevier CEO Kumsal Bayazit on “**The transforming power of I&D: how Elsevier is taking up the challenge**”
 - A plenary panel with Bahar Mehmani, Head of Reviewer Experience at Elsevier presenting her **recent article** on the lessons learned from COVID-19 pandemic for gender, diversity, and inclusion issues in research.
- **Latin American Gender Summit 20** in September 2021 was organized by a range of partners including the British Council, the DFG and Elsevier and focused on “Enhancing scientific excellence to improve quality, equity, and societal relevance of research outcomes”. It included a presentation by YS Chi, Chairman of Elsevier who shared gender analytics across 3 Latin American countries including Mexico, Argentina and Brazil. Holly Falk Krzesinski presented a deeper dive into Elsevier’s I&D analytics contributions.

Elsevier and the Elsevier Foundation team have also supported the communication, marketing and conference delivery of the Gender Summits, including a visual storytelling retrospective piece to celebrate the 10 years of the Gender Summits and partnership with Elsevier and the Foundation.



“For Elsevier, the Gender Summits have been an essential catalyst in our own journey as an organization and as curators of research. This is one of the reasons that we also supported the expansion of the Gender Summits in developing and emerging countries in 2015-2017: the Gender Summits provide an essential space for this critical work. As a member of Elsevier's Inclusion and Diversity Board, Dr. Elizabeth Pollitzer continues to guide us in our efforts to contribute to a more equitable research ecosystem.”

Ylann Schemm, Director Elsevier Foundation and Sustainability



Visual retrospective story published by the Elsevier Foundation to celebrate the 10 years of the Gender Summits and our 10-years long collaboration with Portia.

Partnership 2: New partnerships in Asia, Europe and the US expand the Elsevier Foundation’s focus on building careers of woman and under-represented Early Career Researchers

Objective

In November 2021, Elsevier made an additional \$200,000 contribution to the **Elsevier Foundation** to establish a new Early Career Researcher program focusing on career progression for women researchers and underrepresented scientists from different racial and ethnic backgrounds.

Approach

Using a strong evidence base including Elsevier’s 2020 Gender Report, 2020 Covid research output study and the 2021 National Academies report, **The impact of COVID-19 on the Careers of Women in Academic Sciences, Engineering, and Medicine**, the Elsevier Foundation has established a portfolio of partnerships to tackle the disruptions caused by the pandemic in the engagement, experience, and retention of women and underrepresented researchers in STEM. The new program will officially launch in 2022 and includes 7 partnerships in the US, Germany, the UK, Singapore, China and Japan using a range of approaches including awards, training workshops, role modeling and talent programs. Input, advice and expertise from I&D Advisory Board members including Nieng Yan and Miyoko Watanabe were critical in shaping the new partnerships.

“Engaging Early Career Researchers from the very beginning is fundamental to fostering a truly inclusive research ecosystem: support for ECRs, especially those from underrepresented groups, means that career progression is looked at with greater equality and inclusion in mind.”

Prof. Nieng Yan, Shirley M. Tilghman Professor of Molecular Biology, Princeton University



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Additional Resources

- [Elsevier's I&D Advisory Board](#)
- [Elsevier I&D site](#)
- [Elsevier Gender Reports site](#)
- [The transforming power of I&D: how Elsevier is taking up the challenge](#)
- [We must make progress across all dimensions of diversity](#)
- [Corporate Responsibility Gender Equality page](#)
- [Elsevier CEO on why inclusion and diversity matters – and why inclusion comes first](#)
- [The transforming power of I&D: how Elsevier is taking up the challenge](#)
- [Elsevier condemns racism and discrimination](#)
- [The importance of sex and gender reporting](#)
- [4 ways we can support racial equality as publishers](#)
- [A virology pioneer's story sets the stage for a global gender equity conversation](#)
- [Applying "gender lens" can help us achieve better health and disaster responses](#)
- [The Power of Data to Advance the SDGs](#)
- [4 experts on how to advance sustainable development](#)
- [Celebrating 10 years of Gender Summits](#)

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