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AI4LABOUR PROJECT

Eva María Navarro-López

“Another ‘Women in’ event will make no difference: tokenism, privilege and violence in academia, science and technology”



19th July, 2022

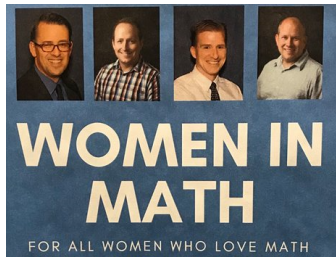
The fatuity of 'Women in ...'

? So...

What comes into your minds when I say the 3 words
'Women in AI'?

The fatuity of 'Women in ...'

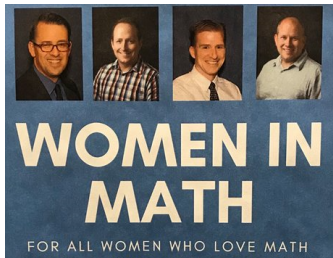
Box 1



(Photo from Twitter cover picture of @allmalepanels)

The fatuity of 'Women in ...'

Box 1



(Photo from Twitter cover picture of @allmalepanels)

Box 2



(Photo from 1st ACM womENCourage, Manchester, 2014)



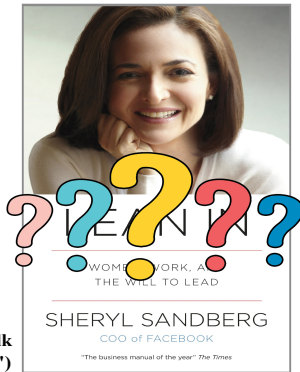
The reality

'Lean In' in the existing system?

Cindy Gallop and "Why Sheryl Sandberg's 'Lean In' is flawed"



(Photo from www.cindygallop.com. Video: extract from the talk "Building a business case for more female creative leadership")



- Less in **number**

Less, less, less

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- Less **publications** and **h-index**

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- Less **grants** as principal investigators
- Less **likely to be promoted**
- Less **salaries**
- Less **mentoring**
- Less **time for research**, while doing less rewarding and less recognised work

My university just pays lip service to equality and diversity

Universities trot out BME staff for photos in their prospectuses, but when it comes to promotions, we are left at the end of the queue

Anonymous academic

Guardian Professional, Saturday 15 February 2014 10.00 GMT

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Think about it

- **I am not** a woman in science, **I am** a scientist
- **I am not** a woman in AI, **I am** an expert on AI
- **I am not** a woman in technology, **I am** a technologist

- **Token women:**

- Co-opted and rewarded with sinecures for their complicity
- 'The only one' effect versus the community effect

Paying lip service to equality, diversity and inclusion

- **Token women:**

- Co-opted and rewarded with sinecures for their complicity
- 'The only one' effect versus the community effect

- **'Women in' ... workload:**

- Women do the **invisible and unrecognised work**: commitment to gender equality, support to staff, mentorship/coaching
- Women and minority groups **fight for equality, diversity and inclusion of ALL**
- Institutional initiatives (like Athena SWAN award):
 - **Huge workload** assigned to women
 - **Ineligible** for career progression and promotion
 - **Number-based initiatives** will make no difference

Paying lip service to equality, diversity and inclusion

And to tick the box of diversity, the job advert says...

“As an equal opportunities employer, we welcome applications from all suitably qualified persons. However, we would particularly welcome applications from female applicants. All appointments will be made on merit and qualifications”

Paying lip service to equality, diversity and inclusion

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Think about it

- But how are **‘merit’** and **‘qualifications’** defined?
- How has the **job advert** been written?
- How diverse is the **selection committee**?

Science faculty's subtle gender biases favor male students

Corinne A. Moss-Racusin^{a,b}, John F. Dovidio^b, Victoria L. Brescoll^c, Mark J. Graham^{a,d}, and Jo Handelsman^{a,1}

^aDepartment of Molecular, Cellular and Developmental Biology, ^bDepartment of Psychology, ^cSchool of Management, and ^dDepartment of Psychiatry, Yale University, New Haven, CT 06520

Edited* by Shirley Tilghman, Princeton University, Princeton, NJ, and approved August 21, 2012 (received for review July 2, 2012)

Despite efforts to recruit and retain more women, a stark gender disparity persists within academic science. Abundant research has demonstrated gender bias in many demographic groups, but has yet to experimentally investigate whether science faculty exhibit a bias against female students that could contribute to the gender disparity in academic science. In a randomized double-blind study

gender disparity in science (9–11), and that it “is not caused by discrimination in these domains” (10). This assertion has received substantial attention and generated significant debate among the scientific community, leading some to conclude that gender discrimination indeed does not exist nor contribute to the gender disparity within academic science (e.g., refs. 12 and 13).

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Think about it



Is it unconscious or **conscious bias**?

Unconscious bias: know yourself

 **Project Implicit®**

Featured Task

Try a StudyTake a Demo TestBackgroundTech SupportThe ScientistsProject Implicit

You have completed the Gender - Science IAT.

Your Result

Your data suggest a moderate association of Male with Science and Female with Liberal Arts compared to Female with Science and Male with Liberal Arts.

Thank you for your participation. Just below is a breakdown of the scores generated by others. Most respondents find it easier to associate *Male with Science* and *Female with Liberal Arts* compared to the reverse.

Many of the questions that you answered on the previous page have been addressed in research over the last 10 years. For example, the order that you performed the response pairing is influential, but procedural corrections largely eliminate that influence (see [FAQ #1](#)). Each visitor to the site completes the task in a randomized order. If you would like to learn more about the IAT, please visit the [FAQs and background information](#) section.

You are welcome to try [additional demonstration tasks](#), and we encourage you to register (easy) for the [research site](#) where you will gain access to studies about more than 100 topics about social groups, personality, pop culture, and more.

[FAQs](#) || [Research site](#) || [Demo site](#) || [Project Implicit Home](#)

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Percent of web respondents with each score

Strong automatic association of Male with Science and Female with Liberal Arts	26%
Moderate automatic association of Male with Science and Female with Liberal Arts	28%
Slight automatic association of Male with Science and Female with Liberal Arts	18%
Little to no automatic preference between gender and academic domains	18%
Slight automatic association of Male with Liberal Arts and Female with Science	6%
Moderate automatic association of Male with Liberal Arts and Female with Science	3%
Strong automatic association of Male with Liberal Arts and Female with Science	1%

[Click for detailed summary](#)

Other challenges faced by diverse teams

- **Stereotype threat**

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- **Stereotype** threat
- **Exclusion** from critical social networks

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 - Confidence is not competence
 - Different expectations of behaviour
- **Unaware** managers (differences in career goals)



It is not just about being fair

Beryl Nelson: "It is not just about being fair"



(Beryl Nelson in Manchester at ACM womenEncourage, 1st March 2014, 7 months before she passed away)

DOI:10.1145/2597886

It's not just about being fair.

BY BERYL NELSON

The Data on Diversity

PEOPLE WORKING TOGETHER can achieve more than they can alone; this is a fundamental principle upon which organizations are founded. Social scientists have shown that teams and organizations whose members are heterogeneous in meaningful ways, for example, in skill set, education, work experiences, perspectives on a problem, cultural orientation, and so forth, have a higher potential for innovation than teams whose members are homogeneous. These findings are not without controversy, yet the implications for the computing industry are profound, given the relative homogeneity of the field along a few important dimensions. Take, for example, the composition of degrees awarded in computer science, computer engineering, and informatics in 2012 at research institutions in the U.S.

- 13.3% of BS degrees, 28.7% of MS degrees, and 19.2% of Ph.D.s were awarded to female candidates, down from a high of 37% of BS degrees in computer science in 1986.

- 5.7% of BS degrees were awarded to African American candidates, as were 2.7% of MS degrees, and 2% of Ph.D.s.

Among computing professionals, about 38% of CS faculty in U.S. universities are women, and 1.6% are African American.¹⁶ Similar numbers exist in industry.

Diversity, bias, and stereotypes have traditionally been discussed in very relativistic terms: surveys of whether people thought there was bias, and so on. In recent years, imaginative researchers have developed ways to gather quantitative data about the benefits of, as well as the challenges to, having a diverse workforce. This article explores the benefits that diversity can bring to teams, and the cognitive factors—namely, stereotypes based on social group membership—that keep us from achieving optimal levels of diversity.

Benefits of Diversity

Diverse teams are more effective: they produce better financial results and better results in innovation. These results show that having a diverse organization is a business imperative.

Key insights

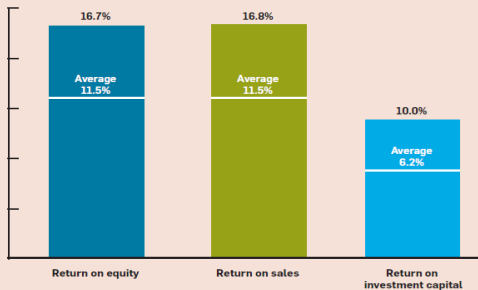
- Teams and organizations whose members are heterogeneous in meaningful ways have a higher potential for innovation than teams whose members are homogeneous.
- Social sciences experiments using quantitative methods show bias, stereotype threat, and methods to combat them.
- Effectiveness of diverse teams depends on trusting and supportive cultures. Data publication is one of the most important tools to identify and combat identity threat and biased decision making.
- There is hope! There are tools that have been shown to combat bias and identity threat effectively.

DC COMMUNICATIONS OF THE ACM / NOVEMBER 2014 / VOL. 57 / NO. 11

It is not just about being fair

**Diverse teams are more productive, innovative, creative...
and happier**

Figure 2. Financial performance at companies with three or more women board directors (WBD).



Courtesy of Catalyst Report™

**(From Beryl Nelson, "It is not just about being fair. The data on diversity",
Communications of the ACM, November 2014)**



⚡ Privilege, inequality and exclusion

And we dared to dream... here we are, present!

CUMBRE DE COMUNIDADES
TechnoLatinas

Vida adulta: Contextos Vulnerables

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Yuliana Wilson
@yulibeatlilly

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Eloisa García
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TechnoLatinas

Domingo 05 de Diciembre de 2021
10 HRS 🇪🇸 🇨🇺 🇵🇪 | 11 HRS 🇪🇸 🇨🇺 | 12 HRS 🇪🇸 🇨🇺 | 13 HRS 🇪🇸 🇨🇺 | 17 HRS 🇪🇸 🇨🇺

<https://lu.ma/Cumbredecomunidades> twitch.tv/technolatinas

Logos: TOMATO, TechnoLatinas, and a hand icon.

Illustration: A stylized illustration of a woman with glasses and headphones, surrounded by flowers and butterflies.

(Collaborative talk in "Cumbre de Comunidades", Summit of Communities, 5th December 2021, organised by Technolatinas, more information at <https://www.evanavarro.org/research/invited-talks>)

The cement ceiling, who called it the glass ceiling?

1 **Access** to education

The cement ceiling, who called it the glass ceiling?

- 1 **Access** to education
- 2 **Progress** in education

The cement ceiling, who called it the glass ceiling?

- 1 **Access** to education
- 2 **Progress** in education
- 3 **Access** to work

The cement ceiling, who called it the glass ceiling?

- 1 **Access** to education
- 2 **Progress** in education
- 3 **Access** to work
- 4 Career **progression** and **career-harming bias**

And they call it meritocracy...

- Networks of **power**

Privilege, inequality and exclusion

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- Networks of **privilege**

Privilege, inequality and exclusion

And they call it meritocracy...

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Privilege, inequality and exclusion

And they call it meritocracy...

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- Networks of **exclusion**



Do we really want to change this?



Privileged men are substituted by privileged women



Bullying, harassment and hostile environments

It is not our fault



(Episode 69 of "The VisibleVoices" by Resa E. Lewis MD)

"There is no such a thing as impostor syndrome. There are only people, especially women, who have never been appreciated, valued, rewarded, championed and celebrated in the way they should"

Bullying and harassment

- **Hostile, abusive** and **unsympathetic** work environments

Bullying and harassment

- **Hostile, abusive** and **unsympathetic** work environments
- **Discrimination** and **unfair** treatment at all levels

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- **Undermining**
- **Sexual harassment**: when the #MeToo of academia?
- No proper **institutional response**: the majority group is protected



Positive change and challenging the current status quo

Challenging the current status quo

Simplification of the problem if solutions are just...

- **More, more, more** numbers of women

Challenging the current status quo

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- **Role models**

Challenging the current status quo

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- **'Girls in'**: what do you want more girls in STEMM for?

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Do we really want a change?



We need to do more than this

Transforming and 'feminising' the work environment

- More **compassionate**

Transforming and 'feminising' the work environment

- More **compassionate**
- **Cooperation** over competition

Transforming and 'feminising' the work environment

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Transforming and 'feminising' the work environment

- More **compassionate**
- **Cooperation** over competition
- **Consensus**
- Developing **trust**
- **Safe** spaces
- Alternative **leadership models** (horizontal over vertical)

Including disadvantaged and vulnerable communities

- **Investment** in public education (apprenticeship and studentship programmes)

Including disadvantaged and vulnerable communities

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- Value **diverse talent and ideas**: talent is lost without support

Including disadvantaged and vulnerable communities

- **Investment** in public education (apprenticeship and studentship programmes)
- Value **diverse talent and ideas**: talent is lost without support
- Support at all levels and **at all ages**

Promoting critical and creative thinking

- Discrimination is a consequence of **the fear of differences**

Promoting critical and creative thinking

- Discrimination is a consequence of **the fear of differences**
- **Open-minded and free-thinking** people

Promoting critical and creative thinking

- Discrimination is a consequence of **the fear of differences**
- **Open-minded and free-thinking** people
- **Multidisciplinary**: including humanities, social and art-related subjects in STEMM careers

Communities of support

- Creating **spaces to grow and flourish**

Communities of support

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- Growing **in community**

Communities of support

- Creating **spaces to grow and flourish**
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- **The collective** versus the individual 'token woman'

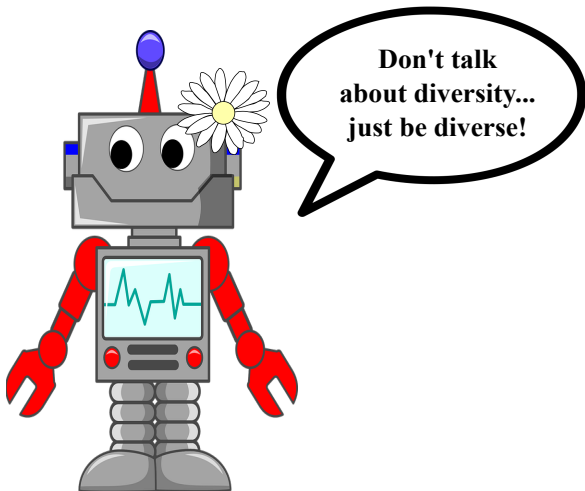
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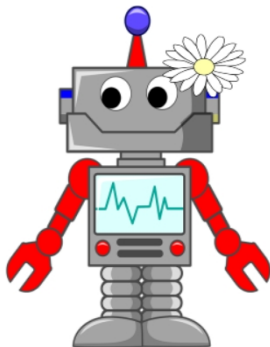
Changing the viewpoint

Let's change the discourse



Changing the viewpoint

Let's change the discourse



Another 'Women in'
event will make
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Another 'Women in' event will make no difference:

Tokenism, privilege and violence in academia, science and technology

Eva Navarro López

`www.evanavarro.org`

University of Wolverhampton

University of Manchester

AI Mexico, Technolatinas

AI & Gender Workshop

AI4LABOUR Project

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