

# Technology in the classroom

NISHAT RIAZ & MICHAEL HOULGATE

The kinds of things which are easy to teach are also easy to automate. We need to ensure that we are teaching first rate humans and not second rate robots." With these words, the Education World Forum kicked off last month in London. The EWF brings together over a thousand education ministers, policymakers, academics and experts from 100 countries to discuss the challenges and opportunities facing the world of education today.

The challenges being discussed cannot be overstated. We live in a world of unprecedented change. Technological disruption is now the norm. New technology can create completely new industries (think cloud computing or AI – and all the jobs in these fields that didn't exist ten years ago). Technology is also leading to the automation of many jobs from old industries (the University of Oxford predicts that 47 percent of existing jobs will be automated in the future). In this context, the challenge for policymakers and educators is how to educate our children for jobs that don't even exist yet ie how to teach them the skills of learning and resilience and adaptability that will allow them to adjust to constantly changing circumstances.

The challenge for Pakistan is particularly acute. According to the UN Education Index for 2018, Pakistan's education system ranks 146th out of 187 countries. Around 25 million children are out of school. And for those

who are in school, the education system depends heavily on rote learning and forced memorisation to score higher marks, rather than promoting curiosity and inquiry. Pakistan's literacy rate is just 58 percent; 1.5 million new teachers are needed to meet the demands of existing students. Access to higher education is less than eight percent. The list goes on.

Meanwhile, Pakistan's demographics are at once a potential challenge and a potential opportunity. Pakistan is a very young country – 60 percent of the population is younger than 25 years old. If the education system is unable to provide sufficient opportunities to Pakistan's young people, then any number of social and political problems may arise as a consequence. But if Pakistan can find a way to educate its young people to meet the challenges of a rapidly changing world and if education can successfully unleash the potential of these young people, then there is no telling what Pakistan can do in the future.

So what can Pakistan do to ensure that its education system is preparing its young people for this new world? This is the question that Pakistan's education ministers and policymakers were exploring at the EWF last month. And one of the answers that kept coming up was technology.

While technology lies at the heart of many of the changes that are disrupting existing education paradigms, technology can also create solutions that help education systems

breach existing gaps in quality, capacity and access.

Mobile technology now permeates our daily lives, and provides us with unparalleled access to information. Cell phone access in Pakistan is experiencing exponential year-on-year increases. We are already witnessing more online content designed for mobile delivery. This level of access may be exactly what is required to shape the future of education in Pakistan. But while access to devices, connectivity and digital learning content is spreading quickly around the world, it is not always clear how to harness this technology in the most effective ways. Technology does not always bring the best quality education to students – and we increasingly see virality being privileged over quality. This is one risk of using technology more in our classrooms. Meanwhile, there are countless examples around the world, of education systems which have purchased large amounts of shiny, expensive new gadgets – only for this equipment to sit unused and gathering dust, with teachers and students unclear how to make best use of it. This is another risk of relying on technology.

But when technology is utilised effectively, when policymakers deploy specific types of technology in a thoughtful and targeted way to meet particular problems, then it has the potential to revolutionise education. It can transform classrooms and education systems in any number of ways.

For children for whom there are barriers

to attending school (social, cultural, geographical, etc), technology can provide ways to learn at home or in other settings, through lessons delivered straight to one's phone. One of the most important elements in ensuring good quality education is the teacher. But what can be done in remote areas where it is difficult to get good, qualified teachers in classrooms? Technology can now be used to beam lessons from highly trained teachers into schools in remote parts of the country.

The British Council is already delivering such classes in Latin America. In Uruguay, for example, British Council teachers deliver English lessons to students in public schools across the country via video conferencing. In the future, we will still learn by engaging directly with great educators, but increasingly we will be able to access more great educators using technology.

Technology can be used to collect almost infinite amounts of data, which can then be used to improve education models. We live in a world where there is an abundance of information, and education is naturally data rich. Amalgamating and analysing this data can tell us a lot about what succeeds and what doesn't in the classroom – helping teachers figure out which activities work, which lessons plans are most effective, which textbooks lead to the best learning outcomes, and how long these should be studied for the best results, when short quizzes are effective, and so on. Making

classrooms 'digitally transparent' is putting huge amounts of information into the hands of teachers and policymakers, empowering them to improve the quality of education being delivered.

Technology can also be a game changer for exams and assessment. Computer or phone-based exams, compared to traditional paper-based exams, can give candidates more flexibility, make marking faster and more consistent, make exams delivery more efficient, and make cheating more difficult.

Education needs to be made more interactive and hands-on, to encourage learning by doing. Technology can help with this. Interactive white boards encourage all students to be involved in interactive learning. For more personalised learning, laptops and tablets are increasingly pervasive in the classroom. When implemented correctly, software in the classroom can allow students to learn at their own pace.

Education in Pakistan and around the world needs to be reformed to meet the challenges of a rapidly changing world. We need to give students the skills they need to succeed in a labour market which is constantly being disrupted by new technology. But when thinking about how technology can help, we would be wise to focus on the demand side, not the supply side. As one speaker at the EWF put it, "Technology may be the answer, but we mustn't forget what the question is."

Nishat Riaz is the British Council's

## Sorrows of Aligarh

MURTAZA SHIBLI

For the last five years, the Aligarh Muslim University (AMU) has been under a continuous and vicious assault from right-wing Hindutva groups. Their main motivation, according to various Muslim and Dalit groups, is to erase the historic Muslim character of the institution as well as stoke hatred to garner support for the forthcoming national elections.

With more than 35,000 students from across India, the majority of them Muslims, the AMU is an essential part of India's Muslim heritage and symbol of its progress and promise. It has produced many top Muslim public figures, intellectuals and politicians since 1947 and is ranked 10th in the central Indian government's latest ranking of public universities.

Because of the AMU's position as being central to India's Muslim intellectual identity, Hindutva groups are increasingly targeting it for its symbolic value as well as for the public and media attention that any controversial activity around it garners nationally. Since it is a central university, it is funded and managed directly by the federal government.

The latest incident seems to be more alarming than what happened in the recent past as this is aimed at creating widespread discontent and provocation with direct help from a media outlet. Early this week, 14 AMU students were booked for sedition after they challenged the crew from a private television channel, Republic TV, for hurling abuses and innuendos at the students and calling the institution a "factory of terrorism" per eyewitness accounts.

Headed by a well-known right-wing journalist notorious for his pro-Hindutva and anti-Muslim rhetoric, Arnab Goswami, the television network has a BJP-affiliated politician and parliamentarian, Rajeev Chandrasekhar, as the major financier. Goswami along with his team was filming for an unauthorised show on the campus. Talking about the incident, AMU student's union president, Salman Imtiaz, said the crew was "asking farcical questions and labelling the AMU with (sic) terror and anti-national activities". According to him, when the students

challenged the journalists about their style of questioning and advised them to seek proper permission for filming from the authorities, "the reporters heckled the students and the female reporter threatened to frame false sexual harassment charges against the students." As per Imtiaz's account, this led to disruption in the campus, "followed by a reaction from a well-armed gang of BJP terrorists who started beating AMU students".

In what has now become a classic Hindutva response in such situations, Mukesh Lodhi, one of the leaders of the Yuva Morcha, one of several youth groups associated with the ruling BJP, filed a complaint with the police accusing the students of having shouted pro-Pakistan and anti-India slogans. Lodhi, in his FIR, also claimed that "hundreds of AMU students" surrounded his vehicle and assaulted him and fired at him.

The complaint by the Hindutva leader resulted in the filing of nine charges – including sedition – against 14 students but no action has been taken on the two separate complaints filed by the university administration. The administration filed a complaint each against the journalists for entering the campus without permission, and the unidentified miscreants for indulging in arson and unlawful activities. This is not for the first time that the police have displayed an openly partisan and pro-Hindutva approach.

Early last May, in the first incident of its kind, more than a dozen Hindutva men invaded the AMU campus equipped with firearms and sticks and started shouting incendiary slogans when the former Indian vice-president, Hamid Ansari, was inside the campus. Ansari had been on the receiving end following a bitter controversy provoked by the local BJP parliamentarian, Satish Gautam and supported by many other Hindutva leaders across the country, on removing the portrait of Jinnah from the university that hung there since 1938.

According to some AMU students quoted by the media at the time, "goons first burnt an effigy of Mohammad Ali Jinnah at the AMU's Bab-e-Syed gate. After this, they started shouting slogans against [the] AMU and the university administra-

tion. Later, they went on to assault another student". Some among the posse started waving pistols and country-made revolvers in front of the building where the ex-vice president was staying. Incidentally, Ansari who is an alumnus of the university was to deliver a talk on India and pluralism and receive a life membership of the students union. The event was cancelled due to the violence. The police refused to register an FIR against the perpetrators, who allegedly belonged to the Hindu Yuva Vahini, a militia established in 2002 by Yogi Adityanath, the current chief minister of Uttar Pradesh, the province in which the AMU falls. Besides, the six members of the violent mob who were overpowered by the students and handed over to the police were released without ascertaining their role in the violence.

Later, the police also attacked a peaceful student demonstration being held against the Hindutva violence inside the campus. According to reports, they were mercilessly beaten by batons and attacked with tear-smoke shells. The police also snatched the mobile phones of several students who had recorded the violence. More than 30 students were critically injured, including the president and the secretary of the students' union. A university spokesperson had shown 'deep concern' over the police behaviour while one teacher, Najamul Islam, remarked the students were treated as enemies.

The latest provocation by Republic TV and its chief-architect-of-hate, Arnab Goswami, is a renewed attempt by Hindutva forces to provoke hatred to justify vigilante violence against the premier Muslim education institute, and more so for some quick electoral gains. Several academic studies suggest that after every riot and incident of anti-Muslim violence, the BJP has always gained electorally. Earlier in the week, the BJP's local parliamentarian for Aligarh, Satish Gautam, had demanded the removal of the word 'Muslim' from the university because it caused offence and provocation. The latest CIA report fearing widespread anti-Muslim violence in the run-up to the forthcoming national elections in India suggests that we are headed for some very grim times.



## Money and politics

SARAH ANDERSON

Ammy Klobuchar could've waited for the temperature to rise above 15 degrees before launching her 2020 presidential bid. Instead, she chose to risk frostbite and make her pitch in the middle of a snowstorm – all for an election more than 600 days away.

The Minnesota senator is just one of around a dozen Democrats who've already thrown their hats into the presidential ring or hinted they intend to soon.

What's the big rush? People in other countries think we're insane for having such long political races. By one count, in the timeframe of the 2016 U.S. election, you could've fit about four elections in Mexico, seven in Canada, 14 in the UK, and 41 in France.

If lengthy campaigns boosted voter education and turnout, I'd be all for them. But there's scarce evidence of that. The United States ranks 26th out of 32 industrialized countries in the share of the voting age population that shows up at the polls.

So what can we do to avoid contests that shift politicians' focus away from governing to endless campaigning?

We could try to compress our in-terminable primary process. But that

wouldn't make much difference when candidates are launching their bids a full year before the Iowa caucus. A more effective step would be to slash the cost of competing for higher office. Candidates bolt out of the gates because they know it takes a long time to raise the mega-millions required for a White House run.

Imagine how many phone calls and fundraisers went into amassing the \$6.5 billion spent on the 2016 election. A quarter of that huge sum came from donors who contributed at least \$100,000.

Unfortunately, the US Supreme Court ruled in 2014 that it was unconstitutional to place overall limits on federal campaign contributions. But we're seeing a rise in candidates who voluntarily rebuff deep-pocketed donors.

"We need to end the unwritten rule of politics that says that anyone who wants to run for office has to start by sucking up to a bunch of rich donors on Wall Street and powerful insiders," Massachusetts Senator Elizabeth Warren told the crowd at her own frigid campaign launch. She won't be taking a dime from political action committees (PACs).

Senator Bernie Sanders showed in 2016 that it's possible to raise large sums from individual donors. His total haul: \$228 million. A proposal

by House Democrats would go a long way towards boosting small contributions as a counter to the mega-donors.

As part of a sweeping anti-corruption initiative, H.R. 1 would grant tax credits for contributions of no more than \$50. Candidates could also volunteer for a public financing option through which the federal government would put \$6 into their coffers for every \$1 raised in small donations (of no more than \$200).

The Democratic proposal would also force Super PACs, which can raise unlimited sums to advocate for or against candidates, to make their donors public. This might discourage some of the shadiest forces from attempting to buy elections.

The bill includes a number of other important pro-democracy proposals. It would crack down on partisan gerrymandering of congressional districts and corrupt lobbying practices. It would also make Election Day a holiday for federal employees, hoping private sector businesses would also give their workers the day off.

None of these changes, I'm afraid, would have an immediate impact on the duration of US election campaigns. But by making the process more equitable, these reforms might make the 600-plus days at least seem shorter.

## Letters to the Editor

### Back to the IMF

This refers to the letter 'Tough decisions' by Dr Najeeb A Khan. I was quite disappointed to see that the PTI, which has been a staunch opponent of seeking loans and bailout packages, is likely to receive an IMF bailout package. The glimpse of the IMF's 'harsh conditions' are already in front of us. A welfare state cannot be developed if the government keeps burdening the middle class and the poor. The rich, with their unlimited resources, are not affected by the increase in gas prices or high tax rates. They can easily say that taxing people or increasing prices is essential to increase government revenue. Overseas Pakistanis with their strong currency can ask fellow Pakistanis to bear the hard times, but the reality is the real effects of the hard times will only be felt by the people with less resources.

Hajra Zaidi  
KARACHI

### Visit Pakistan

Where other countries profit off the thriving tourism industry, Pakistan has been ignoring it at its own peril. The tourism sector helps a country receive a speedy and steady inflow of much-

needed foreign exchange, in addition to creating a desired narrative in and outside the country. Pakistan can tackle its worsening economic crisis if it takes adequate steps towards promoting tourism. It is laudable that the PTI-led government has vowed to promote tourism and, in this regard, been working to introduce a visa-on-arrival policy for nationals of more than 50 countries.

Aamir Khan Wagan  
LARKANA

### Khewra tourism

The Khewra Salt Mine is an iconic place in the Salt Range. The region is also home to ancient religious sites, fortresses, monasteries and temple complexes. The presence of a gigantic salt mine, lakes, historical, religious and ecological heritage sites within a unique geological setting makes salt range a region which if developed properly in terms of basic infrastructure and essential amenities can generate significant economic activities in the form of domestic and international tourism. My recent visit to the mine showed me hanging live electric wires, crumbling wooden supports, faulty lights and a dilapidated track inside the tunnel, which makes the 1km-long-walk cumbersome. The poorly

maintained area outside the mine presents a shabby look. With little efforts, it can be transformed into a beautiful park providing more facilities to tourists. It is time the PTDC and the PMDC took steps to transform Khewra into a world-class tourist site.

Dr Bashir Ahmed Wani  
ISLAMABAD

### Dangerous product

Previously, the relevant authorities in Sindh managed to place a complete ban on the sale of gutka across the province. All was going well until recently when pan shop owners resumed selling the harmful product. Earlier, the price of one packet was between Rs10 and Rs20. The post-ban price of the product has now reached Rs50. Gutka is seriously injurious to health and, according to health experts, is one of the prime causes of mouth cancer. The healthcare authorities should conduct awareness programmes across the country to educate people regarding the harmful effects of gutka. Healthier alternatives should be made available in the market to help people overcome their gutka addiction.

Faisal Ansar  
KARACHI

### Increased consumerism

Our economy is in a mess and diving deeper by the day. Imports have steadily increased, but exports are on the decline. Our debt sustainability is at risk because revenue collection is under-performing and expenditures are yet not being slashed. When one cannot manage the affairs of a single house without a sound and sustainable economy, how can one run a country of more than 200 million people on a borrowed economy with cosmetic measures and when it is being encouraged to become on the path of consumerism, instead of production? Nothing much is going to change if our society keeps on marching on the path of consumerism. Our rulers must ponder over this point that economically Bangladesh is developing faster than Pakistan. Its currency is stable and its foreign exchange reserves are many times better than ours.

Hashim Abra  
ISLAMABAD

### Foul fowl

Unhealthy edible products available all across the country pose serious threats to public health. The unsupervised sale of broiler chicken, which is extremely unhealthy and dangerous to human

health, shows that our country has no mechanism to regulate the sale of unhealthy food. These broken chickens which are supposedly injected with hormones are causing a lot of health problems among people. But since they are available at affordable rates, neither consumers nor government authorities are saying anything against it.

Kashaf Zarar  
KARACHI

### Fixing the economy

This refers to the article 'Room for reforms' by Dr Farrukh Saleem. The writer has mentioned some alarming, albeit lesser-known, facts that have an adverse effect on our economy. According to the writer, a billion cubic-feet of gas is being stolen every day. In public procurement, an amount of Rs1.4 trillion is being lost to corruption. Pakistan's 195 PSEs are losing Rs1.1 trillion every year. Circular debt worth Rs1.5 trillion is holding Pakistan's power-sector hostage. In my opinion, these are all the areas that need to be fixed on an urgent basis. Besides launching new projects, the government shouldn't lose sight of those which are in losses for many years now.

Air Cdre (r) Azfar A Khan  
KARACHI