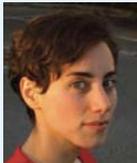


Ada Lovelace Day



Maryam Mirzakhani - mathematician

In the UK many students have just received their "A" level results, the grades of which determine if they will go to University or not.



Dr Carolyn Bertozzi biologist

Subjects such as computing and physics are dominated by boys while girls flock to courses on performing arts and sociology.



Reatha King Chemist

With the need for more workers in Science, Technology, Engineering and Mathematics (STEM) it is sad to see few girls taking up the challenge.

It is fitting, therefore, that we are running a feature on a woman far ahead of her time who has only recently been recognised for her work in computer science.



Dame Sue Ion nuclear engineer

If we are to encourage more girls into STEM subjects they have to be made more appealing; we need to highlight role models, such as the six women on the left.



Dr Frances Allen computer scientist

Women such as Marie Curie, Ada Lovelace or even Rosalind Franklin, who was a British chemist, best known for her research which was essential to finding the structure of DNA.



Dr Liu Lang - Astronaut

The list of women scientists who have gone unnoticed is a long one - perhaps it is time they were brought out of the archives and held up in the glowing colours they deserve - in order to encourage today's girls to seek out a career in STEM subjects.



Professor Dame Jocelyn Bell-Burnell Astrophysicist

Barbara Dixon
Programme Director

Many of you will have heard of [Charles Babbage](#), known as the 'Father of the Computer', but you may not have heard of Ada, Countess of Lovelace, and the part she played in the history of computers.

Ada, was the only legitimate child of Lord Byron, who, on hearing that he had a daughter, was so disappointed that he suggested his wife leave the family home - and take Ada with her.

Ada had an unusual upbringing for an aristocratic girl in the mid-1800s. Her mother insisted that she engage in rigorous studies to prevent Ada from developing her father's moody and unpredictable temperament. Ada took a mathematics correspondence course at the University of London (at that time women were not allowed to attend University). Such challenging subjects were not standard fare for women at the time, indeed, one tutor was very worried that she would injure herself as her woman's body wouldn't be able to cope with her over-powered brain!



Lovelace was just a teenager when she met Babbage at a demonstration of a model of his Difference Engine. She would later translate a description of Babbage's plans for his mechanical calculating machine, adding copious annotations (three times the length of the original article). For her work, Ada is often considered to be the first computer programmer.



Ada died of cancer, aged just 36. Her contributions to the field of computer science were not discovered until 1953, when her notes were reintroduced to the world by B.V. Bowden. Since then, Ada has received many posthumous honors for her work. In 1980, the U.S. Department of Defense named a newly-developed computer language 'ADA' in her honour. Since 1998 the [British Computer Society](#)

has awarded a medal in her name and in 2008 initiated an annual competition for women students of computer science. 'Ada Lovelace Day' is an annual event celebrated on the second Tuesday in October, the goal is to "... raise the profile of women in science, technology, engineering and maths," and to "create new role models for girls and women" in these fields.

Many advances for women have been made in STEM subjects, since Ada Lovelace's first ideas on computers. But there is still a long way to go. For many girls, a career in a STEM subject is not their first choice. Globally, gender bias and hostile work cultures make them hasten their decisions to quit sooner than their male counterparts.

In India, while women represent 46% of all enrolled undergraduate students in STEM, not many go on to pursue careers. Women tend to drop out at key phases in their lives, most notably around childbearing years, because of the culture where household and family duties are considered primarily the woman's responsibility. In Nigeria, male domination in STEM subjects is stark and women make up only 17% of all science researchers.

In the UK, women are still chronically under-represented, accounting for just 14.4% of the STEM workforce. Things are gradually changing, thanks to campaigns and events to encourage more girls to consider taking science-based subjects at school and encourage more women into the STEM workforce.



Federation President Margaret, herself an engineer, has chosen as her theme this year, *Engineering the Future*. We all need to get behind that and do our best to encourage young women into STEM subjects. The [WISE](#) organisation inspires girls and women to study and build careers using science, technology, engineering and maths. Do check out their [website](#) for ideas on how you can help.

Heather Knott (Editor) pp Pam Allinson - APD Education

11 October International Day of the Girl Child

Worldwide, more than 700 million women were married as children, below the age of 18

- More than one in three, or some 250 million, were married before 15.
- Child brides are vulnerable to sexually-transmitted infections and unwanted pregnancies.
- Every 10 minutes, somewhere in the world, an adolescent girl dies as a result of violence.
- In war zones adolescent girls are especially vulnerable to sexual violence, abduction and exploitation for sexual purposes.
- 44% of adolescent girls worldwide aged 15 to 19 accept a husband or partner is justified in hitting or beating them.



Help to work towards gender equality **Sustainable Development Goal (SDG) 5**

18 October Anti-Slavery Day

It is one year since the anti-slavery bill was introduced and the UK Government has now invested £33.5 million to help combat modern day slavery. This funding will include preventative education and training, economic development with agribusiness and rules of law. Getting to the root cause of all MDS is essential - so how can we help?

- Watch what we buy and from whom. This can be done by monitoring our existing supply chains and, if they are not ethically sourced, refuse to purchase the goods. Start a campaign to end it.
- Refugee children in Calais are facing threat of eviction, leaving them with nowhere to go. Without a faster government process to help these children they will be left with two options: traffickers or the train tracks where too many have already died. Help to make a difference by emailing your MP to make sure the Government speeds up reuniting refugee children with their families in the UK. Simply follow [the link](#).

SDG 8, 4, 5, 1



24 October United Nations' Day

United Nations' Day marks the anniversary of the United Nations' Charter coming into force in 1945 and also UN Development Day which encourages use of modern technology to provide solutions. Development is a central role of UN work and advocating on our behalf are Soroptimists UN Representatives in New York, Geneva, Vienna, Rome, Paris and Nairobi, along with SI Advocacy Director, Pat Black and SIGBI Advocacy APD, Margaret Clark.

Our status with the Economic and Social Council (ECOSOC) gives us recognition and a voice at UN and is to be reviewed in 2017, therefore it is essential to complete Programme Focus Reports to record our work.

The universal, integrated and transformative 2030 Agenda for Sustainable Development, along with a set of 17 Sustainable Development Goals was agreed in September 2015. These are integrated, indivisible and interlinked. Link them to the Soroptimist Goals; you may already be achieving them! Make it 50:50 in 2030

SDG 1-17

United Nations Day



Finally, 3rd October is Soroptimist International Club Friendship Day. A smile is the same in any language, so make someone happy by smiling!

Margaret Clark - APD Advocacy

Federation Programme Team



Barbara Dixon
Programme Director



Pam Allinson
APD - Education



Rita Beaumont
APD - Food Security/Healthcare



Margaret Clark
APD - Advocacy



Jan Hemlin
APD - Violence/Conflict Resolution



Laura Longman
APD - Environmental Sustainability



Rayner Rees
APD - Economic Empowerment