Issue 2, 2021

drishtikone

Evangelical Perspectives on Mission and Ethics

Digital Technology

EFICOR

Working towards a just, responsible & compassionate society

“Be very careful, then, how you live—not as unwise but as wise, making the most of every opportunity, because the days are evil. Therefore do not be foolish, but understand what the Lord’s will is.”

Ephesians 5:15-17 (New International Version)

Drishtikone means perspective or viewpoint in Hindi. The magazine seeks to provide a space in which Christians can share their perspectives and points of view on wholistic mission in India.

Our Vision is that **Drishtikone** will motivate change in readers. The experiences of development practitioners, theologians, grassroot workers and others demonstrating God’s love in a practical way, will influence and encourage Christians to join the struggle for peace and justice in this country.

Drishtikone seeks to present a Biblical perspective on social issues and provide readers with information and models of engagement in wholistic concerns. It is a forum for evangelical reflection and dialogue on development issues in India.

Drishtikone is published three times a year by EFICOR to mobilise Christian reflection and action. Financial contributions from readers are welcome to support EFICOR in its efforts to influence the mind towards action.

Editor - Mr. Mangalapudi Ramesh Babu
Please forward any enquiries to:
Editorial Team,
308, Mahatta Tower,
54, B-Block, Community Centre,
Janakpuri, New Delhi - 110058, INDIA
Tele / Fax: +91-11-25516383/4/5
E-mail: hq@eficor.org
Web: www.eficor.org

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Registered office address:
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Letters to the Editor

Dear Editor,

Thank you for sending the issue on 'Inequality.' I find the articles very insightful and relevant to the current social contexts.

Sincerely,

Sukant
Bhubaneshwar, Odisha

Dear Editor,

Greetings in the name of our Lord and saviour Jesus Christ!

I am happy to receive Drishtikone magazine after quite some time. The issue of 'Inequality' is a very useful resource. I am keeping each issue of the magazine as my reference book.

Thank you.

Anil Kumar
Anugraha Charitable Trust
Gudalur, The Nilgiris
Tamil Nadu - 643212

Dear Editor,

The issue of Drishtikone magazine on 'Inequality' – Issue 1, 2021 highlighted the various facets of inequality existing in our society. The articles and Book review provide good resource material for my ministry. Thank you for sending me this useful resource.

M. Kharmujai
Lumbalang,
Shillong, Meghalaya

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The COVID-19 pandemic has been a bane for humanity but in one way it has been a catalyst - in accelerating digitalisation across the world. Going digital has transformed our way of life in unimaginable ways. We have had to adapt to remote working, online education, online shopping, and exploring new avenues in a digital ecosystem. It has involved a shift from our traditional way of doing things and resulted in a greater reliance on digital technology and artificial intelligence technology. In this current scenario, there are positive and negative impacts to these developments.

On a positive note, digital technology acts as an enabler and makes impossible tasks possible. Digital technology enables us to have access to a vast amount of information and knowledge. In the cover image we have depicted the Gurukul form of imparting knowledge and the tree as the symbol of learning. The tree serves as the epicenter of knowledge; likewise through digital technology, we could have access to information and knowledge.

On the negative side, as our reliance on digital technology increased, it causes huge inconvenience when it does not operate as expected. A slight malfunction or outage somewhere can leave a huge dent on communications and businesses. The sudden outage of social media Facebook's family of WhatsApp and Instagram on 4 October, 2021 has been described as one of the worst outages. It shows the fragility of the digital ecosystem, affecting 3.5 billion users of Facebook's networks and their businesses. A similar outage of Google or other such platforms could have similar if not worse impact on global commerce and communications. The emerging data sphere made possible by the emerging internet of things (IOT) technologies offers immense potential to serve the public good; however, it raises privacy and civil liberty concerns. Some of the articles in this issue of Drishtikone have highlighted these.

The issue, therefore, seeks to bring to the fore how digital technology has impacted us all, in particular it draws attention to the influence of social media, the impact of big tech companies, the threat our online activity poses to our safety, and it highlights the need for a more inclusive approach in a digitally empowered society.

Digital Technologies and its Growing Impact on Our Lives:

Patterns, Perceptions and Principles

Mrs. Nalini Parmar

Context

From the 'alarm clock' that wakes you up in the morning, to the curated news content on your mobile browser, to the personalised playlist on 'Spotify' or 'Netflix' or to the 'good morning' messages on WhatsApp, digital technology is all around us. It is becoming so ubiquitous day by day that it is difficult to think of a day without it.

Today, digital technologies have become so integrated into our lives that the boundaries between real and virtual have diminished. How many times do we pause in a day to gaze at the expression on another person's face, to understand him/her beyond the spoken words? Today, a major part of our perception of others is only through the texts that they send, or their likes/dislikes on social media. Technology has kept the lights on in the area of communication, even in this pandemic. But often it is too virtual or plastic.

Understanding the influence of these technologies on our personal lives is helpful to understanding the impact that it has on our own habits, lifestyles and our relationships. The impact of technology at a personal level cannot be ignored, and neither can the inevitable ramifications of technology on our society be ignored either.

Digital technologies revolve around 'data'. More than a decade ago, Clive Humby, the man that built Clubcard, the world's first supermarket loyalty scheme coined the metaphor "Data is the new oil" to explain how data is a resource that is useless if left 'unrefined.' Only once data is mined and analysed does it create (potentially extraordinary) value. When Humby presented his proposal for a loyalty scheme to the directors of Tesco in 1994, its chairman famously replied: "What scares me about this is that you know more about my customers after three months than I know after 30 years." The launch of Clubcard doubled Tesco's market share within a year to become UK's biggest supermarket chain.[1]

Digital technologies today have simplified the entire 'Data Lifecycle'. Today more and more quantifiable and non-quantifiable data can be captured. Big data technologies simplify the capture and processing of data, and this can very much happen even at the time of its creation. These technologies help in deriving insights from massive amount of data that is created every day. With cheaper storage and processing powers, captured data can be cleaned, shaped and run through mathematical models to get a better interpretation from data. This is made available to decision makers who not only can make useful policies for the good of the society but can also tweak the data to favour certain decisions and policies with mixed interests. And that's the power of this data.

So, what is Digital and how have Digital Technologies evolved over time? How are they being used today?

De-mystifying 'digital' and the technology around

"Digital is the representation of physical items or activities through binary code. When used as an adjective, it describes the dominant use of the latest digital technologies to improve organisational processes, improve interactions between people, organisations and things, or make new business models possible,"[2] defines Gartner.

Digital technology basically covers two processes – *Information and communication.* The binary computing system was proposed by the seventeenth-century German mathematician, *Gottfried Wilhelm Leibniz.* This inspired numerical codes such as American Standard Code for Information Interchange (ASCII) that described objects with digits.[3] With ASCII, information can be expressed in digits in binary code. Digital technologies today enable capture of information – be it text, speech, image or tabular data which can be stored in digital devices and transported. Digital networks also help in fast transmission of information through the internet.

In essence, digital technologies have transformed how people communicate, learn, and work. Emerging technologies that

[1]https://medium.wcom/@adeolaadesina/data-is-the-new-oil-2947ed8804f6

[2]https://www.gartner.com/en/information-technology/glossary/digital-2

[3]https://en.wikipedia.org/wiki/Binary_code

have accelerated the transformations are Internet of Things (IoT), Artificial Intelligence (AI), Block-Chain etc., and this has reached every human through digital devices such as smart phones and networks such as social media, e-commerce, etc.

To get an understanding of these technologies and their impact, it is good to understand *data and its lifecycle* from collection to insights and eventually to actions.

They in essence simplify the end-to-end Data Cycle which is:

- Data Capture
- Data Process and Analysis
- Data Insights.

i. Data Capture

Technologies in capturing data have evolved over the years. From punch card days to capturing human gestures, today technologies can seamlessly tap tabular, text, image, voice, video data and sensor data. One interesting technology in this is the NLP (Natural Language Processing) technology. This is a branch of AI that attempts to bridge the gap between human and computer communication by deciphering text data and making it machine-readable. Similarly, image and voice data can be read seamlessly. Chat bots and virtual assistants are used for customer interactions that effectively handle 80% most frequently asked routine questions and could reduce 30% on customer centre costs. Data can be captured not only from human interactions or experiences but also from machines. IoT technologies enable machine data to be captured through sensors, RFIDs, etc. IoT technologies help in remote monitoring of patients, operations of heavy machinery in refineries/ mining, home automations, etc.

Data capture can also be enabled by different services such as wi-fi service at the airport which will help service providers to understand location data, device data that is used to assist or guide travellers in large airports or to nudge them to drop by to have a coffee in the closest lounge inside the airport. Data is also collected when any app is downloaded, or when we register on a website or through cookies. Data can be further captured from transactions and interactions. *Digitalisation in essence aims to capture the physical world in all its complexities, subtleties and brittleness and converts them into a series of digits so that it is consumable by machines.*

ii. Data Process and Analysis

Data collected through sensors and various devices need to be cleaned and processed to make it usable. Analysis of terabytes of data can be done in the speed of data creation itself through Big Data Processing technologies. These technologies work on all varieties of data. Data Science is a field that helps in the analysis of large amounts of data to provide meaningful information which can be used to make decisions or solve problems. Data Science covers broad areas of study such as – Statistics, Data Mining, Machine Learning (ML), etc. Data Science can be used to analyse historic data, its patterns and peaks and this could be used to predict future patterns. A dynamic pricing engine set up on an airline booking site uses data science to understand the historic demands for seats and shoots up the price during peak demand or shoots it down to increase the seats sold. This price elasticity is brought by ML which is a field of AI. Today these technologies are used in a variety of applications to predict certain events or outcomes, to recommend a possible favourite product or to understand fraudulent patterns.

iii. Data Insights for Decisions

Processed data can be used for decisions by humans as well by machines. Insights could be in the form of pattern discovery – e.g. A particular age group living in a particular geographic area is inclined to buy a certain sports product. This could be used to give recommendations. Insights from data can be predictive - given the historical patterns of use, what would be the future demand of a product? Insights can be used to make any decisions on the job. A call centre agent could have an intelligent conversation knowing that the person on the other side is a highly valued customer.

Technologies such as Business Intelligence and Advanced Visualisation present processed data in an intuitive fashion to make smarter decisions.

Insights from data can be directly used by machines as well. This is made possible by the various dimensions or contexts of data that can be fed into a machine today.

When a traveller waiting in the airport due to a flight delay texts to ask for the next suitable flight schedule, the machine (a travel bot) understands the text, extracts his origin/ destination, preferred time etc. to fetch the most suitable flight. While checking, if the bot is able to identify that this person is a frequent traveler, it could offer a seat based on the traveller's preference (past travels).

This is now easily possible today with AI and ML. If we want the bot to understand the mood of the traveller by the tone of the text he typed – this is now also possible with certain degree of accuracy (not 100%). Added to this, if the traveller's video data can be leveraged (with his consent) his gestures could improve the accuracy of sentiment derivation. Thus, multiple modes of data (text + voice + video) can be used to serve a

customer in a never before way.

Digital: Patterns of Use

Digital technologies are used for a variety of purposes. There are some good uses of data and digital technologies as well as potential misuses. Digital technology has not only simplified our lifestyle and experiences but it has also offered sophisticated solutions to tackle some tough problems.

Simplification

The prime advantage of digital technologies is that it has simplified our lifestyle a lot. In this pandemic era, we see them playing at forefront with the kind of video, audio and tele-conference technologies which we use seamlessly. It has made our living and buying simple, and we are seemingly running a smooth life, everything being served at our clicks.

Some of the super cool simplification has happened in the area of Tracking. From tracking of one's sleep or movements to tracking of cars to tracking of satellites or remote locations is possible through the internet of things. Tracking could be used to improve lifestyle, simplify and make driving efficient. Tracking and monitoring could be used for safety, surveillance (can preserve ecologies and forests) as well as could be misused for vested interests.

Automation is another much needed simplification. Robotic Process Automation (RPA) is a technology that allows for configuration of computer software or a bot/robot to replicate human actions and tasks, especially those that are repetitive in nature, only done substantially better. Repetitive tasks during month-end processes such as account reconciliation – journal entry to final reporting or document scans or web scraps can be automated through bots.

Recommendation is another cool simplification that we have gotten used to. Recommendations on a product or a book or a series are something we live with every day. It's like the kitchen salt, its presence is not felt but only its absence.

Simplification brings its own joy but these could take a lot more data than required. It's a thin line between privileges and privacy. How far would we want to go to trade-off one for another?

Government protection laws for Data privacy are established and they are geographic specific – the GDPR (General Data Protection Regulation) in Europe impacts the collection, storage and use of personally identifiable information (PII). The individual here has the total control of their data, and their consent is necessary to use this data. The data processors or controllers need to have sufficient technology and process to implement the data protection measures.[4]

In December 2019, the government of India introduced the Personal Data Protection Bill, 2019, in Parliament, which would create the first cross-sectoral legal framework for data protection in India. While there's a question on coverage of it due to proper legal framework, it's imperative to understand that these laws still allow data sharing between entities (e.g. Facebook and WhatsApp) and there are growing concerns on its implications.[5]

It's essential to understand that as individuals we need to be responsible for the data we share or give.

Sophistication

Technology today is solving some sophisticated situations and problems.

It is used in the field of medical sciences and health care for the early diagnosis and detection of diseases. This has also been used in deciphering genomes including COVID-19 and to be able to detect and manufacture vaccines as well. Smart energy solutions, powered by IoT and AI has helped large tech giants such as Google to predict when its data centers' will get too hot so that cooling systems could be activated. This has helped in saving 40% in energy costs.[6] There are other areas such as sustainability, wild-life conservation etc., where these technologies are used for good and for the benefit of society.

In all of the many solutions with AI for simplification or automation or recommendation, the usage of AI is still in a narrow sense. They solve a task at hand. All of these solutions are applications of Narrow AI. Broader AI or Artificial General Intelligence (AGI) is a branch of AI that aims to mimic human mind. This continues to be the inspiration of sci-fi movies as of now and realisation of this is far-fetched. The book by John C. Lennox (an Oxford Scientist, Philosopher and Professor) 2084: Artificial Intelligence and the Future of Humanity[7] explores the pros and cons, the facts and fictions around AI and offers answers that we long to understand in the light of Genesis. John takes the foundational truths of Genesis and explains how God in creation linked intelligence and consciousness because He himself is like that. Major portion of the automations are devoid of consciousness and serve the purpose of humans in narrow tasks alone.

So, while, there is a general magic bullet feel towards AI,

[4] https://en.wikipedia.org/wiki/General_Data_Protection_Regulation
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realisable benefits are achieved in the narrow sense as yet – focused for certain type of tasks. And even these they need humans to help them with right training data and optimising them continuously in an ever-changing external world.

Digital: Perception and Principles

As we understand the terrain of these technologies and its uses, by and large, there could be three definite implications that we need to consciously work upon:

Being Diligent

The impact of digital technologies at personal level, in our relationships and in our communities is inevitable. The entry of these to simplify our lifestyle can slowly become a crutch without which we cannot imagine life. At the core, they shape our habits and slowly our character. Initially we used to decide first, the product we needed to buy or the book we wanted to read. Then we searched for it and bought it. This has slowly changed now to mere looking at recommendations for the next buy or read or watch. We've transferred our decision-making free willpower to a recommendation engine that slowly dictates what we eat or buy or read or watch. This not only dulls creative thinking, but we've started to trade our personalities and preferences unknowingly to machines. This in turn shapes our world views, our perceptions and eventually actions.

I often remind myself to this beautiful scripture *"Do not conform to the pattern of this world but be transformed by the renewing of your mind. Then you will be able to test and approve what God's will is - his good, pleasing and perfect will"* Romans 12:2. The pattern of this world gets so much imprinted on our minds and habits, dictating our actions and reactions. How much should we be careful to pattern it according to His word. We all need a periodic digital detox and we need to consciously allow God's word to keep us grounded.

Being Decisive

The impact of these technologies at a community level or the society cannot be undermined. We need to wisely decide the content we subscribe to, like or share. Verifying the source of information is a simple step we could take before we like or share. Cognizant of the data that we could potentially share, we need to decide carefully before any app/game download. It's worthwhile to get a paid reliable news service or any paid app than relying on a free service where we trade our data freely and often believe the junk that gets posted. We often become unintentional links to spreading them. Someone rightly said, *"If anything is free, you are the product".*

We also need to have content reviewers for official blogs or websites. This is required to review and comply to privacy laws of the nation or state. Moreover, this is also crucial because public content can be scraped and mined (web scraping, data scraping) and can be used for any purpose.[8]

"Look carefully then how you walk, not as unwise but as wise, making the best use of the time, because the days are evil. Therefore, do not be foolish, but understand what the will of the Lord is." Ephesians 5:15-17

Being Determined

Adopting technology to enhance our efficiency and outcome is a good thing. There are a lot of nice digital tools that could simplify our work and make it easy for us to collaborate and work. [Example: mural[9], ideaboardz[10] - for collaboration]. Let's be determined to enhance our digital skills with a purpose to glorify our Creator. From art (music, poetry) to science, digital technologies are tools to be leveraged in any field. They could never replace the immense human creativity or the intrinsic value a human mind could bring about, but they are simple tools to augment our capabilities and efficiencies.

It is good to understand the nuances of this, to be able to use it in our daily lives, for our work and ministry in the right way. Harnessing the best of these technologies for the betterment of society is a good thing. (Exodus 35:10 *All who are skilled among you are to come and make everything the Lord has commanded).*

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(Mrs. Nalini Parmar works as Senior Consultant in a leading IT Consulting and Services Company. She can be reached at jonathan.nalini@gmail.com)

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Impact of Digital Technologies on Humanity:
The Good, the Bad and the Ugly

Mr. Vanlalfela Chawngthu (Fela)

In the cover story, Mrs. Nalini Parmar gives an apt overview of the concept of data - the life blood of digital technologies and the stages of data lifecycle. She also expresses the implications of digital technologies in three comprehensible points. These are excellent perspectives from digital system point of view or from a technology vantage point.

The other side of this digital system view, which I wish to expound upon, is the humanity vantage point. This complementary perspective will focus on the end impact that digital technology has upon people and communities. While the empowerment that digital technology brings to humanity cannot be underestimated; the negative impact it brings should not be understated. Let's look at the Good, the Bad and the Ugly!

THE GOOD: Endless possibilities for humanity

Digital technology has democratised two fundamental things for humanity - media and community. As recent as 30 years ago, much of the media we consumed were controlled by a few big media houses. Forming a community too, was restricted by geographical factors. But with digital technology, a person is able to exercise their freedom of speech like never before across countless media platforms, and also form or join any sort of community with the click of a mouse. The opportunity this empowerment has created is limitless and unbounded. Let us consider one example close to our hearts – how is digital technologies empowering Christian communities? We, Christians, can now dream of armies of Jesus' disciples interacting with the world 24/7 on platforms or media of their choice. How about Christian online communities around the world strengthening each other by the thousands, unbounded by space and time zones? Or the idea of self-paced online pulpits, on-demand Bible study groups and always-on worship places! Shall we not dare to dream of an AI powered Bible Study bot?

THE BAD: We are all addicts!

The deepest design intent of consumer technology is to make it addictive for users. This is true for social media apps to e-commerce platforms to news portals. They employ sophisticated neurological thinking in the design process. Consider this - your brain releases a 'happy' chemical called dopamine whenever someone likes or comments on your social media post, or when your order from Amazon is delivered. Neurologists say that both digital addiction and heroin addiction are powered by dopamine releases. This is why we tend to reach for our mobile phones as soon as we open our eyes from sleep. This is the same reason why we feel incomplete without our phone in sight. If this wasn't bad enough already, our favourite apps and portals have built-in data collection and recommendation engines. What does that mean? Your favourite digital channel collects your information and your digital behaviour in real-time. The platform then uses these information to recommend things to you in real-time that matches your preference, taking you into deeper and deeper levels of addiction! You can't help but shudder at the thought of being addicted to bad, violent or sinful content.

I am personally convinced that digital fasting will become one of the most important spiritual disciplines of the 21st century. And I hope I am not the only one.

THE UGLY: Explosion of fake news

A Twitter-MIT study[1] suggests that fake news travels 6 times faster and cascades 20 times deeper than real news on social media! According to Journolink[2], Facebook users alone produce 200 million fake news in a peak month. In fact, Oxford Dictionary's Word of the Year in 2016 was 'post-truth.' Digital technology has brought us to a world where emotional appeal and shock-value triumphs over truth. Researchers have concluded that fake news, especially the malicious ones - misinformation and disinformation - see the highest level of explosion during elections. Case in point is the 2016 US Presidential Election, which witnessed the explosion of fake news not only from within the USA but also from places like Russia. This is downright ugly. The very bedrock of our most powerful governments are lies. There are numerous well-funded outfits spreading conspiracy theories to push political propaganda and to displace establishments. Not ugly enough? You'll be surprised to know that some of these are linked to Christian organisations supporting political parties!!

Should we not, then, bow down our heads in prayers?

(Mr. Vanlalfela Chawngthu (Fela) has 16+ years of experience in the Technology Industry and has worked with global companies such as Oracle, HCL Technologies and Sapient. He currently serves as a Director, Customer Success & Services Sales in Adobe Systems. He can be reached at mafela@gmail.com)

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Living in the Digital World

Mrs. Beulah Princess

I remember peeping into my Dad's art room during my childhood. Inside his room he had many of his paintings, paints and other materials that were off limits for us kids. One of his paintings was of Apostle Paul, with all the modes of travel and other modern inventions around him. Aeroplanes, jet trains, telephone, printing press, electricity as well as an imaginary comment by Apostle Paul saying, 'Had I all these facilities……,' leaving it to the imagination of the reader.

Scrolls, ships or shipwrecks, Paul made the most of whatever we had. 30 years later, if my dad were to redraw Paul again, he would need to draw on Cloud, IoT (Internet of Things), AI (Artificial Intelligence) and countless other fancy gadgets! No doubt it would include Christian content. There are now countless podcasts, sermons, videos streamed online, blogs, YouTube channels, church services, prophetical messages, evangelists, children ministry, counselling over Zoom platform, etc over the internet. If you just take a verse or even a part of it and Google it, you get millions of hits from countless websites!

Mrs. Nalini in the cover story article has mentioned how digital technologies have transformed how people communicate, learn and work. There are quite a few surprising things which left me amazed at this tech-savvy world. Someone said that his school going children have their own YouTube Channels with 2000+ subscribers. My jaw dropped. I do not know where we are heading! We definitely have a digital overload; look for a song, you get a million hits. Gone are the days when we said everyone has Gmail, now everyone obviously has a YouTube Channel! I talked to another friend who was a professional digital content maker, and you know, what the problem was? There are now easy-to-use softwares and apps that can make anyone a photographer, anyone a video editor, anyone a website or graphic designer, anyone an animator, that people do not want a professional one! The funny part is there are Christians who do request help, but expect it for free, as it is God's work. Everything has become simple, cheap and meaningless like the Preacher long ago said.

On the other side, there are now modern avenues for evil things to breed. The statistics on the porn industry are alarming. There are 26 crore websites, and the viewers are 28285 per second! There are various new avenues for adultery with rise in pornography. With smart phones in everyone's hand, and unlimited high speed internet, you are free to do anything. Social Media Addictions. Just scrolling through can kill one's time.

Like the flip side of the coin, I have seen so many friends turn superheroes, trying to help their neighbours, Whatsapp groups formed completely out of strangers, pooling in money, be it to get rations for a family or find blood, medicine, or bed for a COVID patient. Digital is IN.

The satellites help bring people closer or does it? Gone are the days when you wait for the News on Doordarshan. Now thanks to the technology we can have news anytime we want. Live coverage of news 24/7. Be it gun shots, earthquakes, murders, or wars. The cries, the death, the pain all LIVE - so visual and audible, have hardened our hearts. All the news, stories and sickness can be overwhelming and it becomes easier to skip channels and go on as though nothing has happened rather than face the reality. It has resulted in a kind of plastic life as mentioned by Mrs. Nalini. It is so easy to get conformed to the patterns of the world, so easy to get complacent. The rat race can wear you out so much that you long for some cozy spot, where you can view Nineveh from a distance. A drop does make a difference! Reminds me of another painting of my dad - A man is fishing in a bucket of water. He wonders why he doesn't get any prized fish! This visual depicts broken families, broken churches and broken believers.

But we are made to compete with horses. To run with horses is what God says to Jeremiah.

Whatever technology is evolving around us, there are some things that should not change. Time with God. Time spent getting to know his heart more. Without being in the vine, we don't bear any fruit. Apart from him, we can do nothing. In the hustle-bustle, if we don't see him, we can be sure that we will be thrown away and wither; to be thrown into the fire and burned.

Whatever technology is evolving around us, there are some things that will still remain. Poverty, malnutrition, wars, hatred, eternal death and so on, and still new things are added every day.

So the need of the hour is to stop every day, fall at His feet and ask Him to help. To remain in Him. To see with His eyes, and not to settle for a cozy spot or mediocrity. To ask for wisdom to use digital technology wisely as he wants us. We don't want to end up like King Solomon, do we? So let's push ourselves from the cozy spot, from mediocrity and run with horses!

May this visual be imprinted on your heart as it is in mine.

(Mrs. Beulah Princess works with the Infosys in Chennai. She can be reached at mailbeul@gmail.com)

Biblical Reflection on Digital Technology

Dr. G. Edwin Prem Kumar

Impact of Digital Technology

Digital technologies have permeated each and every area of our lives, densely interwoven and intertwined interfering in our personal, professional and family lives. Digital technology has put power in our fingertips. The advantages of digital technology are indeed innumerous, that when properly tapped and utilised, they can have a revolutionary impact on any organisation or ministry. The variety of Bible Study guides, commentaries and dictionaries have made studying the Bible a very meaningful, life-changing and vibrant exercise. Online dissemination of the Word of God through YouTube, podcasts etc. have helped in reaching the unreached to a large extent. Staying connected with fellow members of the church for prayer support, counselling and word of encouragement through video calls, conference calls etc. has strengthened Christian fellowship and has served as a lifeline for many to stay strong and not to give up. Online praise and worship and online editions of books, tracts etc. are great. However, the line of demarcation of wise and unwise use of digital media is rather very bleak and thin.

As Paul puts it in 1 Corinthians 6:12 (Amp), "*Everything is permissible for me, but not all things are beneficial. Everything is permissible for me, but I will not be enslaved by anything [and brought under its power, allowing it to control me]*."

Any technology comes up with its own pros and cons. A believer needs to use his/her God-given wisdom to handle this technology with care. Increased hours on electronic gadgets and dependence on it have led to the erosion of social, moral and godly values both in personal and public lives. These digital technologies have made sure that we stay connected to the world and people around us, but has unfortunately severed our connection with our Creator. Improper and unwise use of digital media, results in unprecedented intake of worldly and ungodly trash, which has caused inevitable outbreaks of ungodliness and worldliness in the lives of many Christians.

"*Catch the foxes for us,*
The little foxes that spoil and ruin the vineyards [of love],
While our vineyards are in blossom." Song of Solomon 2:15 (AMP)

We need to identify and catch the little foxes, small negligible issues that may tend to stand out and prove to be a menace for our spiritual growth.

Importance of being a responsible Christian

"…the wise heart will know the proper time and procedure. For there is a proper time and procedure for every matter." Ecclesiastes 8: 5,6 (NIV)

Rampant use of digital technology, has stifled our creativity and has drastically transformed us into receivers rather than being givers. Digital connects have made the virtual environment look so real, impressive and engrossing that the value of human connections is just trampled over. May God open our eyes to the subtle schemes of Satan so that we may live vigilant lives and never be fooled by his tactics.

Here are seven simple Do's and Don'ts for a Christian to follow while handling digital technologies.

- ✓ **Don't be selfish**

Addiction to selfies and promotion of useless and selfish propaganda has become the order of the day. Frequent peeps into the number of views, likes, comments, followers etc. for our latest post invariably feed our pride and pave way for other related sins. As Paul writes, we need to be clothed with selfless humility.

"Do nothing from selfishness or empty conceit [through factional motives, or strife], but with [an attitude of] humility [being neither arrogant nor self-righteous], regard others as more important than yourselves." Philippians 2:3

- ✓ **Don't be oversensitive**

"Do not pay attention to every word people say…" Ecclesiastes 7:21 (NIV)

We should never let unwarranted comments, remarks and criticisms perturb us in any way. We need to seek God's ways and His wisdom in dealing with these.

When we become oversensitive and start brooding over such unnecessary things, we end up not being available for the Master's use. We become clogged channels failing to be a blessing to those around us.

- ✓ **Don't be silly**

"Dead flies make the oil of the perfumer give off a foul odor; so, a little foolishness [in one who is esteemed] outweighs wisdom and honor." Ecclesiastes 10:1 (AMP)

In the digital platform, be careful of your digital footprints. A small thoughtless act of foolishness can ruin your reputation and fail to bring glory to God. Avoid interacting with strangers. Never let down your guards. A single off-guarded moment may lead you fall a prey to Satan's schemes and tactics. Be wise and circumspect.

- ✓ **Be Sensible**

A Christian is called to be the salt and light of the earth. We need to be wise, sensible, prudent in the choice of our words, our responses and our interactions in the digital platform.

"Sensible people will see trouble coming and avoid it, but an unthinking person will walk right into it and regret it later." Proverbs 22: 3

We should never be carried out by the false myth of anonymity in the digital platform. Every interaction, every dot and comma that we leave behind become part of our digital footprint and is susceptible of any kind of legal actions.

- ✓ **Be Scriptural**

"Counsel in the heart of man is like deep water,
But a man of understanding will draw it out."
Proverbs 20:5 (NKJV)

The words we use in the digital platform should be an evidence of the eternal treasures and living hope that the Lord has given us. We should be able to draw out of these riches and share it with everyone. When our minds are saturated with God's words, our conversation and our digital footprint will undoubtedly bear its mark.

- ✓ **Be Systematic and prioritised**

Time is one of the greatest gifts we have received from our Creator. We need to take adequate steps to use this invaluable resource for His glory. We need to carefully consider the way we spend every moment of the day. Time spent imprudently and indiscreetly on social media dishonours God and will rob us of the abundant life which the Lord has kept in store for us. "So be careful how you act; these are difficult days. Don't be fools; be wise: make the most of every opportunity you have for doing good. Don't act thoughtlessly, but try to find out and do whatever the Lord wants you to." Ephesians 5:5-17 (TLB)

- ✓ **Be Separated**

"Don't copy the behaviour and customs of this world, but be a new and different person with a fresh newness in all you do and think. Then you will learn from your own experience how his ways will really satisfy you." Romans 12:2 (TLB)

As children of our God, we always need to remember that though we are in the world, we are never of the world. We should never let the world squeeze us in its mould. We need to have our boundaries clearly defined and refrain from indulging in ungodly chats, activities, tweets, conversations and recreations. Paul writes to Titus, saying it is God's grace that teaches us to say 'NO'.

"It teaches us to reject ungodliness and worldly (immoral) desires, and to live sensible, upright, and godly lives [lives with a purpose that reflect spiritual maturity] in this present age." Titus 2: 12

"Holiness Unto the Lord" – a sanctified, separated life should be our only aim.

In this era of big data, with strict and stringent rules for data secrecy and privacy, we need to obey and respect each and every law. St. Paul carefully cautions us saying,

"Let every soul be subject to the governing authorities. For there is no authority except from God, and the authorities that exist are appointed by God." Romans 13: 1

We always need to remember that, "For the ways of man are before the eyes of the Lord, And He ponders all his paths." Proverbs 5:21. We should live with the constant realisation that we are living under God's watchful eyes always. Before we use our electronic gadgets, during our chats and media time, as we scroll up and down, we need to realise that we are accountable to God. We need to follow the footsteps of David in making the commitment, "I will walk in my house in integrity with a blameless heart. I will set no worthless or wicked thing before my eyes." Psalm 101: 2,3.

Invasion of social media

"Social media is a brew of emotionally stimulating drugs we mix for ourselves" says Tony Reinke [1]. Social media tends to manipulate and skew our opinions and choices on

anything and everything. We are barraged with both wanted and unwanted information. They constantly interfere with our thought-patterns, our likings, our opinions, our viewpoints and our values. "The short-term, dopamine-driven feedback loops" - the hearts, the likes, the thumbs up, the comments etc. are poised to corrode the individual's perceived self-esteem and often ends up to be brittle and fake [1]. They end up becoming self-prescribed drugs used to regulate our emotional lives and mood swings.

Hezekiah was a King who pleased the Lord in everything that he did, cleansing and consecrating the Temple, restoring worship, reinstating the sacrifices, celebrating Passover etc. When Sennacherib invaded Judah and surrounded Jerusalem, Hezekiah handled it with great wisdom. Let us try to understand the three important strategies which Hezekiah used to overcome his enemies. Even as we face the constant threat of invasion of social media into our personal and family lives, it would be worthwhile to understand these strategies followed by King Hezekiah.

- ✓ **Strategy of shutting down**

"[4] So many people came together, and **they stopped up all the springs and the brook which flowed** [underground] through the region, saying, "Why should the kings of Assyria come and find an abundance of water?" Also Hezekiah **resolutely set to work and rebuilt all the wall** that had been broken down, and erected towers on it, and he built another wall outside and strengthened the Millo (fortification) in the City of David, and made a great number of weapons and shields." 2 Chronicles 32: 4-5 (AMP)

It's time to shut down! It's time to rebuild and fortify your walls! It's time to say NO! Are you feeding your selfish desires and sinful pleasures? STOP devil from gaining a foothold else he will capture the Throne! Seal the cracks and seize the little foxes. May our lives be as Solomon puts it:

"A garden enclosed is my sister, my [promised] bride

A rock garden locked, a spring sealed up." Song of Solomon 4: 12 (AMP)

Go on a digital break, a 'digital Sabbath' for a day or at least few hours of a day. Let your mind and soul rejuvenate and be refreshed on things that are more real and tangible.

- ✓ **Strategy of silence**

"But the people kept silent and did not answer him, for the king had commanded, "Do not answer him." 2 Kings 18:36

"We use the noise of media in our lives to drown out the things we'd rather not face" [1]. Solitude exposes us and so invariably makes us uncomfortable. Though silence brings our scars, anxieties and worries to the forefront, it is also a golden moment when we can listen to our Saviour's sweet voice. Silence prepares your heart to see God exalted in your lives above all the things of this world (Ps. 46: 10). Silence opens the eyes of your heart to see the things that really matters. Silence equips you to entrust yourself to the wisdom and plan of God (1 Peter 2: 23). Silence prepares you to expect greater things from God (Joshua 6:10). As we look full on His face, in a silent gaze, the mask of social media in the form of tweets, viral news, alerts, newsfeed etc. gets torn off, so that things of this earth, the attractions and distractions will grow strangely dim in the light of His glorious face!

- ✓ **Strategy of supplication**

"Then Hezekiah took the letter from the hand of the messengers and read it, and he went up to the house of the Lord and spread it out before the Lord." - Isaiah 37: 14

While a multitude of people keep falling prey to the social media and other digital technologies, may we lift our hearts in fervent supplication for these souls to be delivered. Praying for others is a definite way of finding respite and solutions for our own personal maladies.

In this busy world, amidst all this noise and din, when we are bombarded with a lot of technologies, gadgets, media, trends etc., may the Lord be our Pace-setter and grant us the grace to live a wise and balanced life.

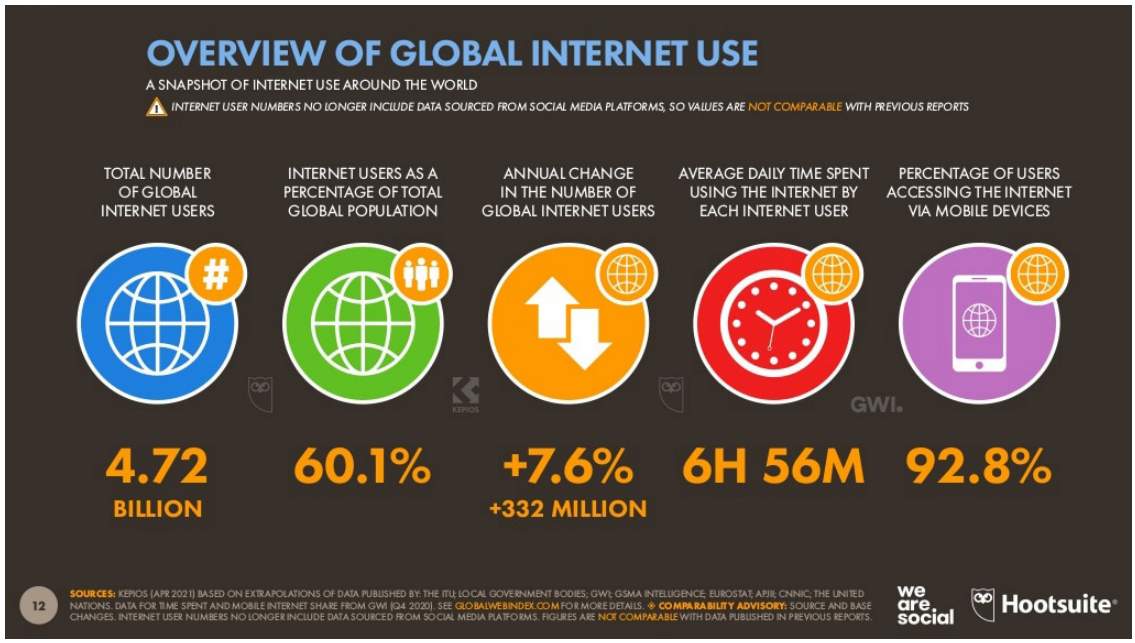
"The man who fears God will avoid all extremes." Ecclesiastes 7: 18 (NIV)

Reference:

[1] Tony Reinke, "Why we should escape social media (and why we don't)" dated 20th Jan. 2018 https://www.desiringgod.org/articles/why-we-should-escape-social-media

(Dr. G. Edwin Prem Kumar is a Professor of Information Technology in an Engineering College at Coimbatore, Tamil Nadu, India. He can be reached at edwinpremkumar@gmail.com)

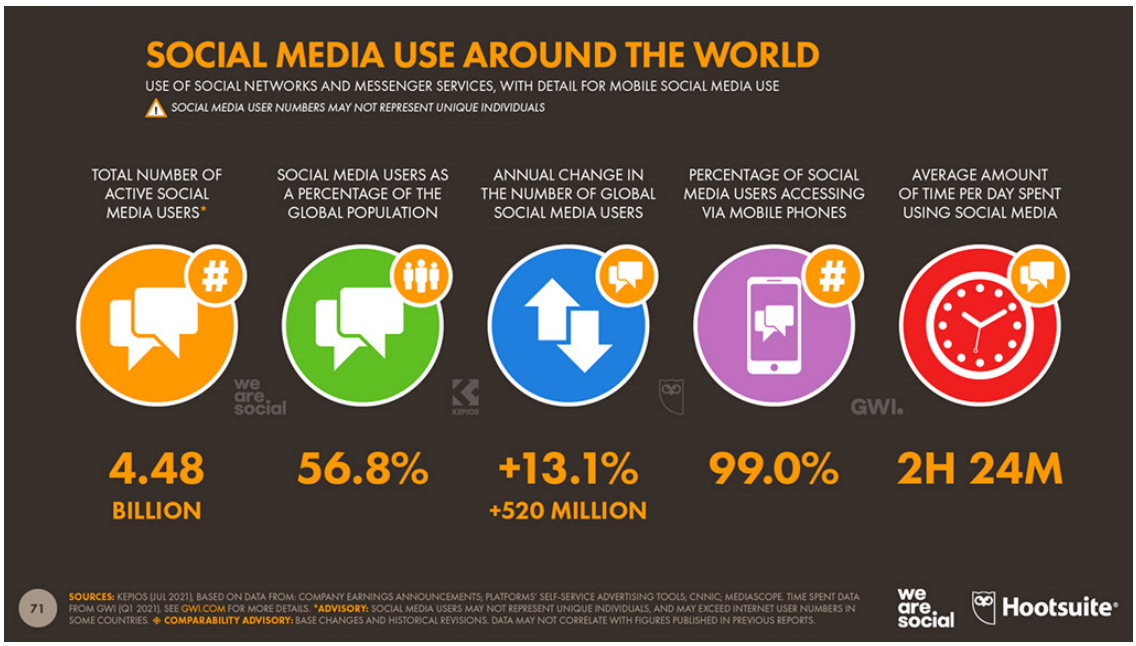
FACTS



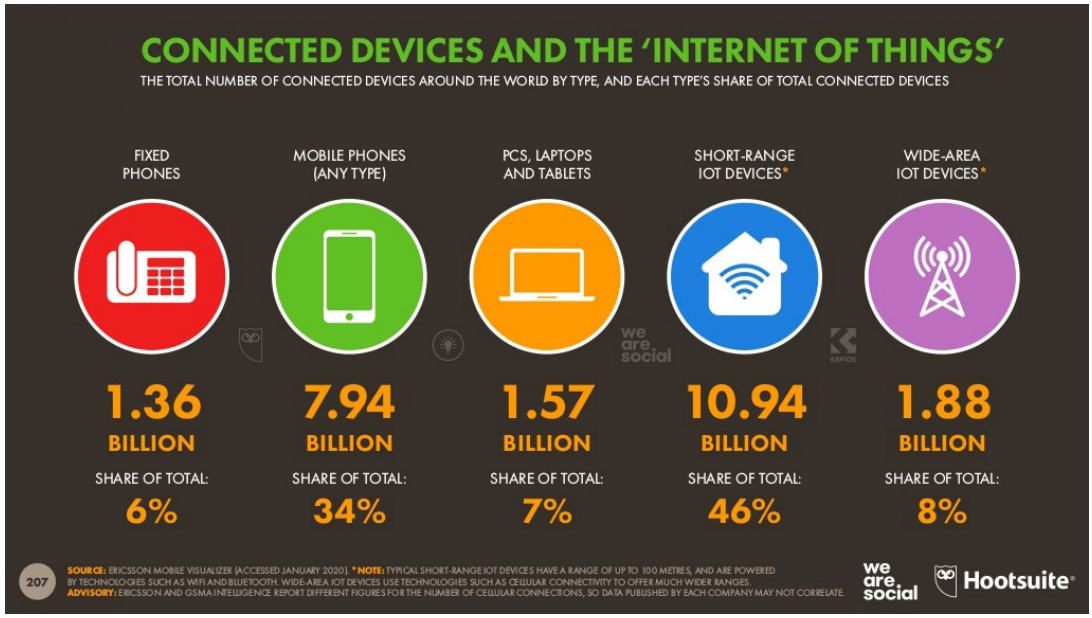
6 in 10 people around the world now use the internet.

More than 30 million people started using the internet in the past 1 year, taking the total number of global internet users to 4.72 billion by April 2021. Global internet users now spends an average of almost 7 hours per day online, which means that humanity will spend a total of 12 trillion hours using the internet in 2021 alone!

Global mobile users have reached 5.27 billion, equating to just under 67% of the world's population. With almost 10 million new users per month. Internet users have grown by more than a quarter of a billion since 2020. There are now 4.80 billion internet users around the world equating to almost 61% of the world's population.

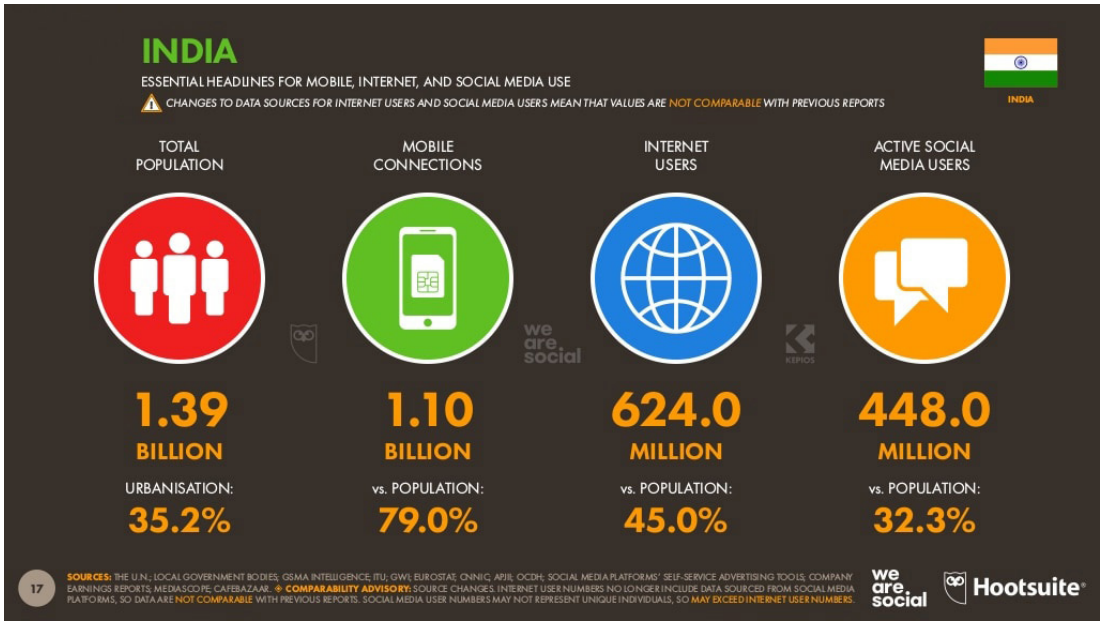


There are now 4.48 billion social media users around the world which is about 57% of the world's population. The average daily usage is 2 hours and 25 minutes.



Research has shown that artificial intelligence (AI) can also be used for the greater good. Five global problems that machine learning could help us solve are in the areas of:

1. Health care – AI helps predict the outcome of drug treatments.
2. Making driving safer with self-driving cars.
3. Transform how we learn – Artificial tutors could take the lead in delivering personalised education.
4. Help us to be smarter about our energy consumption. Google and other tech giants have enormous data centres that require a massive amount of energy to run the servers and keep them cool. Google has used its artificial intelligence platform Deep Mind to predict when its data centres will get too hot. Cooling systems are only activated when required. AI has saved Google around 40% in energy costs at its server firms.
5. Help in wildlife conservation by tracking animal movements and identify what habitats we need to protect.



INDIA

- There were 624 million internet users in India in January 2021, out of a global total of 4.72 billion.
- Internet penetration in India stood at 45% in January 2021.
- India has 1.10 billion mobile connections as on January 2021.
- There were 448 million social media users. The number of social media users in India increased by 78 million between 2020 and 2021. India's social media users were equivalent to 32.3% of the total population.

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Aadhar: Concerns for the Rural World in the Age of Digitisation

Mr. Robin Mathew

Over the past decade, a significant rise in the development and consumption of digital technology has been observed. At present, there is a 33% internet penetration and 37% smart phone penetration among the rural population of India. It is projected that there will be around 900 million internet users across the country by 2025. At the global level, every seventh internet user is expected to be an Indian by 2025. Thus, digital technology is expected to revolutionise every sector of the economy and impact society in different ways.

Traditional banking institutions have been criticised for taking financial inclusion to the rural areas at a slower pace. With the establishment of the India Post Payments Bank, financial inclusion in the rural areas has received a huge thrust. Most of these traditional banking institutions, including micro financing institutions have initiated a phygital[1] mode of banking experience for their customers. On the other hand, FinTechs[2] are aggressively racing ahead of traditional banks to reach out to rural customers. The Unified Payment Interface (UPI) has increased the digital payments transactions many fold. The COVID-19 pandemic has provided a major thrust to the adoption of UPI as the most convenient and safe mode of financial transaction even in the rural areas. From an economic point of view, experts sense optimism in the rural areas to adopt technology. The increasing penetration of smart phones and cheaper data plans has improved the internet penetration in rural areas.

One of the Government projects that benefitted from the digital technology wave is the Aadhaar Project. The Aadhar number is a 12-digit random number issued by the UIDAI (Unique Identification Authority of India) to a resident of India based on their demographic and biometric information. The biometric information collected for Aadhar consists of facial photographs of the individual, all 10 finger prints and a scan of both irises. UIDAI holds the potential to create a vast database containing this personal information. A database of this magnitude for a country like India has huge economic and social potential. Of the 1.3 billion population, India has already collected around 1 billion digital identities of its citizens.

The Aadhar based verification procedure has helped companies, institutions, and organisations to adopt a secure documentation process and reduce paper consumption thereby facilitating sustainability methods. The Government, through its Digital India initiative, intends to establish the Aadhar Enabled Payment System (AEPS). AEPS enables an individual to perform banking transactions for their Aadhar linked bank account through a business correspondent of the bank. Basic banking transactions like balance enquiry, cash deposit, cash withdrawal and remittances can be performed through this correspondent. This is very beneficial especially for those in the rural areas where access to banks is limited. It will help them to gain access to banking facilities thus making quick and easy transactions. This Aadhar enabled bank network will facilitate direct remittance of government benefits through its various schemes, thereby eliminating the leakages in the system. Programmes such as the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Public Distribution System (PDS) and Social Security Pensions (SSP) are some of the prominent and vital programmes that use the Aadhar ecosystem to ensure direct transfer of benefits to the intended recipients. The Supreme Court of India in the *Puttaswamy vs Union of India (2017)* judgement had asserted that Aadhar is essential to avail the government schemes as the very purpose of Aadhar was to ensure upliftment of the poor and the marginalised sectors through direct transfer of subsidies to them.

The Aadhar project has concerns that need to be addressed to maintain the privacy of individuals and the credibility and authenticity of the project. Data security and individual privacy concerns with respect to the Aadhar project have often been raised. Aadhar-based verification is mandatory in many areas; from bank KYCs to accessing social welfare schemes, it is used by all entities (Government & private) to carry out their business. It is this easy access to even private entities that has been criticised by various civil society institutions and even the Supreme Court. Since the Aadhar system is a centralised system with a mass identifier, there is a major concern of mass surveillance arising from it. Cases of individual profiling can also increase as it becomes easier to track individual activities across different services without consent. The Aadhar database has encountered data breaches in the past. The World Economic

[1]Phygital is a new term combining the words physical and digital.
[2]Financial technology (Fintech) is used to describe new tech that seeks to improve and automate the delivery and use of financial services. It also includes the development and use of crypto-currencies such as bitcoin.

Forum's (WEF's) Global Risks Report 2019, said, "*The largest (data breach) was in India, where the government ID database, Aadhaar, reportedly suffered multiple breaches that potentially compromised the records of all 1.1 billion registered citizens. It was reported in January 2018 that criminals were selling access to the database at a rate of Rs.500 for 10 minutes, while in March a leak at a state-owned utility company allowed anyone to download names and ID numbers.*"

Though from a theoretical point of view, the usage of Aadhar enabled systems through digital technology seems optimistic, it is not as easy from a practical point of view. To be a recipient for each programme, one needs to seed one's Aadhar to each programme. This Aadhar seeding requires a documentation process that needs to be completed. Every time an individual accesses these programme benefits, they have to undergo the Aadhaar-Based Biometric Authentication (ABBA) i.e., a verification of their fingerprint and their Aadhar ID card. The verification process depends upon adequate internet connectivity, power supply, functional POS machines and real-time information from UIDAI servers. Only when the verification is complete, would an individual receive the benefits. The individual must undergo this process every time he/she has to access the programme benefits. In many rural areas of India, internet connectivity is not adequate. Many of these areas don't even receive sufficient power supply due to which many of the POS devices aren't functional all the time. Even if the finger print scan is sent to the servers for verification, the delay in confirmation slows down the process. Individuals in remote rural areas are thus prevented from enjoying the benefits of these schemes. Pensioners are mandated to seed their Aadhar with their pension accounts to continue receiving their pension benefits. Due to lack of technological assistance or know-how, many in rural areas haven't been able to complete the Aadhaar-seeding formalities or in some cases there were errors in their seeding procedures. This led to the deletion of their names from the pension records as the systems found their accounts to be incorrect.

Currently the Government is planning to link Aadhar with respective voter IDs. This however seems to be in violation with the *Puttaswamy Judgement* wherein Aadhar was allowed to be linked only with welfare schemes and PAN. There are concerns of mass disenfranchisement if such a linking is undertaken. In Andhra Pradesh and Telengana, almost 55 lakh voters were disenfranchised when the Election Commission linked the voter IDs with Aadhar in 2015. There is also a fear that such a linkage might lead to increased surveillance as well as further disenfranchisement based on identity. This will affect many in the rural areas who do not have adequate platforms and mediums to voice their concerns.

"The Government of India's Digital India programme aims to power up digital technology and to establish and strengthen connectivity of Government services to every part of India. Plans are being made to cover all rural and urban areas with broadband services, universal mobile connectivity, and much more. "

There is a need for an independent regulator for the Aadhar project. This regulator will be responsible for its audit, maintenance of high security standards, regular checks for function creeps and managing the intermediaries. It must also address the issue of exclusion of large number of individuals from the vulnerable sections of the society who are unable to access the welfare schemes. It is also responsible to emphasise the right to privacy principle in the Aadhar project and to be sure that it is adhered to. The regulator ought to be the protector of the vulnerable sections from whom the Aadhar project was primarily designed.

The Government of India's *Digital India* programme aims to power up digital technology and to establish and strengthen connectivity of Government services to every part of India. Plans are being made to cover all rural and urban areas with broadband services, universal mobile connectivity, and much more. It needs to take into account those who lack the technical know-how or who do not have access to basic technology in its plans to transform India into a digital economy. We see a rising trend where there is huge thrust to incorporate technology into the various social schemes of the Government right at the initial stage. However, this is being done without the establishment of proper infrastructure for digital technology or in an environment where most of the users do not have access to the requisite technological tools. We will continue to see an increasing digitisation of social programmes in the future. The adoption of digital technology in every sphere of the economy is inevitable. Therefore, care needs to be made to ensure that the vulnerable groups, especially those in the rural areas, are also taken along in this digital revolution taking place in the country.

(Mr. Robin Mathew works with the Union of Evangelical Students of India (UESI) Publication Trust and based in Mumbai. He can be reached at robin.aju@gmail.com)

Digital Space and Safety

Mr. Shashank S. Rawat

To be or not to be in the digital space is no longer the question. It's the norm or should I say it's by default. Not being in the cyber world is the exception and quite "radical."A new member signs up on Linked every two seconds! Facebook today has more members than there are people in China. We are living in a generation which is taking everything online.

Gone are the days when we used to go shopping, we shop online now. Why write letters when you can text, call and video-chat from your cell-phone? Marriages may be made in heaven, but online dating sites are full of suitors. The lines between what is real and what is virtual have started to blur with the emergence of augmented reality.

In this new normal, crimes have also gone online. What if someone copies your Facebook profile information, makes a duplicate your profile and then starts abusing your friends, or demanding money or even worse commits cyber-crime? For all practical matters, it's you who is doing all that!

Concerns over online safety and privacy have grown in recent years. Data breaches continue to happen without most of us knowing whether our data is safe or already stolen. The "not so" recent case of Cambridge Analytica shows how vulnerable we all are to the misuse of our data. They exploited the data of over 50 million Facebook users to influence the 2016 American presidential election. [11]Such incidents should gather our attention.

A study conducted by the Pew Trust reports that 13% of Americans have had their social media accounts taken over by an unauthorised user.[2] I am sure we have either experienced such things or at least know people who have experienced such attacks. Hence, it is important for us to understand the risks and take necessary steps to keep ourselves safe.

Common threats in the Digital Space

Data Mining

Every social media account creates data online. This happens whenever we post something, add friends, comment or buy online. This data includes our personal information like name, location, financial details, etc. As shared earlier, companies use this data to come up with better advertising or products. Amazon, for example, analyses your recent searches and then offers suggestions of products that you might be tempted to buy. Sometimes, companies share user data with third-party firms without the knowledge of the users. You may be okay with Facebook having your friends list but would you like Facebook to read your chats?

Phishing Attempts

Phishing is one of the most common ways that anti-social elements gain access to sensitive personal information. It can happen via an email that promises a high-paying job, a SMS that says you have won a jackpot or a phone-call from the so called "bank." These communication mediums are used to trick people into sharing their confidential data. Phishing attacks try to present themselves as a legitimate organisation and thus people often get fooled. If suddenly you get a message promising you a huge sum of money for some lottery or contest, beware it could be a phishing attack.

Malware Sharing

Malwares (malicious software) are designed to gain access to computers and the data they contain. Malwares can be of various types; some are used to steal sensitive information (spyware), extort money (ransomware), or profit from forced advertising (adware). Malware can be spread through innocent looking invitations to join a group, click a link or some free downloads.

Botnet Attacks

Automated accounts that create posts or automatically follow new people whenever a certain term is mentioned are called Bots. A network of multiple bots is called a botnet. Bots and botnets can be used to steal data, send spam, and help cybercriminals gain access to people's devices and networks.

The above-mentioned threats are only the tip of the iceberg. There are other threats and harassment such as cyber bullying, trolling and stalking that also causes a lot of harm.

[1]https://defendingdigital.com/security-tips-for-social-media-safety/
[2]https://sopa.tulane.edu/blog/key-social-media-privacy-issues-2020

How to Increase Your Digital Space Safety and Privacy

1. Secure each of your online accounts with a different, long, complex password (20+ characters, with a mix of uppercase, lowercase, numbers, and special characters). Your user IDs and passwords are as important as your house keys, ID cards, etc. Ensure that you don't take them lightly. Enable two-factor authentication wherever possible. Pay attention to the security questions, forgetting these can lead to loss of account access. Delete any digital account that you don't use or require.

2. Be careful with messages and avoid clicking on unknown links. Reading a link before clicking it can often help. Sometimes you will see a message that talks about a job opportunity in a famous company but the link will not mention the company's website. These are clear red-flags and best avoided. Avoid forwarding or believing forwarded messages without proper verification. A simple way to do it is to paste the message on *Google* search.

"The digital space is the new medium for communication. We just need to understand how best we can navigate them. The bigger challenge is to learn how to be a Christian in the digital space...."

3. Disable location sharing in all social media apps. It's not necessary for the whole world to know where you are. You don't want to reveal too much about your behaviour (places you frequently visit, times you commonly travel, etc.) that could be used against you.

4. Be careful with photos. It is not a good idea to post photos of debit or credit cards, ID cards and other items that have sensitive data. Every time you post a photo (or anything), use any controls that may be available to limit the visibility of the post to the smallest audience necessary.

5. Be careful with what you put in your bio. Don't reveal too much personal info. Understand who can see what. Control your privacy by restricting public views. Don't reveal too much personal info. Some platforms let you hide groups or interests, so take advantage of that. An imposter can use these data to act like you.

6. Verify "Friends."When you receive a friend request, it's a good idea to verify the person's identity. You need to confirm that they are the actual owner of the account, and that they really sent you a friend request (rather than someone who hacked their account, or an imposter account). You can do that by asking them in person, or through some other trusted channel that you've previously used to communicate with them (email, other social media, text/SMS, phone, etc.). Avoid adding unknown people.

7. Log out of others' devices. If you use someone else's device (computer, phone, tablet, etc.) to log into your account, be sure to log out when you're finished! You can log into your account from one of your own devices and find out all the devices from which you are logged in and log out remotely. Try as much as possible to use "incognito mode" while logging in from devices that are not yours.

8. Be careful with third party apps and personalised ads. Read the terms and conditions before you grant a third party access to your digital account. Find out what permissions the third party will have (what data they'll receive, and what they can do with your account). Whenever possible, limit the amount of personal data that the digital apps collect and share about you.

In conclusion, I hope I have not scared you with this article. The digital space is the new medium for communication. We cannot be fence sitters while the entire generations spend their lives online. We need to move into this world and be ambassadors of Christ. Yes, there are dangers and challenges just like the ones faced by Paul and others. We just need to understand how best we can navigate them. The bigger challenge is to learn how to be a Christian in the digital space. My attempt with this article is to encourage you to explore the digital space safely while you use it as a tool to worship God through all that you do online. The tips mentioned here are to help you. Being privacy and safety minded can go a long way in helping you to make the right decisions in this new frontier of mission.

(Mr. Shashank S. Rawat serves with the Union of Evangelical Students of India, as a field staff, helping students impact their campuses and the nation. He can be reached at shasha1990@gmail.com)

Unshakable

A crisis often brings out our best coping mechanisms. In this issue, we present the innovative efforts of the People Science Institute (PSI), a NGO based in Dehradun, Uttarakhand, in institutionalising earthquake safe features in house construction through mason training in Uttarakhand in the aftermath of Uttarkashi earthquake in 1991. Though this is not new, yet we wanted to highlight their story as the local contextualisation of house construction and mason training principles can be replicated even today. The massive earthquake which had hit Uttarkashi brought a lot of destruction and loss of lives. While most of the modern houses collapsed, few traditional houses known as pherols in local parlance withstood the earthquake. Pherols were earthquake resistant traditional houses which were built by local masons using local materials. The PSI therefore started constructing earthquake resistant houses in Uttarakhand area. The PSI motivated the local masons to perpetuate earthquake resistant features. It facilitates and conducts training of masons as a continuous learning and adaptation process.

In earthquake and tsunami prone areas, the People Science Institute is training local masons in traditional earthquake safe techniques for making communities secure from these hazards.

The experience of traditional houses not being affected by earthquake convinced the PSI that it was possible to minimise casualties during an earthquake by following certain guidelines while constructing houses and buildings. The PSI believes that earthquakes do not kill people, collapsing houses do. Hence, the need to make rural houses earthquake-safe i.e. that does not kill people. Incorporating earthquake safety features add less than 10% to the construction costs. After each earthquake, PSI's team study the architectural preferences of the local people, materials and skills that are locally available. Thereafter, workshops were conducted to train local masons in earthquake safe construction techniques. PSI engineers regularly monitor the actual building processes once the construction starts.

PSI sought to institutionalise this traditional knowledge through mason education and training programmes. It further disseminated these programmes to other disaster

prone areas including Latur in Maharashtra, Jabalpur, parts of Gujarat, the Andaman and Nicobar Islands, Tamil Nadu, Kashmir and across the state of Uttarakhand and Himachal Pradesh. PSI had initiated the programme in the aftermath of a disaster when communities have immediate need for temporary housing. The types of houses constructed depend on the local conditions and available materials. For its training programmes, PSI partners with local organisations in the disaster affected area. The key elements of the mason training programme are as follows:

- Only experienced masons were selected for training. As these masons usually employ other masons to assist them, they pass on the imparted skills to the rest. This helps in creating a cadre in a chain reaction method. A training session usually covers 15 to 20 masons for a period of 5 days.

- Training manuals were translated and written in local language. As much as possible, locally used terms and words are used in such manuals, booklets and posters. PSI posters have been developed in Hindi, English, Gujarati, Urdu, Tamil and Marathi. PSI staff and trained masons took the training sessions. Usage of local masons helps ensure that the instruction is done using local terminology. Instruction is carried out using a mix of lectures and audio visual aids. Three dimensional models and simulations such as 'shaking tables' are used to demonstrate the effects of an earthquake on buildings and the differences between regular buildings and those that employ principles of earthquake safe construction.

- The lectures were accompanied by practical lessons. Masons collaborated to build earthquake safe house in the course of their training. Masons were paid a stipend for the duration of training. This covers their travel expenses to the venue of training and also compensates them for their loss of wages. All masons are also provided with materials and some literature on earthquake safe construction techniques. Masons used these materials to educate and convince prospective home owners of the need for incorporating these techniques into their construction. A masons' guild with over 250 masons across the state have been formed. These masons share their experience through phone calls or post cards.

PSI's programme in institutionalising earthquake safe features in overall house construction through mason training in Uttarakhand has evoked positive responses from all quarters. The District officials of Latur invited PSI to work in reconstruction and training of masons after the earthquake. PSI has since been involved in a series of mason training programmes in partnership with local organisations across the state of Uttarakhand.

In Latur, PSI translated its posters and publicity material into Marathi and conducted mason trainings. Latur and the adjoining district of Osmanabad were also the first places where PSI undertook construction of permanent shelters. The PSI concept of common walls between two houses, reusing old materials and bulk purchase of construction materials helped reduce the costs of reconstruction significantly. Later on, PSI worked on temporary shelters in earthquake-affected Chamoli region of Uttaranchal and in districts of Orissa affected by super cyclone in 1999. The same work continued in Bhuj, hit by the earthquake in 2001 and in Tamil Nadu and Andaman Islands affected by the Indian Ocean Tsunami in 2004. PSI also worked in the Kashmir valley following the earthquake in 2005. While adhering to principles of earthquake safe construction, PSI has used locally available materials and designs for construction of temporary shelters and homes built in the aftermath of a disaster. For instance, the houses constructed in Gujarat - termed midterm shelters as their life exceeded the 12-15 months - used the locally available 'morvi' tiles. Similarly houses in the Andaman Islands, which experienced the effects of both earthquake and high rise waves during tsunami, were constructed using hollow cement blocks, bamboo mats and wooden frames. Houses in Kashmir used raised floors and foam within the walls to cater to the climatic conditions of the area.

PSI has a robust feedback mechanism in place to monitor the effectiveness of the mason training programme. It has established a guild comprising of all trained masons. The guild charges a onetime fee of Rs. 50 for membership. All members receive a regular newsletter (published by PSI), which updates them on the latest developments and also serves as a platform through which masons can share their concerns and experiences. PSI distributes self-addressed postcards to trained masons for writing back to PSI on their experiences and feedback. On few occasions, PSI staff visits masons' worksites and provide them with additional guidance on earthquake safe construction techniques. Regular feedback sessions were conducted for masons to better understand the challenges they face in implementing what they were taught in the trainings.

On the policy front, the PSI has pushed for owner-driven construction programmes in which government and non-government agencies act as facilitators. PSI sees the reconstruction of permanent homes as a first step to development of a community. For this it attempts to enhance the self-reliance of the affected people by building on traditional knowledge, upgrading local skills, using locally available materials, generating local employment and creating a local talent pool.

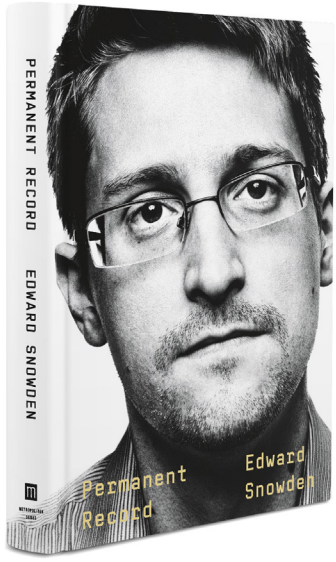
(Adapted from the book 'Turning the Tide: Good Practices in Community Based Disaster Risk Reduction,' published by EFICOR and Sphere India, 2010, pp. 100-102)

Books on our Desk

Permanent Record

By Edward Snowden, Macmillan, UK. 17 September, 2019. 353 pages.

Mrs. Julie Bellingham



The name 'Edward Snowden' hit world headlines in 2013, after Snowden revealed that the Government of the United States of America was gathering extensive information on private citizens as part of its mass electronic surveillance programnme. Permanent Record is the well written memoir of Snowden, a former contractor for the USA National Security Agency, in which he describes how he was involved in building this system of surveillance and why he decided to reveal government secrets. It is a book that raises important and very relevant questions about the extent to which the government should be able to restrict and violate citizen rights for the sake of national security, whether it is acceptable for one to break a contract of secrecy in order to comply with our ethics or for the sake of the public good, and how safe our personal information is on the internet.

The book starts off slowly as Snowden describes his childhood and his first introduction tocomputers, the internet, and programming. From an early age, Snowden desired to spend every waking moment online - the web was his 'jungle gym'. He excelled in computing, programming and hacking and, before he had even finished high school, he stumbled across a security hole on the country's nuclear research facility and reported it to their webmaster.

The book gathers momentum when Snowden addresses the events that took place in the wake of the terrorist attacks on September 2011. After a brief stint in the army, Snowden decides to respond by doing what he does best - using his computing and programming skills. In their urgency to hire people with technical talent, the Intelligence Agencies 'flung open' their doors to young technologists and gave them access to very sensitive networks. At the age of 22 and without an undergraduate degree, Snowden was able to gain a job in the Intelligence Community and rise up the ranks quickly. Snowden describes the multiple roles he carried out working for, or contracting to, American Intelligence Agencies. Over the years his work included that of cyber security analyst, system administrator, system engineering, and systems analyst; all of which Snowden describes using everyday language.

Eventually Snowden arrives at the point when he realises that not only is the government collecting data about our activities, our locations and our desires but, without permission, the data was being stored forever and sold in secret. The surveillance and data gathering were not limited to American citizens either, or to those who posed a legitimate threat to its security, but its reach was global and included the ordinary citizen. Snowden is particularly concerned for his fellow American citizens whose data was being collected, stored and sold, without their consent and in contravention of the constitution of the United States.

Snowden details how he went about copying the documents, taking them off-site and then sharing them with journalists - no small feat. Snowden makes it clear that he chose this course of action not because he wanted to weaken or threaten American security but because he believed citizens have rights and for those to be violated, the State must justify its intrusion. His passport was revoked while he was in Russia, on route to South America, and to this day, he still resides in Russia. His determination to bring the situation to light and his commitment to be true to his convictions is impressive, particularly since Snowden still stands accused and there are many that still consider him to be a traitor.

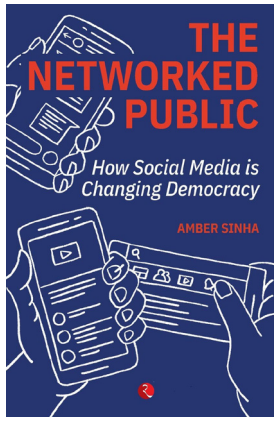
At a time when governments are known to introduce emergency measures to tackle threats, Snowden's book highlights important questions around the rights of citizens to privacy, to freedom, and to freedom of expression. If our rights are to be violated, who will decide when they will be restored, what limits are there to the data gathered and to these emergency measures, and who will oversee those who are overseeing our data? This memoir, from the perspective of someone with significant knowledge in the area of hacking and computing, destroys any false ideas one might have about one's anonymity online and the possibility of permanently deleting anything stored on a computer or posted on the internet. While one would hope that Snowden's whistle-blowing has resulted in a greater focus on online privacy and internet security in recent years, this book leaves the reader with a niggling feeling that there is always the possibility that big brother is watching and listening.

(*Mrs. Julie Bellingham works with the EFICOR. She can be reached at communications@eficor.org)w*

The Networked Public:
How Social Media Changed Democracy

Rupa Publications, New Delhi, 2019
By Amber Sinha

Mr. Suanmuanlian Tonsing



The discourse of this book revolves around the challenges of democratic functionality where social media, as innovation, disseminates less criticality across the public. It provides an insight on how public consent is manufactured through strategic use of the media - media as the medium to inject misinformation. Amber Sinha argues on how political parties and its interrelation with the governmental bureaucratic forms manipulate the public through the process of collection of datas from social media platforms to control their thought patterns into specific directions. This in turn decides the form of decision making which is impacted hugely by innovation in technology transforming the rationale capacities of the individuals as significant decision making subjects, yet can be manipulated with propagandas. Substantiated interestingly well enough, the author turn towards the analysis of the pragmatics of highly politicised data such as electoral datas to dictate the nature of campaigns on how the political parties choose to represent voter's interests.

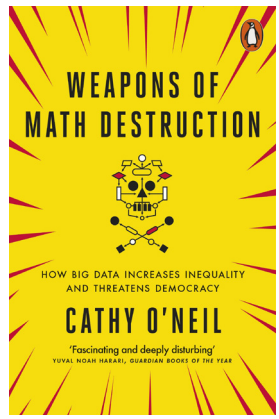
The book challenges on the problems of political targeting which feeds algorithms of platforms like Facebook, by showing the public content which people in power feel the public should like and to whom the algorithms think the public belong. Besides all these propagandas through information manipulation, the author argues that for deliberate functioning of democracy, the public can organise itself in a way that it can use the information that it drew from its social environment to inform its collective action, which is the essence of democracy. It situates the public's ability to choose its sources of information and recognise privately owned platforms/forums and to understand the intentions of disseminated information as a necessary demand of the contemporary. This book is an insightful writing for readers whose interest is in understanding social media and the transformation of democracy, politics of voting, political economy of data and manipulation of public data as resources.

(Mr. Suanmuanlian Tonsing is currently pursuing PhD in Sociology from the Centre for the Study of Social Systems, Jawaharlal Nehru University, New Delhi. He can be reached at muanliantonsing@gmail.com)

Weapons of Math Destruction:
How Big Data Increases Inequality and Threatens Democracy

By Cathy O'Neil, Penguin Publication, 6 July, 2017. 272 Pages

Mrs. Joan Lalromawi



In this book, Cathy O'Neil explains big data algorithms and reveals the truth behind big data as it could be manipulated and used in various ways. In our daily life, data has been gathered from our schools, banks, health insurance, etc not by humans, but by mathematical models with the information that we gave out. This should have led to greater fairness: Everyone is judged according to the same rules and bias is supposed to have been eliminated. But as revealed by O'Neil, that is not true. She mentions how being on the wrong side of an algorithmic decision can snowball in incredibly destructive ways.

The author points out that big data contribute to socio-economic inequality. It is devastating how efficiently private colleges or loan companies target the economically poor. The flaws and limitations of big data are ignored and substituted for the truth. They reinforce discrimination: A poor student might not be able to get a loan because a lending model finds him too risky based on his/her gender, race or place of residence. He/she would have been deprived of an education that could have pulled him out of poverty. These lending models, therefore, favour the few rich or those who wield control over those datas.

Tracing the arc of a person's life, from college to retirement, O'Neil exposes the black box models that shape our future, both as individuals and as a society. Models that score teachers and students, sort resumes, grant (or deny) loans, evaluate workers, target voters, set parole, and monitor our health. The author O'Neil rightly calls on modelers to take responsibility for how their algorithms are being used. But in the end, it is also up to us to be cautious about the models that govern our lives. This book enables us to uncover the truth about data, be mindful about revealing it and think about change which is fair for all.

(Mrs. Joan Lalromawi works with the EFICOR, New Delhi. She can be reached at joan@eficor.org)

Catering to the Need of the Community

The Freedom Prayer House Church was set up in 2013 at Kolar Gold Fields in Karnataka. The vision and mission of the church is to reach out, serve the needy and practice integral mission. A thorough understanding and conviction of wholistic mission, grounded in Scripture, motivates the church to put its belief into practice through many avenues of work among the communities in the Kolar Gold Field areas. It was after exposure to EFICOR's training on Integral Mission that Pastor Rajkumar became fully convinced of the importance of practicing integral mission.

Pastor Rajkumar giving awareness to the children on climate change issues

The Pastor was introduced to the Parivartan model of working along with the community in church ministry. This motivated him not just to work for the poor but also to work alongside the community for their development. With this motivation, the church started working with the community and was able to see a lot of change in the lives of the people.

Seeing the need of the community in the field of education, the church became involved in enrolling students in colleges and helped them to avail scholarships. The church identified needy children in the community and recently helped 100 children to enroll in a basic computer course. They also distributed stationery items like books and school bags to these children. They enrolled 50 students in a Spoken English course. Through these actions, literacy levels improved and the community also became more aware of the importance of education. The church gradually expanded its work and catered to the needs of the youth. It initiated a programme called 'Setting free' and has been involved with this for the last 15 years. This programme seeks to connect with the youth and build awareness on addictions and other youth related issues.

The church also built awareness on various social and environmental issues such as illiteracy, health care, domestic violence, and climate change issues to sensitise the communities on these crucial issues. Every year, on the World Environment Day, the church builds awareness among school going children and distributes saplings to them. This year (in 2021) it gave out 9000 saplings to families. During the first and second wave of the pandemic in India, the church made a tremendous effort to help the community cope with the crisis. The church provided food aid, hygiene and sanitation kits like face masks, sanitizers, and hand wash. Their efforts helped 200 families.

> "Fruit of salvation should be giving. Every church member has responsibility to practice integral mission and work for the poor and take care of the environment."
> *Pastor Rajkumar*

The efforts of the Freedom Prayer House Church have therefore significantly impacted the lives of the community in and around Kolar Gold Fields in Karnataka. They have been able to work with the community for its own development.

(Written by Mrs. Joan with inputs from Pastor Rajkumar, who is the Pastor of the Freedom Prayer House Church, Kolar Gold Fields in Karnataka. Pastor Rajkumar can be reached at raj.servespeople@gmail.com)

Can Technology Transcend Scripture?

Biblical Reflections from the Word Versus the World

Ms. Annie Thomas

Read & Reflect

As users, beneficiaries and inventors of digital technologies, let us reflect on our own relationship with the digital technologies of the world. The Questions below have been outlined to enable us to have personal reflection from the Word.

10 Deep Questions for Personal Reflections:

READ & REFLECT

1. Do you know the deadly sins detestable to the Lord? Do you see their digital twins in the world? (Proverbs 6:16-19, Colossians 3: 12-17) Will you swap them with the fruit of the Holy Spirit?

Image Source: Wix.com, taken from Ari Paul on Twitter: "https://t.co/KaaYzrNeJl" / Twitter

2. Why has the Lord provided us with skills? Does God enable us with skills so that we could to serve Him better? (2 Chronicles 2:7, Psalm 33:3, Psalm 78:72, Exodus 36:4, 2 Tim 2:24)
3. What is the cost that comes with love for the world? (1 John 2:15-17, James 4: 4, 1 Cor 1:20, John 12:25, John 3:16-19). Light vs Dark. Choose one.
4. Do you think the Bible is the single source of truth about creation for the scientists, intellectuals, atheists and other forms of pluralism? Why do you think so? (Gen 1:1-Gen 2:2)
5. Have advancements in medical technology proven that anyone can create life out of nothing? Why is artificial intelligence failing to match natural intelligence? Why is man unable to live forever? (Psa 89:48, Phil.1:23)
6. Why is man a living soul? Can this be created through technology? (Gen 2:7, Mark 8:37, Hebrews 4:12)
7. Can you see God's Grand Design Thinking? In Genesis 11:1, we see that the world has one language and common speech. At the cradle of civilization at Babylon, the Lord saw people creating the monumental Tower of Babel and a new identity for themselves as the hallmark of human achievement. The Lord saw the beginnings of the self-proclamation. He foiled human plans by divergence – a deliberate effort of confusion with divergent pluralistic languages, incoherent beliefs, tribes and scattered them into nations. In Revelation 5:9-10, God's Kingdom is made from everytribe and language and people and nation converging with one accord that Jesus is worthy to take the scroll and open its seals because He was slain and purchased everyone of the multitudes for God.
8. Have you wondered that in the worldly realm, physical life is ethereal and comes with a limited shelf life, we become slaves of products like Facebook, Twitter etc and the products are offered free by manipulating and nudging our behaviours to suit the monopolists? How are you exercising your free will? (Gen 2: 16, Luke 6: 37, John 8: 36)

(Ms. Annie Thomas is a Product Specialist at TCS architecting solutions in digital technologies for enterprises. She appreciates deep Bible study reflections challenging world standards in daily situations to be more like Jesus. She can be reached at ann4ever@gmail.com)

IDEAS FOR ACTION

AS AN INDIVIDUAL

- Christian ethical vision for technology starts from a place of understanding who God is, who we are as His image-bearers, and the proper use of technology in our lives. As we all live in a digital world, we should be mindful and use technology wisely.
- We must keep ethics (or discipleship) at the forefront in our use of technology because technology shapes us in countless ways. We live in a world of overflowing information, countless distractions, and constant connections with others. Be cautious of cyber threats and security like - malware, emotet, denial of service, phishing, password attacks, etc.
- Be careful while accessing or sharing in online information sources such as newsfeed, blogs, open forums, social media, or platforms like chat applications, community forums, etc.
- Mobile phones and various other digital applications are in constant threat of attack. Invest in reliable software that monitors the security of a network so that your systems are protected against attacks.
- You can help stop spread of mis-information in the digital world by not automatically forwarding messages received. Read it and if useful for others, forward the messages.
- While using other's devices, be sure to log out of all the devices. Use incognito mode while logging in devices which are not yours.

AS A CHURCH

- During this pandemic, technology has enabled us to stay connected, continue our education, and manage our day to day living. As a church, we could seek to use these tools not as simple substitutes for real embodied community, but in ways to reach, train or equip the community.
- Technology has enabled churches to engage with its members efficiently and also relate with the millennials and youth. Your church could explore innovative ways of reaching out to members and to the community through various ways -
    - Re-creating Biblical stories using virtual reality platforms.
    - Attend and host technology workshops and conferences.
    - Sharing daily devotionals via wearable technology like smart watches.
    - Promote ideas for philanthropy through social media posts.
- Brainstorm ideas within your church members on how to continue to bring out the best in people's potential during crisis and how to thrive even during the unprecedented times.
- As a church, we must be cautious not to lose sight of the importance of physical contact with others and be emotionally present as we use technology.

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54, B - Block, Community Centre,
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Tele / Fax: +91-11-25516383/4/5
E-mail: hq@eficor.org
Web: www.eficor.org

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Registered office address:
1305, Brigade Towers, 135, Brigade Road, Bengaluru - 560025, Karnataka.