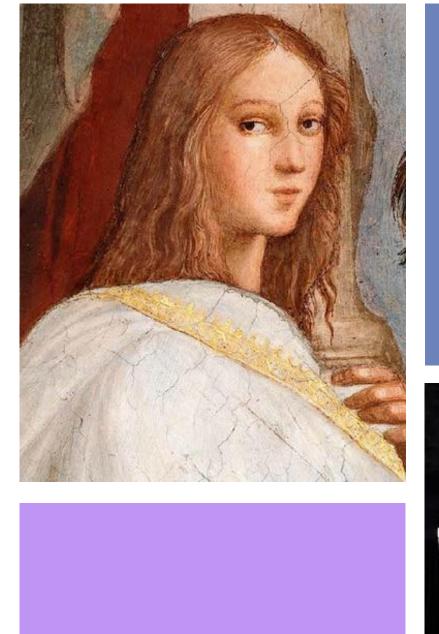
## **INTERNATIONAL DAY OF** WOMEN AND GIRLS IN 2025 SCIENCE BOOK WEEK

## HYPATIA

- Born 370 in Alexandria, Egypt
- Egyptian philosopher, astronomer, and mathematician
- The only female scholar to be acknowledged for her achievement in ancient Egypt
- Constructed plane astrolabes and graduated brass hydrometers
- Taught at the Neoplatonic
  School and became the school's director





### DR. GLADYS WEST

- Born in 1930
- African-American mathematician
- Helped in the development of satellite geodesy models
- Played a crucial role in the development of the Global Positioning System (GPS)
- Inducted into the U.S. Air Force
  Hall of Fame in 2018









#### DR. ELLEN OCHOA Born 1958

- American engineer & astronaut
- First Hispanic woman to go to space
- Johnson Space Center's first Hispanic director and second female director
- Researched optical systems for information processing
- She obtained a Ph.D. in electrical engineering









## DR. MARYAM MIRZAKHANI

#### 1977-2017

- Iranian mathematician
- In 2014 she became the first woman to win the Fields Medal, for her sontributions to the dynamics and geometry of Riemann surfaces and their module spaces
- She specialized in theoretical mathematics like moduli spaces, Teichmüller theory, hyperbolic geometry, Ergodic theory and symplectic geometry.





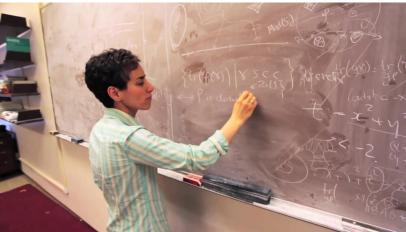


Figure 3.2: Share of women in top 20 countries for share of professionals with AI skills, 2017 (%) In descending order for top countries



Source: WEF (2018) The Global Gender Gap Report 2018. World Economic Forum: Geneva.

UNESCO SCIENCE REPORT (2021)

## MARY GOLDA **ROSS** 1908 - 2008

- Cherokee Engineer \*\*
- First Native American woman engineer
- \* Founding member of Lockheed's secret "Skunk Works"
- \* Designed space crafts, ballistic missiles, and satellites







#### Woman Engineer Aids In Missile Research BY JEANNETTE BEFAME

LOS ALTOS - A soft the development retaille used no a ta



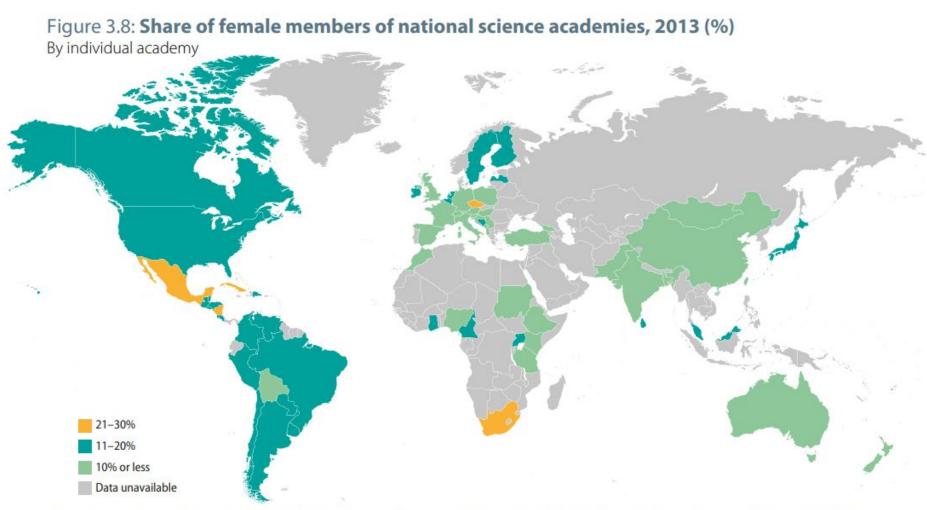
# DR. MARIE

- Polish physicist and chemist
- Conducted research on radioactivity
- Discovered the elements polonium and radium
- First women to win a Nobel Prize
- First person to win a Nobel Prize twice and the only person to do it in two different scientific fields physics and chemistry









Note: For each country aside from Switzerland, the data reflect one academy of science; for Switzerland, the data reflect the combined membership of the Swiss Academy of Medical Sciences (17% women) and the Swiss Academy of Engineering Sciences (10% women).

Source: ASSAF (2015) Women for Science: Inclusion and Participation in Academies of Science: a Survey of the Members of IAP: the Global Network of Science Academies. Academy of Science of South Africa: Pretoria

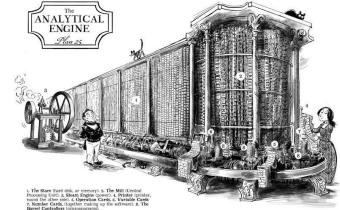
#### UNESCO SCIENCE REPORT (2021)

## ADA LOVELACE

- 1815-1852
- English mathematician
- First computer programmer
- Worked with Charles Babbage and his Analytical Engine, an early protype of the computer
- Published the first computer algorithm titled, "Note G"

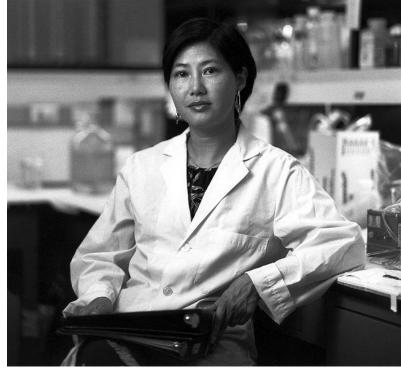






DR. FLOSSIE
 WONG-STAAL
 \* 1947 - 2020

- Chinese-American virologist and molecular biologist
- First scientist to clone HIV
- Her contributions to HIV research helped prove HIV causes AIDS and develop diagnosing and treatments for the disease



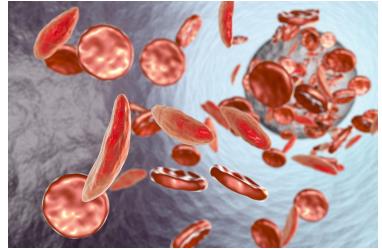




## DR. ANGELLA DOROTHA FERGUSON

- Born in 1925Washington, D.C.
- African-American pediatrician and medical researcher
- Developed guidelines and blood tests to detect sickle cell anemia at birth
- The blood test she developed is used in over 30 states today







### DR. ROBIN WALL KIMMERER

Potawatomi botanist and author

- In 2013 she published Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants
- Her interests include moss ecology and the role of traditional knowledge in ecological restoration

#### NATIONAL BESTSELLER

A hymn of love to the world. —ELIZABETH GILBERT

#### BRAIDING

#### SWEETGRASS



Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants

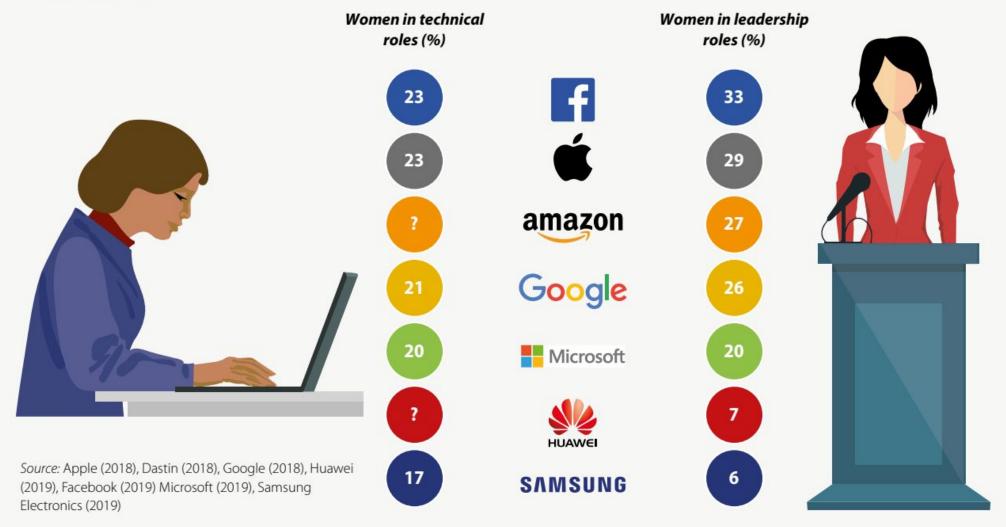
#### ROBIN WALL KIMMERER







#### Figure 3.3: Women in technical and leadership roles in selected top multinational technology companies, 2018–2019



#### UNESCO SCIENCE REPORT (2021)

## DR. TU YOUYOU

- Born in 1930 Zhejiang Ningbo, China
- She won the 2015 Nobel Prize in Physiology or Medicine
- Turned to traditional Chinese medicine texts to find a treatment for malaria
- Discovered artemisinin, a drug derived from the sweet wormwood plant, and is now used to treat malaria







#### DR. VALERIE THOMAS

- Born in 1943 Maryland, USA
- American scientist and inventor
- In 1980, she patented the illusion transmitter, an early 3D technology that is still being used by NASA today
- The illusion transmitter uses concave to transmit optical illusion of a 3D image on the receiving end







DR. KATIE BOUMAN Born 1989

- Engineer and computer scientist
- Contributed to the first direct image of a black hole
- Currently works as a professor in the California Institute of Technology
- Works on new systems for computational imaging







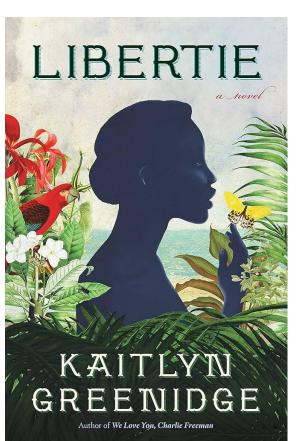


#### DR. SUSAN SMITH MCKINNEY-STE MARD Born in 1846 or 1847

- Became the first African American female doctors in New York upon graduating from New York Medical College for Women
- She co-founded the Brooklyn Women's Homeopathic Hospital and Dispensary
- Practiced medicine in New York as well as Montana and Wyoming
- The book Libertie by Kaitlyn Greenidge was inspired by her life.







## For more information check out our research guide!

