Think before posting about your children online

LAILA KHONDKAR

SOCIAL media is flooded with children's photos, quotes and videos that are being posted by their parents. Some tend to document everything, from their children's first words, first steps, first days at school to most other activities, conversations, achievements and challenges of their lives. There are even some videos where children are feeling sad or crying.

The above are examples of "sharenting", which refers to the practice of parents publicising content about their children on online platforms. At present, this is common across various countries of the world, including Bangladesh. Sharenting poses child protection risks and raises a lot of questions about privacy, consent and the parent-child relationship.

The disclosure of children's personal information, such as geographic location, name, date of birth, pictures and the schools they attend, might expose them to risks, as people with malicious intent may use this information to harm children. Many share photos of their children in a variety of intimate settings, where they are not properly dressed. Such pictures of children are found on websites for pedophiles. Australia's eSafety Commissioner reports that almost half of all images found on the pedophile image-sharing site he reviewed were originally posted with a parent's consent on social media and family blogs. Sharented information is often abused for "identity theft" when imposters stalk or commit fraud against children, or even blackmail their families.

Due to the prevalence of sharenting, children develop a digital footprint from a young age, over which they have no control. A study by the University of Michigan found that over half of the participants have shared embarrassing content about children online. Twenty-seven percent of them have shared photos that are deemed potentially inappropriate. This might lead to negative consequences. For example, children could be ridiculed at school. Moreover, college/university admission officers and potential employers may happen to access the inappropriate material. This could shape their impression of a candidate and negatively affect academic or career opportunities. Children should be free to define themselves online, on their own terms, without being burdened by the image created by their parents. Sharenting fails to respect children's autonomy over their persona.

PHOTO: **CHILD RESCUE COALITION**

Over 55 percent of children said they would not upload news about or images of themselves to their social media feeds. This is according to a survey of over 16,000 students by VotesforSchools (This platform allows students in the UK to vote and comment on issues affecting their lives). Some were concerned about being embarrassed or the longevity of content, which could remain online indefinitely. Others expressed concerns about their personal data being compromised. One of the children said: "Although our parents mean well, sometimes the aftermath of a post can be disastrous."

It is unrealistic to expect that parents will stop sharing about their children altogether. Social media has become a part of everyday life. Sharing can bring families together, especially when they are geographically dispersed. Children also appreciate that. Sometimes, parents can receive support from others through posting.

However, social media is still evolving and there are no fixed rules. Much of it is common sense. As a general rule, sharing should be kept to a minimum. There is a need to resist the temptation to document and post everything. Parents need to keep in mind whether their children will feel ashamed, embarrassed, anxious or annoyed about any of the posts. Is there any potential harm for the child? Will this affect the parent-child relationship?

> *The disclosure of children's personal information, such as geographic location, name, date of birth, pictures and the schools they attend, might expose them to risks, as people with malicious intent may use this information to harm children.*

Children have the right to be protected from all types of harm, which includes the harm caused by sharenting. Sharing personal details of children should be avoided. Parents should try not to show that they have a regular pattern every day and should turn off geo-tagging (which tells internet users where a person is). Simple steps such as checking privacy settings to ensure that the posts could be viewed by trusted friends and family only, and asking others not to share content of the children on their accounts, could be a good start. This does not guarantee that the image or text will not be abused, but parents must do everything they can to protect their children. Parents should not share pictures that show their children in any state of undress (e.g., bathing suit, scant attire).

The most vital aspect to this sort of social media use is to have a child-centred approach. Parents must ensure that they listen to children. By age four, children have an awareness of their sense of self. Parents should ask children if they want friends and family to know about the things being shared. Parents need to understand that children have the right to say "no" regarding images and the text that they post. It is important that parents respect children's views.

The London School of Economics (LSE) has started a project titled "Preparing for a Digital Future". Sonia Livingstone, professor of social psychology in the department of Media and Communications and one of the project's researchers said, "We interviewed several families where even small children wished their parents would share fewer photos, and consult them more. We observed in a few families that children are even learning to tell their parents to stop. It's a matter of respect and consent, and protecting that is important, more than the actual fact of sharing itself. What will matter to children is to feel they have agency, respect and dignity—that's at the heart of privacy. So anyone sharing or using their images should prioritise this."

In Bangladesh, there is a need for research on sharenting and listening to children's perspectives. We can utilise the lessons learnt on sharenting from other countries as well in the best interests of children. Awareness of Bangladeshi parents on the risks of sharenting as well as capacity to minimise harm should be developed.

If parents are sharing online to get likes, then children will learn that posting is a way of being validated, which is negative for their development and wellbeing. It is the responsibility of parents to practice good social media etiquette so that children learn how to behave in online settings and navigating through the digital world becomes an empowering experience for them.

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A second nuclear power plant in Bangladesh: How do we choose it?

KM MAHBUBUR RAHMAN

THE Rooppur Nuclear Power Plant, the first ever nuclear power plant in Bangladesh, is being built. The plant capacity is 2400 MW, with two Russian reactors (model VVER-1200 of III+ generation). It is a fast track project scheduled to be completed by 2024. Meanwhile, Bangladesh plans to build a second nuclear power plant on the seaside, and that is a prudent decision. The source of cooling water is the Bay of Bengal, whose summer water temperature is 31 degrees Celsius. Preliminary work is already underway and a few tentative sites have been selected in the coastal districts on the south. Now is the time for necessary homework to settle on a judicious choice for the second plant. The aim is to select a thermally efficient plant suitable for the weather conditions of Bangladesh.

Before we do so, we must evaluate the thermal performance of a plant and see how cooling water temperature influences the plant output. Observing modern design approaches for improvement of plant capacity and learning from the experiences of other nuclear power plants in Asia can contribute towards this.

The nuclear power plants up to generation III+ are basically subcritical steam power plants. Unlike coal-based steam power plants, they cannot attain the supercritical or ultra supercritical temperature level and achieve higher efficiency of 40 to 45 percent. The reason for this is that the primary coolant water temperature in the reactor core itself has a ceiling to about 330 degrees Celsius, much less than the critical temperature (374°C), and the steam temperature at turbine inlet is limited to 285 degrees Celsius. Also, there is no scope to superheat the steam inside the reactor.

As per rule of thermodynamics, the higher the steam temperature at turbine inlet and lower the temperature in the condenser, the higher will be the thermal efficiency. So, the advanced designs of nuclear power plants try to extract as much work as possible from steam, at far below the atmospheric pressure to increase output and efficiency. As the condenser pressure decreases, so does the steam condensing temperature. The condensing temperature is selected depending on the cooling water available near plant sites. The standard design cooling water temperature is 20 degrees Celsius, which will condense steam at as low as 32 degrees Celsius. So the plants can achieve the designed capacity if situated at seasides in cold countries, but not when situated in hot countries, where seawater temperature can go as high as 35 degrees Celsius. Again, only one-third of the heat energy generated in the reactor core can be converted into electricity for the grid. The remaining two-thirds of heat will be ejected into the environment. It is the cooling water that carries this unused heat to the sea or releases into the atmosphere through cooling towers. The efficiency of nuclear power plants is thus limited within 33 to 35 percent.

Cooling water temperature is very important for the thermal performance of steam power plants, whether they use nuclear fuel or fossil fuel. High cooling water temperatures reduce thermal efficiency. That is why plants in cold countries are more efficient than those in hot countries. Again, the thermal performance is better in winter than in summer. For example, a plant operates at full capacity when the cooling water temperature is 20 degrees Celsius and steam passes through turbines at a designed flow rate. As the cooling water temperature rises to 32 degrees Celsius, the turbine will experience a back pressure for inadequate condensation of steam. The steam flow through turbines will reduce and the duty point will adjust itself at a point of higher condensing temperature and pressure. As a result, plant capacity will reduce. A previous study says that for each degree rise of cooling water temperature, the capacity is reduced by 0.45 percent and efficiency by 0.12 percent.

FILE PHOTO

How do nuclear power plants in other regions compare? At the Barakah Nuclear Power Plant (BNPP) at Abu Dhabi in UAE, there are four nuclear power plants with Reactor model APR-1400 of generation 3+ from Korea. They are still under construction on the coast of the Gulf, although one of them has started operating. The total nominal capacity here is 5600 MW.

These plants will use once-through condenser cooling water systems. The summer temperature of Gulf seawater is 35 degrees Celsius. On the other hand, two nuclear power plants of the same model APR-1400 are in operation at Shin Kori, Korea, where seawater temperature in summer is 20 degrees Celsius. Due to the cooling water inlet temperature difference of 15 degrees C, a unit of BNPP will produce 95 MW less than that in Korea. Because of high cooling water temperature, the plants will be highly derated (reduction of capacity).

BNPP also has some environmental prohibitions. The plant will shut down if the cooling water inlet temperature becomes 38.5 degrees Celsius. Also, there is a bar for water discharge temperature to sea (above 40 degrees Celsius). For compliance, the plant cooling system will have a bypass mode for mixing normal seawater with hot leaving water to lower the temperature below this bar. This restriction is likely to reduce output further.

Again, the standard condenser model designed for the 10 degrees Celsius temperature range will not be suitable for the Gulf site. A larger condenser of 7 degrees Celsius range can be used with higher pumping capacity for increased water flow. That will call for a customised design of the cooling system.

Another plant that we can refer to is the Kudankulam Nuclear Power Plant (KNPP) in India, built with two reactors, model VVER-1000 of generation III (made in Russia). Both plants are operational with a total nominal capacity of 2000 MW. The plants have seawater condenser cooling systems with the temperature range of 7 degrees Celsius. The summer seawater temperature is 31 degrees Celsius, and the discharge of hot water to sea is 38 degrees Celsius, which is below the limit of 40 degrees Celsius.

According to a report, the plant KNPP-2 reached the nominal capacity of 1000 MW on January 21, 2017. It is noteworthy that the plant at least achieved the nominal capacity in winter, if not in summer. It is also evident that the design condenser temperature is near 42 degrees Celsius. Such a model is suitable for Indian Ocean belt as far as thermal performance is concerned.

The examples of these plants make it clear that an energy efficient plant for Bangladesh will be one that is designed for tropical conditions, with cooling water temperature at 31 degrees Celsius and steam condensing temperature of 42 degrees Celsius. Higher capacity plants (like AP1400) are definitely alluring, but will be highly derated if used in Bangladesh. This is not desirable as they add up and create a big gap between installed capacity and actual generation. This difference between capacity and generation is what gives the wrong impression of overcapacity in the power generation sector.

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QUOTABLE *Quote*

E. M. FORSTER
(1879–1970)
English writer

So, two cheers for Democracy: one because it admits variety and two because it permits criticism.

CROSSWORD BY THOMAS JOSEPH

ACROSS
1 Dropped-tomato sound
6 Evergreen tree
10 Genetic twin
11 Bank offerings
13 Littlest of litters
14 Polygon corner
15 Had dinner
16 Light brown
18 Pale
19 Graduate's topper
22 Mel of the Giants
23 Spur on
24 Kayak's cousin
27 Take the wheel
28 Leave out
29 Unopened rose
30 Computer part
35 Sea, to Simone
36 Pussy foot
37 Misery
38 Let up
40 Sun-dried brick
42 Composer Erik
43 Like oxen
44 Beholds
45 Garden starters

DOWN
1 "Get lost!"
2 Demoted planet
3 Solitary sort
4 Industrious insect
5 Having a will
6 Fallback strategy
7 Charged particle
8 Apps that urge users to register
9 Blow up
12 Return address name
17 Museum focus
20 Molar, for one
21 Surpass
24 List separators
25 One-celled creatures
26 Fertilizer ingredient
27 Transit systems
29 Lingerie item
31 Fencing swords
32 Came to
33 Like a judge
34 Actions
39 Even score
41 Buck's mate

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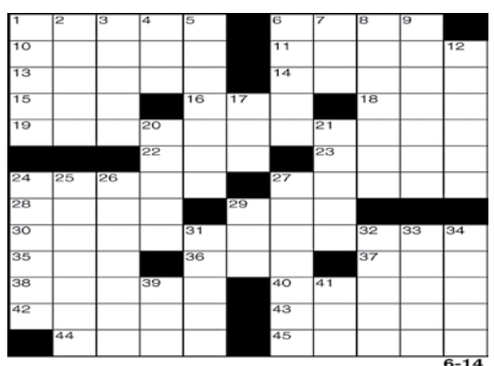

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YESTERDAY'S **ANSWERS**

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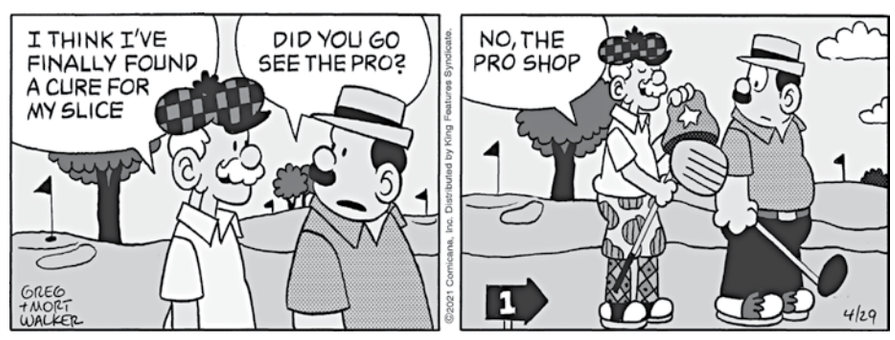
BEETLE BAILEY BY MORT WALKER



BABY BLUES BY KIRKMAN & SCOTT