

Why liberal arts education matters

SAYEED AHMED

IN the Vatican, there is a fresco by Raphael called "The School of Athens." It depicts an imaginary congregation of many of the great Greek polymaths, philosophers, painters, sculptors, poets, and scientists—the very shapers of modern western civilisation. The core motif is that each of them also represents a Renaissance counterpart. Attempts at identifying the figures have been hypothetical and some still elude identification. Still, the fresco is considered "the perfect embodiment of the classical spirit of the Renaissance" (*History of Art: The Western Tradition* by Janson and Janson). There is a theory proposed by several western historians that human knowledge originated in Greece, went to the Romans, then there was a period of intellectual darkness ("Dark Ages"), followed by the Age of Enlightenment ("Renaissance," 1300-1800).

A BBC documentary, "East to West," aired in 2011, makes an interesting point. This fresco also includes one rather unusual person, Averroes, also known as Ibn Rushd (1126-1198), an Andalusian polymath. Andalusia was a part of modern Spain that the Arabs controlled, with varying sizes, from 8th to 15th centuries. Averroes is distinct from the rest because of his dark skin and turban. Why did Raphael include Averroes? The fact that he was a practitioner of Aristotelian philosophy comes to mind. He made it a lot easier for the Europeans to study Aristotle with elaborate commentaries on his philosophical writings. Raphael appears to have wanted to convey the message that the Renaissance movement is directly linked to the rediscovery of the classical



period of Rome and Greece.

However, there are other views as well. In his book *The Crest of the Peacock: Non-European Roots of Mathematics*, George Gheverghese Joseph, from the University of Manchester, takes us through a journey of mathematics from ancient Egypt to Europe, stopping by at Greece, Mesopotamia, India, the Arab World, China and the Mayan empire. Joseph shows how several civilisations in different parts of the world have contributed to the development of mathematics (and knowledge in

general) to its present form.

The idea of "Dark Ages" originated with the Tuscan scholar Petrarch in the 1330s. Since the advent of postmodernism, scholars started to avoid the use of this term, because it was understood that during the so-called "Dark Ages" significant cultural, mathematical and scientific activities were going on in other parts of the world. However, the original idea behind the term, that darkness fell with the fall of the Romans and the light of knowledge reappeared during Renaissance, and that no other race or

region had any role in the advancement of human civilisation, became popular and remains so to this day.

Just one popular myth can affect a whole nation, as has happened in China. *Romance of the Three Kingdoms* is a 14th-century novel set in the turbulent years towards the end of the Han dynasty, starting in 169 AD and ending with its reunification in 280. It is a mixture of history, memory and myth, which romanticises and dramatises the lives of feudal lords and their retainers who tried to establish a unified Han China. The influence of this novel on modern China is phenomenal. It has been adapted into TV serials, animation films, video games and countless movies. Its storyline has shaped the historical consciousness of modern China, which drives its demand for reincorporation of Taiwan. (See Fukuyama's *The Origins of Political Order*.)

We romanticise the past to fit the present. Inspiring lies are often more popular than complex truths. Despite what we may like to think, history is a complex series of inter-related events where characters play different roles to combine different purposes. Studying history is a continuous process because it gets more and more complex as we come across new facts and interpretations. This is where it also gets really interesting because we learn not just from history itself, but also from fiction, films, computer games, popular songs, drama, and so on. This is where a broad-based, well-rounded education becomes quite relevant.

In a recent article, JM Olejarz puts up a strong point in favour of wider education ("Liberal Arts in the Data Age," Harvard Business Review, Jul-Aug

2017). Olejarz says that choosing a field of study is less important than finding ways to expand our thinking. Although some tech industry leaders have said that anything outside the STEM (science, technology, engineering and management) fields is not relevant in the digital age, more and more recent research works show the reality is rather different. There is a long list of successful tech CEOs who came from liberal arts background. What matters is not the skills one has, but what one thinks. This can come only from a well-rounded learning experience, as opposed to a narrow one.

Why are all these thoughts and facts of any relevance to us? Bangladesh is on a path to become a modern nation. This target is being pursued with ambitious infrastructure initiatives and increased efforts on science and technology education. However, infrastructure and education with a narrow focus cannot make a great nation.

Currently, there is hardly any financial or moral investment in the study of liberal arts, pure sciences, music or art—the very foundations of any vibrant society. Wider education and investment in diverse interests is needed to think, connect dots, analyse and solve complex human problems. Our education should therefore be broadened and aimed at creating a stronger nation, a nation with empathy, which will carve out its legitimate place in the world stage. This way we can benefit from our heritage of thousands of years, and that of the rest of the world, with which we have interacted for mutual benefits over so many millennia.

Dr Sayeed Ahmed is an engineer with an interest in broad-based development.

PROJECT ■ SYNDICATE

A year of successes in global health



MELVIN SANICAS

IN the field of human development, the year that just ended was better than many predicted it would be. A decade after the Great Recession began, economic recovery continued in 2017, and progress was made on issues like poverty, education, and global warming.

But perhaps the most significant achievements of the last 12 months were in global health. I count 18 unique successes in 2017, many of which will help sow the seeds of progress for the months and years ahead.

The first notable success occurred early in the year, when a Guinness World Record was set for the most donations of medication made during a 24-hour period. On January 30, more than 207 million drug doses were donated to treat neglected tropical diseases including guinea-worm disease, leprosy, and trachoma. This extraordinary feat was made possible by the Bill & Melinda Gates Foundation, and by pharmaceutical firms including Bayer, Novartis, Pfizer, and my company, Sanofi Pasteur.

India's elimination of active trachoma was another milestone, as it marked an important turning point in the global fight against a leading infectious cause of blindness. Last year, trachoma was also eliminated in Mexico, Cambodia, and the Lao People's Democratic Republic.

A third key health trend in 2017 was further progress towards the elimination of human

onchocerciasis, which causes blindness, impaired vision, and skin infections.

Fourth on my list is a dramatic drop in the number of guinea-worm disease infections. A mere 26 cases were recorded worldwide in 2017, down from 3.5 million cases in 1986.

Efforts to eradicate leprosy earned the fifth spot on my list, while vaccine advances in general were sixth. Highlights included a new typhoid vaccine, shown to improve protection for infants and young children, and a new shingles vaccine.

Number seven is the dramatic progress made in eliminating measles. Four countries—Bhutan, the Maldives, New Zealand, and the United Kingdom—were all declared measles-free last year.

The war on Zika is number eight on my list of health achievements in 2017. Thanks to coordinated global efforts, most people in Latin America and the Caribbean are now immune to the mosquito-borne virus, and experts believe transmission will continue to slow.

Number nine is polio eradication.

Clinical trials for an HIV vaccine started at the end of 2017, while doctors in South Africa reported curing a young boy of the disease after he received treatments as an infant.



A man fumigates the Nueva Esperanza graveyard in the outskirts of Lima, Peru on January 15, 2016, to prevent the spread of the chikungunya and zika viruses.

PHOTO: ERNESTO BENAVIDES/AFP

Fewer than 20 new cases were reported globally, a 99 percent reduction since 1988. Although the year ended with reports of cases in Pakistan, health experts remain optimistic that polio can be fully eradicated in 2018.

Rounding out my top ten was the creation of the Coalition for Epidemic Preparedness Innovations (CEPI), which was established to develop vaccines for infectious disease threats. Launched with nearly USD 600 million in funding from Germany, Japan, Norway, the UK

charity Wellcome Trust, and the Bill & Melinda Gates Foundation, CEPI aims to reduce sharply the time it takes to develop and produce vaccines.

Huge gains in disease control and prevention were made last year, and the next few items on my list (11 through 16) reflect progress on specific illnesses. For example, rates of premature death fell for non-communicable diseases like cardiovascular disease, cancer, diabetes, and chronic respiratory conditions. Another highlight was the historic

approval of a sophisticated cancer treatment, CAR T-cell therapy, which uses a patient's own immune cells to attack tumors.

Improvements were also made in treating HIV. Clinical trials for an HIV vaccine started at the end of 2017, while doctors in South Africa reported curing a young boy of the disease after he received treatments as an infant. These and other initiatives give new hope to the many who are still suffering from this chronic condition.

Advances in treating gonorrhea, a

common sexually transmitted infection that has become increasingly resistant to antibiotics, are also worthy of mention. Wrapping up my list of disease-specific gains of 2017 is the renewed commitment made by global health ministers to eradicate tuberculosis by 2030.

The final two successes are reminders of how much work remains. In August, the fast food giant McDonald's unveiled a Global Vision for Antimicrobial Stewardship in Food Animals. Although recognition of the food industry's ethical responsibilities for public health is to be welcomed, the pledge also represents a cautionary note about how closely connected food and health really are.

Finally, rounding out my list was the historic Universal Health Coverage Forum held in Tokyo, where global leaders gathered to discuss how to improve healthcare access. The World Bank and the WHO note that half of the world's population still cannot obtain essential health services. I therefore count the December meeting as a "success" not for its achievements, but because it was a reminder to the international community that improving healthcare access remains a long-term endeavour.

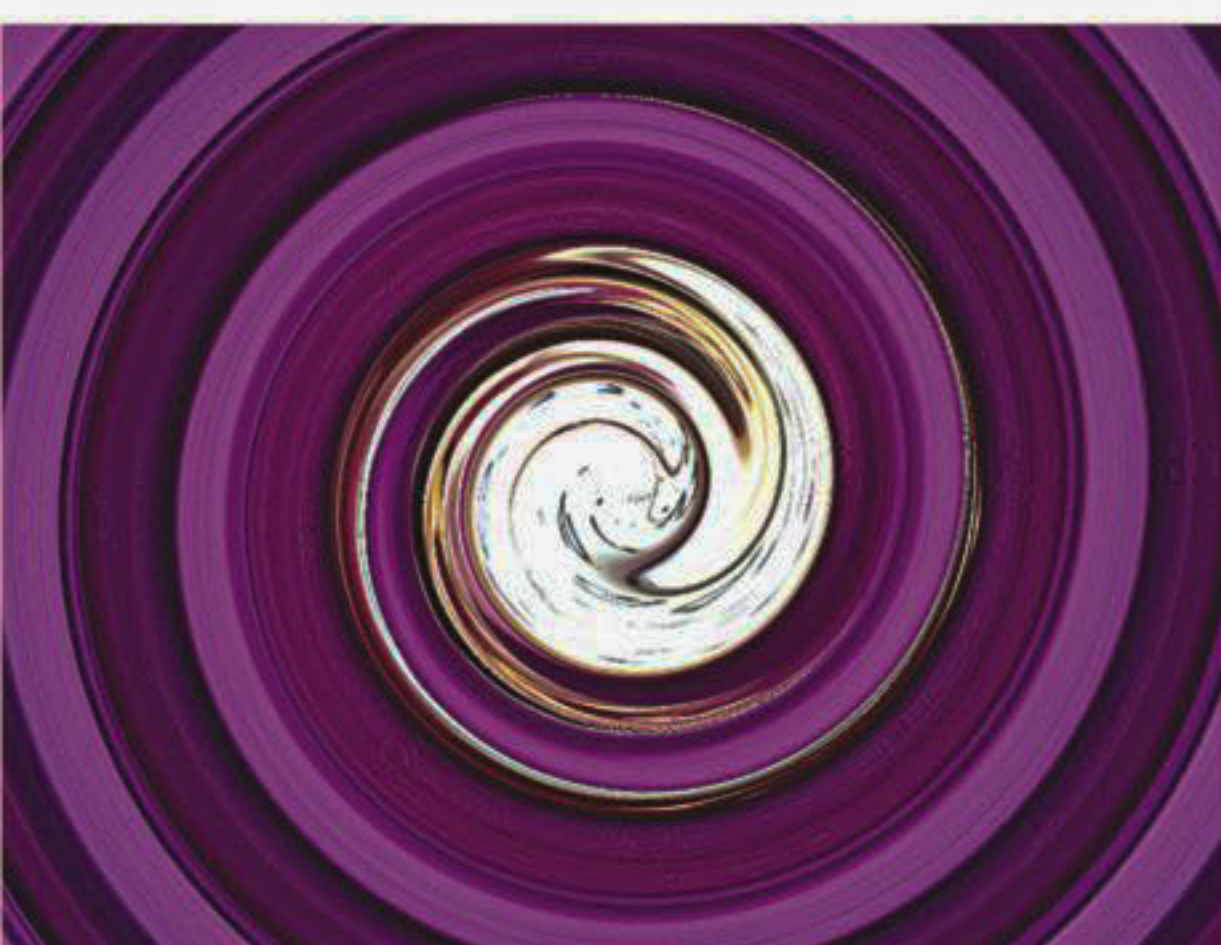
As the global health community resets its annual clock—and I begin cataloguing the big health stories of 2018—we should take a moment to reflect on the 12 months recently ended. Even in a mediocre year, the global health community saved millions of lives. Imagine what we will achieve in an extraordinary year.

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A WORD

A DAY



[W]HORL
NOUN

A pattern of spirals or concentric circles

CROSSWORD BY THOMAS JOSEPH

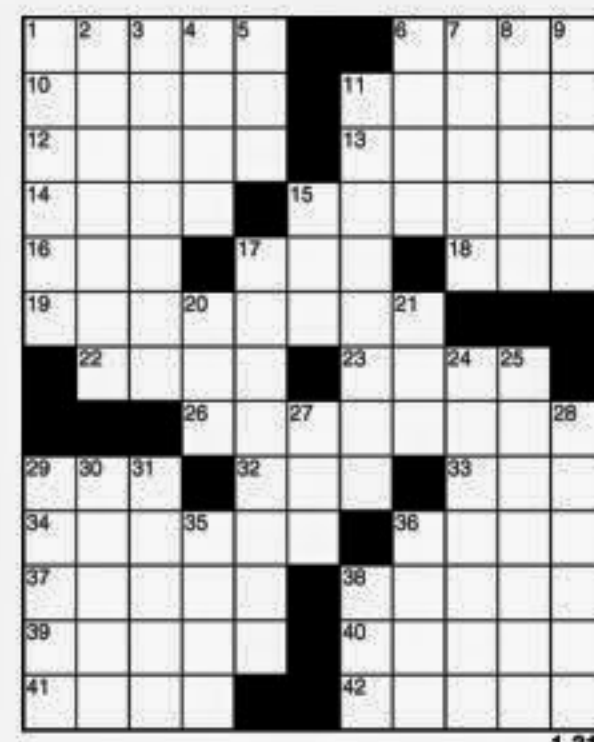
ACROSS

- 1 Old Testament book
- 6 Whole bunch
- 10 Let up
- 11 Character found in kid's books
- 12 Attack
- 13 Viking of the comics
- 14 Study all night
- 15 Countenance
- 16 Gusher flow
- 17 Martini base
- 18 Valentine color
- 19 Coming to a point
- 22 Brussels-based org.
- 23 Ticks off
- 26 Dancing wildly

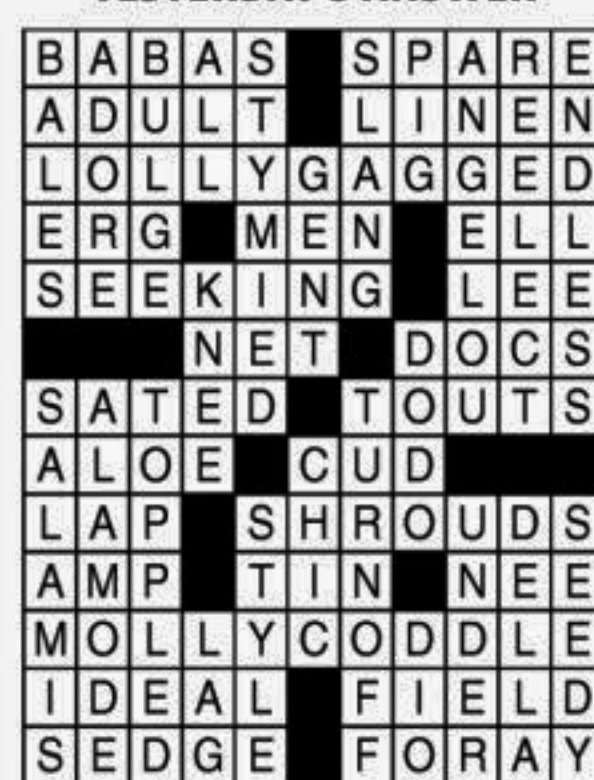
- 29 Cambridge sch.
- 32 Silent OK
- 33 Spoil
- 34 Brunch dish
- 36 Tug-of-war need
- 37 Less common
- 38 Good judgment
- 39 Patron saint of young girls
- 40 German sub
- 41 Reduced amount
- 42 Ship staffs
- 6 Lukas of "Witness" 7 "Enigma Variations" composer
- 8 Maxim
- 9 Studied (over)
- 11 Neighed
- 15 Clock numeral
- 17 Bad puns
- 20 Series-ending abbr.
- 21 Watch-dog sound
- 24 Japanese gowns
- 25 Is short with
- 27 Poker prize
- 28 Welcomes
- 29 Fable finish
- 30 Pol's concern
- 31 Arctic birds
- 35 Sediment
- 36 Singer McEntire
- 38 Total

DOWN

- 1 Team symbol
- 2 From Portugal or Spain
- 3 Tree with white flowers
- 4 Physics bit
- 5 Farm female



YESTERDAY'S ANSWER



BEETLE BAILEY

BY MORT WALKER



BABY BLUES

BY KIRKMAN & SCOTT

