

# Barun ICT Global News February 2022



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# 01

## Deciding Your New Year's Resolution (Feat. The Robot)

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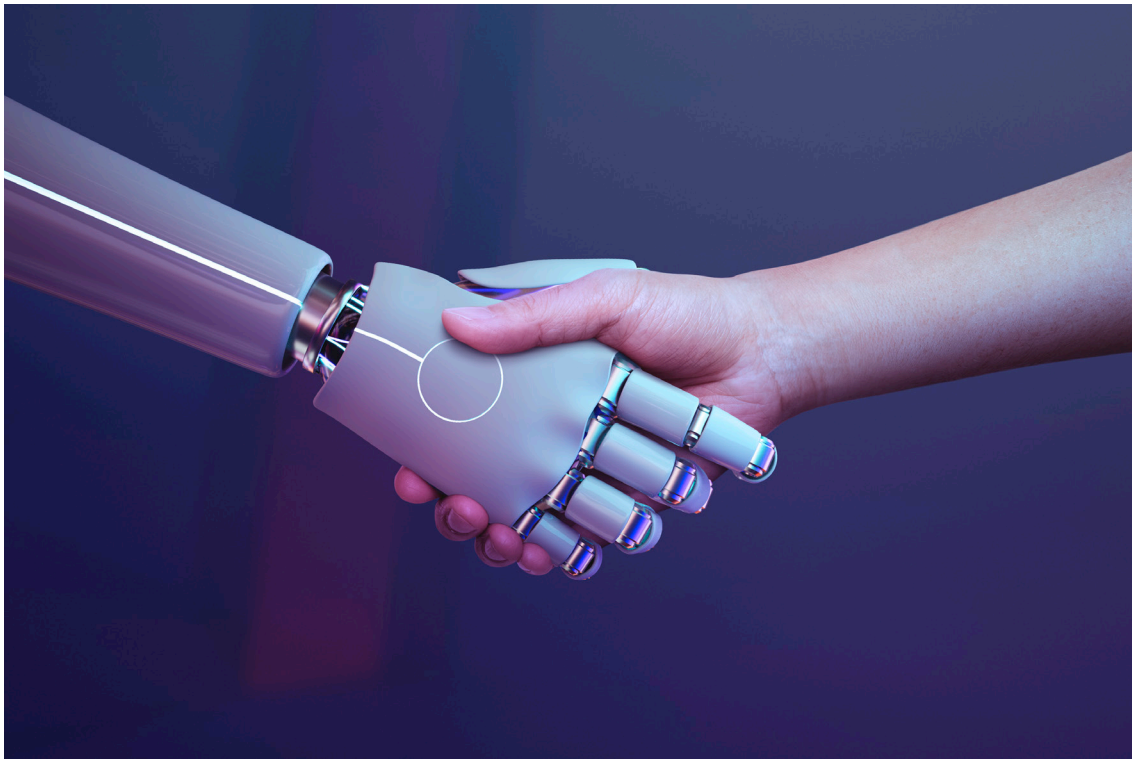
It can be expected that artificial intelligence and robots will continue their streak of development in the new year of 2022. The AI is being incorporated into various settings from big corporates to medium or small-sized firms to even individual houses. The speed of integrating AI in the workforce to increase profits and productivity has increased. It has become faster, more accurate, and even more effective [1]. Does this mean that they are able to replace some of our thoughts and innovation? Our utilization and dependence on robotics are amassing day by day, and even starting to cross the boundary of human judgment and decision-making. It is a universal tradition for people to draft or brainstorm their new year's resolutions every year no matter how difficult it is to stick to them. Maybe it was difficult because we made them ourselves. What if we get the help of AI and robots to draft the resolution?

The first way technology can help you abide by your new year's resolution is by having consistent alarms and reminders. With these tools, people can be guided through and be constantly reminded. One way virtual reality can be a factor is by special features such as exposure therapy to public speaking or interview skills. These tools that target specific goals enable people to feel more empowered. What's great is that the reminders are automatic and there is little room for mistakes. Technology can automate many tasks such as New Year's resolutions or any to-do assignments. With technology, it is harder to forget things we need to complete. It serves the function of a scoreboard that can encourage or motivate us more. A simple example is our cloud calendar goals such as Google Calendar. In the workplace and schools, sending each other calendar invites is already normalized. What's great is that these tools can be controlled. People have the autonomy to choose the frequency of reminders, write notes, and flag events that we judge to be especially important. With these cloud tools, we are always exposed to our new year's resolution and the omnipresence will stimulate us

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to follow through. Artificial intelligence in a way becomes our life coach and keeps us accountable. Instead of feeling down when we fail once, we can feel more uplifted by visually seeing AI tools that have monitored our long-term progress, suggestions of other ways to go about achieving goals or providing support in moving in the right direction [2].

We don't live in a world where robots decide our goals for us. Rather, we are able to utilize the functions of robots to help us achieve our goals. We are still the master of our fate and judgments. In 2022, there will be a rise of more tools in AI, virtual reality, or technology that can assist our decision-making so that we can stay more focused and driven in our path.



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# #KitaJagaKita: Public vs Government Response

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Malaysia experienced the worst flood after decades in December 2021 prompting more than 30,000 people to evacuate their homes and place themselves at the designated shelters located across the cities [1]. The unforeseen catastrophe shocked the country and sparked the debates between online communities on the government's response and competency in helping the evacuees and in calming the situation [2]. It is also overwhelmingly seen the public has responded to the situation much earlier and saved the lives of thousands of residents.

The power of digital accessibility allows Malaysians to get live updates through Twitter, Facebook, and WhatsApp on the current situation where the flood victims used these platforms asking for emergency rescues from being trapped in their homes [3]. Thankfully, the Good Samaritans gathered and utilized their money and resources to purchase boats, life jackets, foods, and all necessities; risking their own lives went through the flood areas and helped as many people as they could. While it was highly praised and became the symbol of unity among the public, it also lashes out the anger and frustration over the slow and dying response from the government addressing this matter as a national emergency [2].

To put it into perspective, the Prime Minister addressed the flood situation two days after it happened and admitted that the government was having chaotic management and miscommunication between the

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responsible agencies [4]. The anger did not put to rest as The National Disaster Management Agency (NADMA) spokesperson told the media they were only responsible to coordinate between agencies and have no authority to save the lives of the victims [5]. Tired of the government's back and forth with the situation, the public has taken this national emergency matter into their own hands.

The netizens started using the hashtag “#KitaJagaKita” which translated to “we take care of ourselves” as a symbol of protest towards the government [6]. The hashtag also has created plenty of crowd donations platforms where people can donate money or goods to be sent out to the victims. The amount of donation mounted more than millions of Ringgit Malaysia, proving the digital literacy give more opportunities for people to help in the way they can, even without being present in the affected areas. Significantly, the hashtag has also gathered the public nationwide to sign up as volunteers, helped with the evacuation process, food preparations, post-flood cleaning as well as medical and psychological aids. In times of difficulties, the public has shown that they are strong when united to solve any problems comes what may. Unfortunately, these crucial times also worriedly highlighted the public's displeased opinions toward the government.

Transparency becomes clearer and clearer when it comes to what matters and what matters not. The public has all the access to see themselves on how the government and politicians address national crises and hold the power to criticize when the issues are taken lightly. Public trust in a competent government is an ideal concept that Malaysians are longing for. Social media has become the backbone of deciding the country's future as they can easily say to the democratic government “one day you're in, and the next day, you're out!”.

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# Artists of the Next Generation: AIs

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Arts was once considered the one field reserved for humans. Paintings, songs, and literary works are at the core of human creativeness. If there is one thing that robots cannot replicate, it would be human creativeness. Looking at the turn of events nowadays, however, it seems that we may have underestimated the capacities of machines. A mind-blowing piece of technology introduced by Naver, a South Korean IT company, is one of the cutting-edge technologies that threaten our previous beliefs about what AIs can or cannot do.

Naver is running a huge online cartoons business in both Korea and overseas. Online cartoons of various themes are uploaded on a platform called Naver Webtoons, and it attracts over 160 million readers every month [1]. Last October, they released a beta version of an AI painting service. The AI painter uses deep-learning technology to automatically color the background or the sketch of a person. Naver provides the service for free, hoping to encourage those with good ideas to present their ideas as a webtoon to their platform, regardless of their drawing skills. The company is devoted to this project as it believes that the sustainability of its business depends on the “wide pool of amateur creators” [1]. Furthermore, it even has

plans to develop the algorithm to convert already existing novels into webtoons. This will provide readers with a far wider variety of contents to choose from.

If you think Naver’s ambitious plans seem far-fetched, you might want to reconsider that thought because, well, the technology already exists. Wombo, a Canadian startup, released an app called Dreams, which creates artwork from scratch. All one needs to do to get a personalized painting is to type in some words into the app. It barely takes a minute for it to draw a piece of painting that is “visually compelling” in a way that “matches your prompt in often surprisingly apposite ways” [2]. AI-based artwork technology can even be used for logo design. Various AI logo designers, such as Tailor Brands, Brandmark, and Designs.ai, can create logos that reflect company values and characteristics with only a few clicks [3].

Such breakthrough is not limited only to artwork. It’s also happening in music. Already, there are AI programs that allow users to either help with sampling to the extent that creates music from scratch. For example, there are “software such as Alysia and Orb Composer enables users to create songs based on styles or “feel” ” [4]. Furthermore, there have been efforts to predict the songs that would have been made by previous famous singers. A project by Sony’s CSL Lab is one of such efforts. The lab “fed a bunch of Lennon-McCartney songs” into an AI to create a song in the style of The Beatles [4].

Although it is amazing to see how far AIs have come, it is true that technology still has a long way to go. However, we never expected what exists now to be possible a few decades ago. Perhaps, AIs might master some of the traits that were perceived to be unique to humans. After all, machines have proved to be fast learners.

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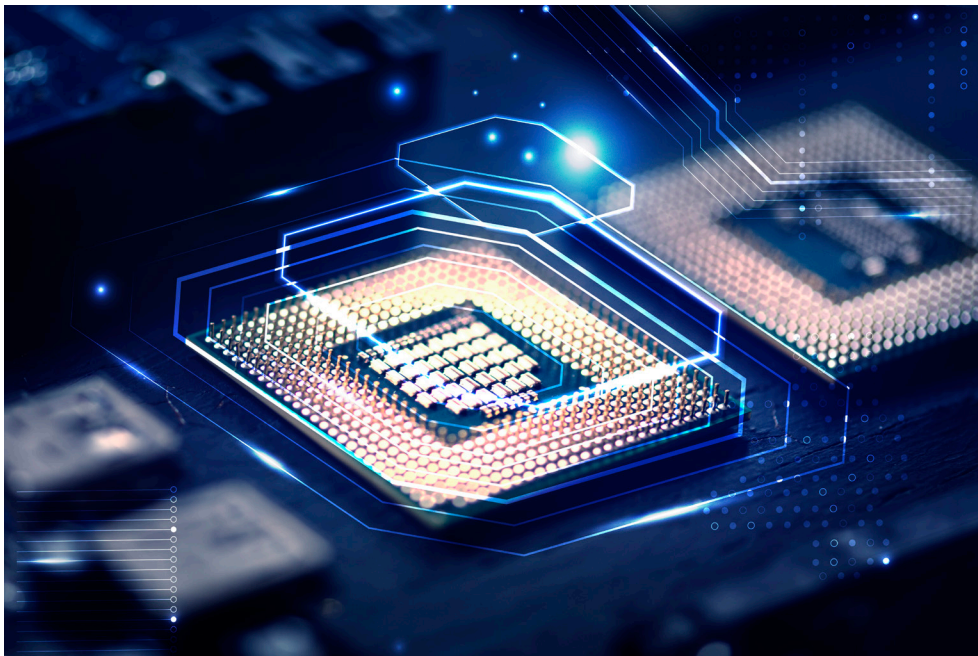
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# The Semiconductor Supply Chain Crisis

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Semiconductor chips are at the heart of all modern electronic devices. Electric vehicles would not be able to roll without high-performance semiconductors, mining cryptocurrency would be impossible, and the metaverse ecosystem could not have existed. Thus, semiconductors evolved to improve technologies and do wonders for our entertainment and convenience. Unsurprisingly, the demand for these chips is expanding at a rapid pace. Yet, there are not enough chips to keep up with it, and the world has unwillingly faced a semiconductor supply chain crisis. This crisis shook the global world as semiconductors serve as an essential component to so many industries, and it is predicted that the pandemic will continue to shake the global supply chain.

Rapid digitalization during the Covid 19 pandemic has led to a massive rise in demand for semiconductor chips. The automobile industry failed to predict the demand, causing a \$60 billion shortage of semiconductors for automobiles, which eventually affected other industries as well [1]. This incident sparked a sense of alert in the U.S., and the U.S. government decided to strengthen the global semiconductor supply chain. Although the U.S. is still the strongest country in semiconductor ‘design’, it still finds the need to strengthen



its “production” domestically, as semiconductor foundries are mostly concentrated in Asia. Accordingly, the U.S. Secretary of Commerce Gina Raimondo has once said that “it is crucial to strengthen our supply chains, and to do so we need to hear directly from impacted businesses when they are experiencing a COVID-related semiconductor supply chain disruption” [2].

Currently, the U.S. government is implementing a plan to reorganize the semiconductor supply chain. For example, Intel, a leading U.S. semiconductor company, is responding by deciding to strengthen its foundry business. Not only is Intel expanding its foundry in the U.S., but it plans to increase its production in Asia as well. However, its plan to increase production in China has been disapproved by the Biden administration over concerns about potential security concerns. Thus, as it can be seen from the incident, the U.S. movement to relieve the semiconductor supply chain deals with security issues as well. In fact, the U.S. Department of Commerce asked major global semiconductor manufacturers to voluntarily reveal data pertaining to their chip inventory, sales, orders, and customers’ information “to increase transparency to identify bottlenecks in the global supply chain and predict challenges amid a global semiconductor shortage” [3].

TSMC, also a semiconductor manufacturing company in Taiwan, is also striving to improve supply difficulties by expanding its U.S. and European factories. Yet recently, Santa Clara, California-based Intel Corp. Chief Executive Officer Pat Gelsinger has said that “it’s risky for the U.S. to rely too heavily on Asian chipmakers and that the American government should only subsidize domestic players with the new \$52 billion CHIPS Act” [4]. Intel is both a competitor and a customer for TSMC, so the two companies have a very subtle relationship. Meanwhile, Samsung in South Korea, another strong player in the semiconductor foundry, is also planning to build new U.S. foundries and strengthen its stance during the shortage crisis.

Semiconductors can be said to be the physical infrastructure of almost everything that belongs to digital civilization. Some expect that the shortage would ease up in 2022, but in such an unpredictable situation, industries worldwide are continuously living in anxiety.

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