

A. AWAD



The Arab Spring offers hope but no quick fix

Revolutions in Libya and elsewhere have raised hopes for science in the Arab world. But progress will be slow, cautions Rana Dajani.

The apparent success of the popular uprising in Libya after months of conflict has once again focused minds on the prospect for fundamental change in the Arab world. Science is not a high priority for countries that have just rid themselves of dictators, but in the wake of the uprisings and protests it is natural for researchers in those nations and colleagues abroad to see opportunities to improve the generally abysmal state of science in Arab countries.

Significant change is unlikely soon. Six months on from the first events of the Arab Spring, there have been no concrete improvements for scientists here in Jordan, and I get the same impression from colleagues in Egypt and Tunisia. The kind of change needed to improve the state of science takes a long time. It is about rebuilding institutions, providing the right environment, obliterating former habits, dismantling bureaucracies, changing mentalities and re-educating people. Such change will take a generation.

One positive thing that I do see and feel is the general attitude of the people, who are more optimistic that things will change for the better. And officials are more reluctant now to exploit and abuse their positions, as they are more likely to be held accountable for their actions. Although the outside world may see headlines about fancy projects such as the building of new institutions, the change to science required in Arab countries is not about bricks-and-mortar improvement but about building intellectual capacity.

There is no lack of minds in the Arab Muslim world, as shown by the many Arab Muslim scientists from these regions doing great science in Western universities. The problem is the environment, which fails to sustain creativity, curiosity and striking out into the unknown — all of which are essential for science to flourish. Such an environment is created only through experience. The whole community must experience the need to find the solutions. And this requires freedom. Dictatorships in Arab Muslim countries thrive on ignorance and fear, and this lack of freedom filters through the whole community, affecting not just political life but reaching down to the household itself — to how parents deal with their children.

I strongly believe that an essential first step towards freeing minds from the habits of the past is to plant the love of reading in our young children. In this way, they revisit other people's experiences across time and space, learn that there are other ways of living, and develop respect for other perspectives. When children read, their horizons expand and they build the confidence to face challenges, create solutions and think without hindrance. I have developed a programme called We Love Reading (www.weloveread.org) that aims to foster a love of reading among children in the

Arab world by training women to read aloud to children in their local neighbourhoods.

Through donations and discounts from publishers, we have set up 100 children's libraries across Jordan, and the concept is spreading across the region. By next year, some 20,000 children will have benefited.

Children learn to form their own opinions on the basis of reasoning and deduction. But this requires practice, and this is what we need to encourage. Many students at my university have never formed an independent opinion that reflects their own original thinking. The day I got my students writing essays to express themselves was the day one student told me that he felt human, that he was Someone with a capital S. These are the people who will build our communities and nations, who will make a difference, who will take us into the twenty-first century with confidence and progress.

Alongside this cultural shift, we also need to assess carefully the relationship between Islam and science, particularly in fields with an ethical content, such as stem-cell research. Ethical guidelines for bioengineering and biomedical science for the Muslim world must be drawn up by committees that include scientists, physicians, Islamic scholars and Arabic language specialists.

We have established such a committee at my university, and our discussions indicate that stem-cell research is permissible in Islam, as long as it is carried out with the purpose of improving human health. This conclusion must be re-examined as the field advances.

Such a multidisciplinary approach, new to the Islamic world, is essential to challenge stagnant thinking based on literal interpretations of Islamic sources. The Koran is not a book of scientific facts. It contains verses that describe worldly phenomena, but these are presented as evidence of the elegance and simplicity of creation. Islam is a spiritual guide to life. It teaches us how to live in harmony with ourselves, our fellow humans and the world. There is no conflict between Islam and science.

Islam asks us to use our minds to explore the world around us. It calls for the use of scientific methodology and logic in our approach to science. The verses of the Koran are interpreted by humans, and humans are limited by the scientific knowledge of the era in which the verse was interpreted. The path ahead is not easy, and change will not happen overnight. Still, the Prophet Muhammad said: "Do not belittle any act of good."

In Libya and elsewhere, we can reasonably hope that we have seen acts of good. ■

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