Tech breakthroughs of 2018

Recently there's been a video going around YouTube titled "Tech Failures of 2018" and it chronicles all the apps and services that went out of business this year. While that sets a more gloom close off for the year, we often forget about the innovations that took place around the calendar on account of it being first generation technology or general scepticism. But a lot of the tech breakthroughs that have happened throughout this year are a result of years of testing, prototyping and in general envisioning, if you may. And with that, here are some of the best technological takeoffs for the year of 2018.

3D Metal Printing

3D printing has become increasingly prominent and affordable over the last few years in the west. But to think how far this technology would come in just a couple of years is insane and to think that it's possible to print metal now, yes actual hard, cold when you step on it metal. Desktop Metal is already shipping low cost printers capable of making small metal creations. They are even offering software which can help users create a design for their metal objects. While Desktop Metals printers can only produce tiny metal objects, companies like GE have already started testing on a printer capable of making larger metal pieces Companies like Desktop Metal are already shipping low cost metal printers capable of generating small metal

creations and are offering software that helps users create a design for their metal objects. Similarly, GE Additive is testing a printer capable of making larger metal pieces which they unveiled last year. Currently HP and GE Additive are the two main producers of 3D printers and with more companies coming in with their own form factors and innovations, who know what else we would be able to print by this time next year.

Google's Translator Pixelbuds

When Google first announced the Pixelbuds most of us questioned its form factor and

price. But its standout feature, the in-built in-ear translator is a Hitchhiker's dream realized. The translator feature works in real-time and while Google Translate already offers a conversation feature, the PixelBud works around most of the issues with background noise. The earbuds allow you to split the signal between the phone and the earbuds giving each person control of a microphone, helping the speakers maintain eye contact taking away the trouble of having to pass a phone back and forth.

Advents in AI Cloud Based Services

So there have been many great leaps when it comes to the advancement of AI throughout the last couple of years and it's difficult to pick the best moments out of the many achievements. But AI's integration in cloud based services is perhaps the most widespread use of AI and every major player is jumping on this right now. While Amazon is currently dominating cloud AI with its AWS subsidiary, Google is challenging that with its own open-source AI library, Tensor Flow, which can be used to make other machine learning software. And recently, Google announced Cloud AutoML, a suite of pre-trained systems that could make AI simpler to use. Microsoft on the other hand, has its own AI-powered cloud platform, Azure. But the use of AI isn't just a tool for enhancing cloud based services, it's also been instrumental in testing out the limits of what software and hardware can

achieve as opposed to the human mind. One of the major highlights of the year includes, Google Duplex, an answering machine which can receive phone calls, deal with spam callers, book and cancel your appointments.

Zero-Carbon Natural Gas

The carbon footprint that large corporations leave behind for the world to swallow is becoming increasingly alarming as time goes on. Carbon Dioxide emission is a major cause of global warming and requires head-on tackling for the future ahead. However,
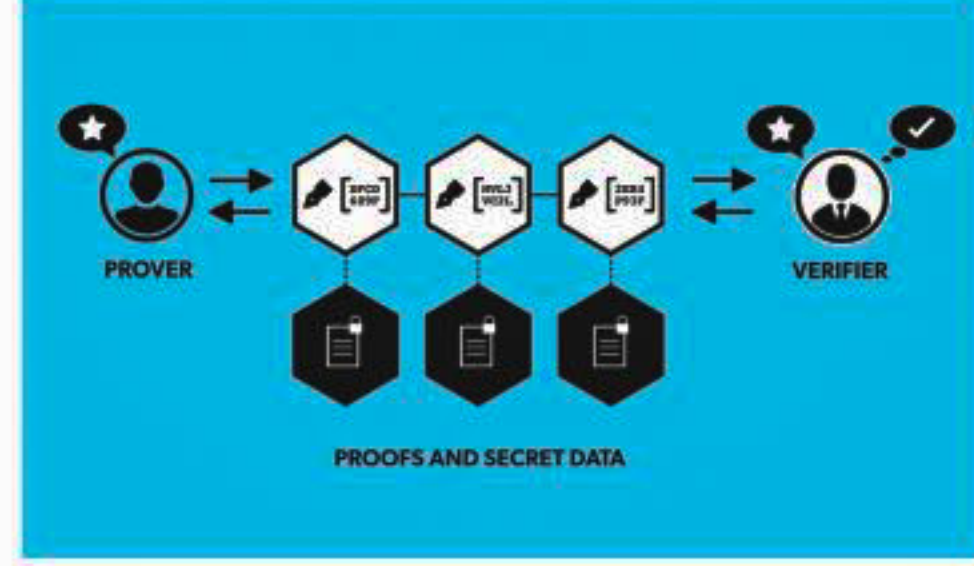

there are some companies out there like Net Power, who are testing a technology that could make clean energy from natural gas a reality. They believe that they can generate power as cheaply as standard natural-gas plants and capture essentially all the carbon dioxide released in the process.

Zero-Knowledge Proof for perfect privacy

Zero-Knowledge Proof is an emerging cryptographic protocol. It is the gateway towards achieving perfect and fully secured online privacy. Though work on this type of technology has been going on for years now, it's only after the boom of cryptocurrencies, that major attention was paid to this protocol. Cryptocurrencies, as we know it, are not private and aren't safe to say the least. Zcash can be considered as being the first to use a practical zero-knowledge proof system with Zcash's developers using a method called a zk-SNARK (for "zero-knowledge succinct non-interactive argument of knowledge") to give users the power to transact anonymously. Vitalik Buterin, creator of Ethereum, the world's second-most-popular blockchain network, has described zk-SNARKs as an "absolutely game-changing technology."

While some of the technology mentioned here aren't still quite tested and so we will have to wait and see how they pan out. But for
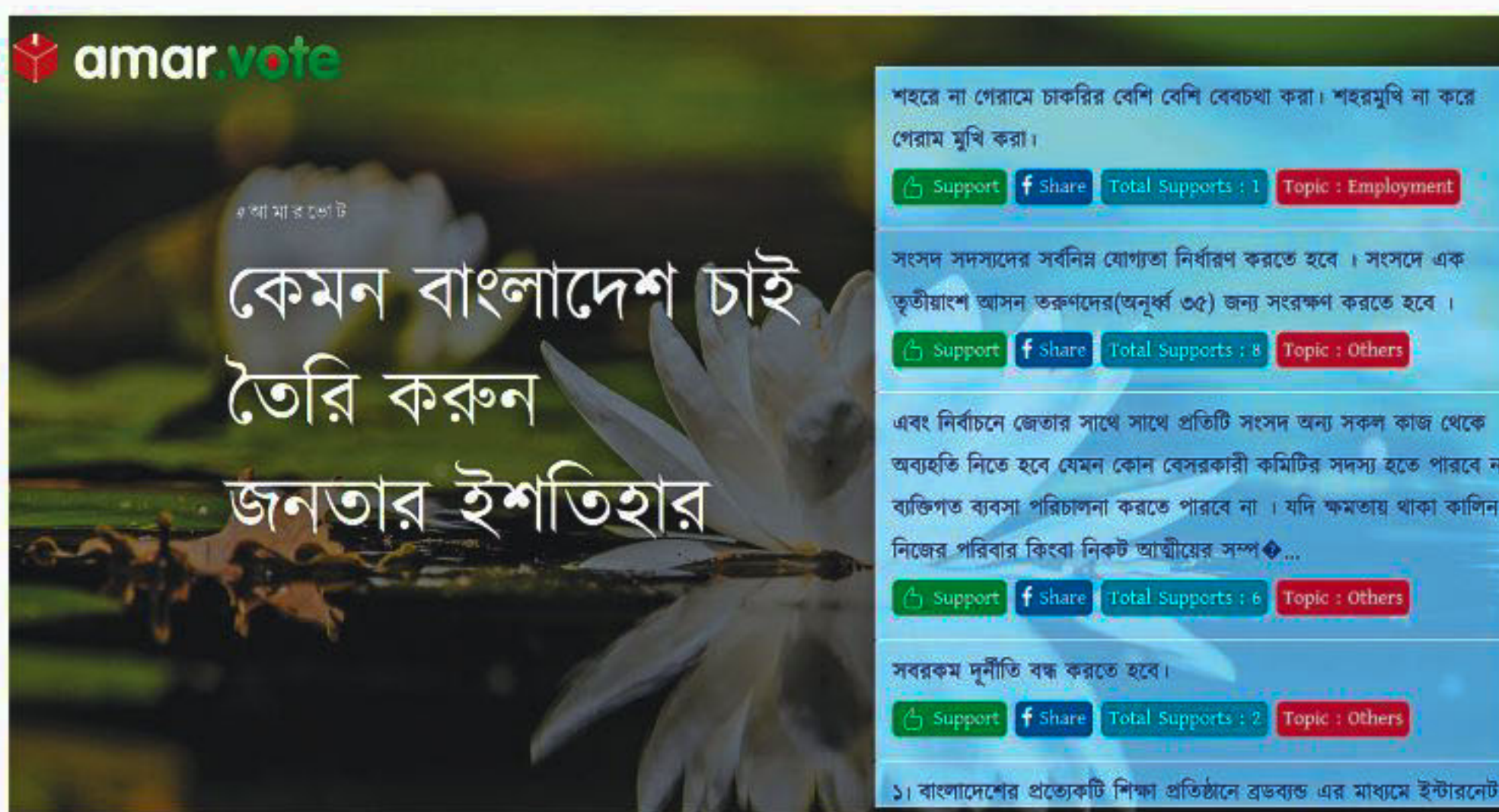

things like AI based cloud services and Google's translator earbuds, you are just a click away from trying the future now.

ASIF AYON

Election 2018 in a digital space

With Bangladesh Parliament Elections closing in, the local cyberspace has been heated up with 'Nirbachan' fever. And to go with the 'nirbachani' feel, we have compiled a list of three interesting election related services and apps that you might find interesting. Here they are:

AMAR.VOTE
Type: Website
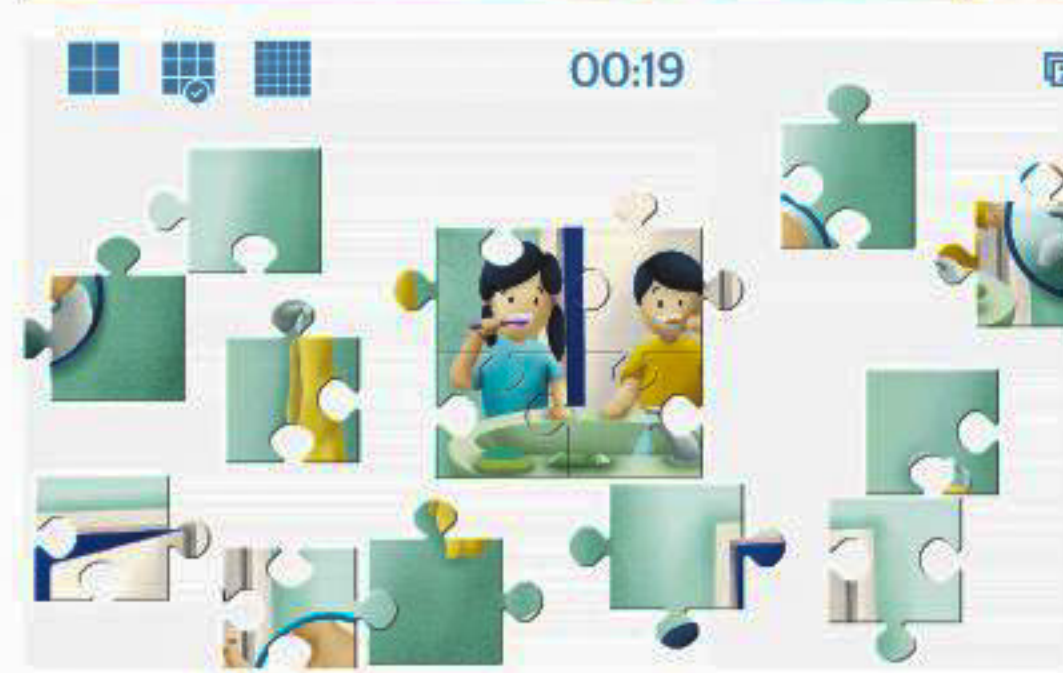**Developer:** Preneur Lab - Social Good Company

Amar.vote is an interesting piece of website where by logging in, you can create your own manifesto. According to Preneur Lab, the creator of the website, the sole ambition of this website is to encourage the new and young voters to vote and to allow them to express their expectations while also helping candidates to understand demands of the young voters.

JS POLL INTERACTIVE MAPS
Type: Website
Developer: The Daily Star

The website is an interactive website by The Daily Star which allows you to get up to speed with everything associated with the upcoming JS election in a single portal. From news to interactive maps to candidate's manifesto to constituency details, you can find everything in this single microsite. To visit the site go now: www.thedailystar.net/bangladesh-national-election-2018.

SANGSHAD NIRBACHAN
Type: App
Developer: Lotus Technologies BD

Songshad Nirbachan is a paid android app which can be considered as the holy grail of elections of Bangladesh. Don't be fooled by the unimpressive visuals as it contains the details for every Bangladesh election. The app sources information from a lot of journals and websites.

A digital storybook for the younger generation

When I was little, my mother used to read me children's books. These stories all had a moral or a general word of wisdom, some of which are still ingrained in me to this day. And while, I'm not alone in this regard since a lot of us grew up with meaningful bedtime stories, the younger generations of children are exposed to smartphones and YouTube from an early age, making bedtime songs, jingles and games their main lullabies.

But in an attempt to bridge the gap, Paperspell Studio released Bijoyer Pothe, a digital storybook app, on 10 December, 2018. Founder, Afroza Shirin Fahim said that the story is about a brother and a sister who upon hearing the tales of their Grandfather's struggles in the War of Liberation 1971, wonder how they too could do something for Bangladesh as the freedom fighters had done. Bijoyer Pothe includes 22 beautifully illustrated pages, both in English and Bangla, chronicling all of the acts of kindness, awareness and empathy the kids take part in throughout their day.

The storybook app is narrated and is available in both English and Bangla and it also comes with puzzle games which range in difficulty, and colouring for many sections of the story. The app is very easy on the eyes and the narration and literature is simple enough to get the message across to children of all ages.

Bijoyer Pothe is available on Google Play and will be available soon on the iOS App Store. Paperspell Studio is a team of young parents who want to focus on creating digital storybook apps so that parents such as them could teach their children some of the values they learnt from books and literature, but through mediums which the current generation of kids are familiar with. They are currently working on another storybook app titled Stories of Light which will focus on historic retellings of the Prophets of Islam.

ASIF AYON