# Luke's Journal

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**Scroll less, Sleep more!**

**Need and Prayer in the time of COVID-19**

**Stewarding your Time with Tech!**

**Technology and Snakes**

# Technology

## God is not on mute

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# June 2022 – Technology


**Editorial**

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# WHY BIBLE COLLEGE?

The world of medicine and dentistry is full of unique opportunities as well as particular challenges for Christians. Being well prepared for what God has in store for you – whether a busy hospital career, a private practice or the overseas mission field – requires a solid foundation in God's word.

What is the relevance of theology to the medical world? How can you think biblically through ethical issues? How do you cross cultures with the gospel? Setting aside a year, or more, to study and discuss and think at Sydney Missionary and Bible College (SMBC) will help lay a foundation for a lifetime of serving Christ, wherever he leads you. Studying at SMBC gives you in-depth teaching of the Bible alongside renowned mission expertise. All this is done in the context of an enriching community of fellow students and highly experienced lecturers.

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***Steven Naoum***

*My year studying at SMBC was certainly the most significant year of my life. On reflection it equipped me greatly for every endeavour I have undertaken since as I have sought to live as a child of God in his world in all I do. Spending a year completely focussed on God, his goodness and sovereignty, and dwelling day after day on his word – what he has said and done throughout history – was the best decision I have made!*

*Study was rigorous and of a very high standard, and I still say this having completed a PhD and being half way through specialist clinical training. But it wasn't just a thing of the head – my heart and will were continually challenged – both in the classroom and by living in the college community.*

/SMBCOLLEGE

# Technology: God is not 'On mute'! – Dr Catherine Hollier

## What if every Christian doctor was connected as the body of Christ!

**The thick 'silver lining' that has come with the COVID-19 pandemic is that it has dragged medicine kicking and screaming into the 21st century.**

Telehealth, eScripts, remote imaging and pathology referrals, secure messaging, Medicare web-based services, SafeScript, MyHealthRecord, Australian immunisation register (AIR) access, PRODA, pharmacy delivery-to-your-door, the list goes on. All these have progressed at a cracking pace and are now regular parts of life as a GP. The techno-creep has even reached our specialist and hospital colleagues, albeit at a slower pace!

Scientists have collaborated around the world to develop vaccines and COVID-19 treatments faster than ever before. Regional, national and international meetings are possible from the comfort of home, albeit sometimes at inconvenient times. The world has expanded digitally whilst contracting physically, with lockdowns and isolation part of pandemic life. Working from home, international resourcing, live-stream meetings, mobile offices, online ordering and home delivery have all increased exponentially. Many of these things are here to stay, even though the conditions that painfully birthed them have thankfully passed.

> *"As complexity increases, our ability to make sense of it decreases, and we are left further and further behind by a runaway technology."*

There is a dark side too. Cyber-attacks, social media 'conspiracy theories', wide-spread misinformation, extremism, vaccine hesitancy, politicalisation of information (originating in the US, but influencing the globe), fake treatments, pop-up telehealth clinics, and (in the global picture) the digital divide between those who have technology access and those who do not has led to an increase in poverty. Human cognitive limits lead to information overload. Dopamine stimulation drives addictive use. Social validation spawns the influencer culture. Confirmation bias amplifies fake news. Outrage leads to polarisation. The drivers are greed, delusion, fear and jealousy – sin at its ugliest. Extreme views are magnified as widely representative, whilst moderate voices are less likely to be posted. Unfortunately, even though we are aware of it, we are still affected by what we see. As complexity increases, our ability to make sense of it decreases, and we are left further and further behind by a 'runaway technology'.

Edward O. Wilson stated in 2009,[1] *"The real problem of humanity is the following: We have paleolithic emotions, medieval institutions and godlike technology. And it is terrifically dangerous, and it is now approaching a point of crisis overall."* Edward speaks from an agnostic perspective. This is not new, although technology does seem to have accelerated at an astonishing rate this last century.

Early in human history, the Bible sees our attempts to control technology with the tower of Babel:

*"And the LORD said, 'Behold, they are one people, and they have all one language, and this is only the beginning of what they will do. And nothing that they propose to do will now be impossible for them.'"* (Gen 11:6).

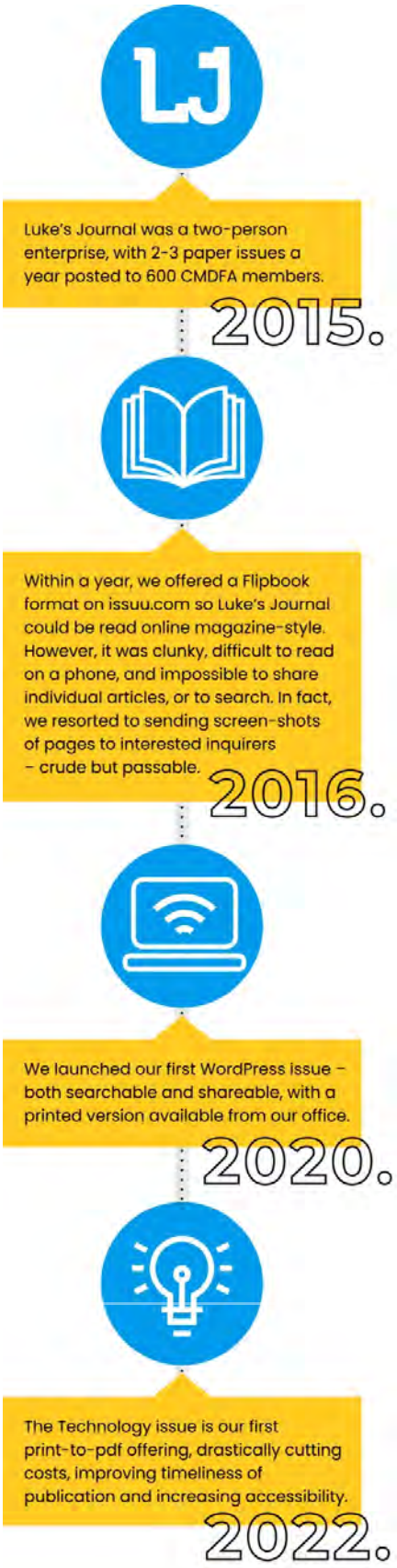
Tristan Harris (the Social Dilemma) proposes a solution: *"Embrace paleolithic emotions, upgrade medieval institutions, and apply wisdom to using god-like technology."*[2] His Centre for Humane Technology strives to protect human weakness rather than exploiting it. That wisdom is secular: respect human vulnerabilities, minimise harm, create shared understanding, support fairness and justice,

be conscious of our values and help people thrive. These noble values come from Judeo-Christian roots and reflect the character of God.

The Bible takes us further, *"The fear of the LORD is the beginning of wisdom, and knowledge of the Holy One is understanding."* (Prov 9:10 NIV).

**When we interact with our 'runaway technology', when we are tempted to think ourselves 'demi-gods', we do well to remember who we are in relation to the God revealed in the Bible – creatures, made in His incredible image, to rule the world under Him, in ways that reflect Him.**

## Luke's Journal too, has had a technological upgrade over the years:



The Journal's reach is worldwide (18,000 in Oz, but a further 3000 from the US, NZ, UK, Singapore, Ireland, Canada, Malaysia, China and South Africa!), with 4000+ readers a month, searchable, shareable, and showcased weekly on Facebook. It has a ten-strong editorial team, a bank of occasional proofreaders, and we are succession-planning for the long-term. I think you'll agree that we've come a long way. (If that excites you and you'd like to get involved, email lukesjournalcmdfa@gmail.com!)

In this issue of *Luke's Journal*, Dr John Goswell gives us a fascinating look into the history of technology as it relates to the Bible. Dr Ern Crocker and Prof John Whitehall share personal reflections in photos and words. Dr Paul Mercer and Dr Joseph Thomas delve into some of the negatives, and we hear how CMDFA members are connecting regularly for prayer, education, fundraising and fellowship via technology. Asher Morrison and Dr Alyssa Arnold share tips for adolescent screen-time and sleep, whilst Debbie Hopper gives ideas for stewarding your time with tech. All in all, well worth a sit-down with a cuppa to enjoy the benefits of technology at our fingertips!

Luke's Journal would like to acknowledge the tireless work of Ivan Smith of Communiqué Graphics, who has been with us since the very beginning, printsetting 61 issues of Luke's Journal over 25 years!
He has been ably followed by Peter Shirley who is our current web content manager.

## Dr Catherine Hollier

*Dr Catherine Hollier is a part-time GP in Newcastle who loves to encourage others to integrate faith and work, including the work of rest! She enjoys disseminating the wisdom of many CMDFA members through editing Luke's Journal.*

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"The Battle for Our Attention: Technology, Mindfulness, and the Future of Humanity" posted 23 April 2022, https://www.youtube.com/watch?v=y5rn1qp2aZc&ab_channel=Wisdom2.0

# Technology and the Bible – Dr John Goswell

## We remain oblivious to what the "next big thing" might be

*Photo Sixteen Miles Out – Unsplash*

**We live in a world of technology. To some, the word 'technology' conjures up exciting images of spacecraft and exploration. To others, the images are of quantum computing, the latest smartphone, or the frontiers of medicine.**

In our modern world we are never far from technology – take, for example, even the clothes that we wear. Technology has helped develop the finest breeds of sheep, the best cotton and synthetic fibres. The natural fibres were harvested with specialised machines and processed in modern factories. These fibres were dyed with highly refined dyes and woven in technologically-advanced mills. The fabrics produced were sewn with complex machines, transported in state-of-the-art trucks, and sold using computers. The money used had been printed with high-tech plastics and inks, with holograms etched using advanced lasers. We wash these clothes with specialised detergents in purpose-built machines and iron them with irons powered by electricity, itself brought to us because of numerous technological marvels. The machines used through these processes were made using other machines built with technologically-advanced materials. We take most of these technologies for granted.

*Photo NordWood Themes – Unsplash*

Advanced technology has meant different things at different times in history. For Adam, forced from the Garden of Eden and required to till the earth (Gen 3:23), a wooden plow drawn by a horse would have been advanced technology. Six generations later we have Jubal who made stringed instruments (Gen 4:21) and another generation later we have Tubal-Cain forging metal tools (Gen 4:22). Nine generations from Adam we find Noah building an enormous boat (Gen 6); one large enough to protect two or more of every kind of animal, plus enough food for a year. At Babel, civil engineering had advanced to the stage of creating a massive tower out of man-made bricks (Gen 11:3-5). By the time of Solomon, technology could create an enormous temple in Jerusalem, as well as ships to travel at least part-way around the world (1 Kings 10:22)[1].

The rate of increase in technological advancement is staggering. Whilst the bronze age spanned one-and-a-half to two millennia, the iron age lasted about half of that. Perhaps the next major breakthrough in material technology came with glass manufacturing in the 1300s, then steel from the 1800s. Plastics originated in the early 1900s. Now we can refine almost every element on the periodic table. The last two hundred years have seen the widespread use of electricity, the invention of the electric light bulb, X-ray machines, the production of cars, hydroelectricity, vaccinations, radio, photography, telephony, airplanes, movie projectors, reinforced concrete, typewriters, and internal combustion engines. The oldest in our society have seen the introduction of the electric refrigerator, antibiotics, television, integrated circuits, space exploration, nuclear power, LEDs, computers, most medicinal drugs, the mapping of

the human genome and the internet. This rapid increase in technology begs the question of whether we have the wisdom to use it for good. Unfortunately, there are many examples of how modern technology has been abused.

> *"The rapid increase in technology has led some people to ask whether this represents a fulfillment of Daniel's prophecy relating to end times: "But you, Daniel, roll up and seal the words of the scroll until the time of the end. Many will go here and there to increase knowledge." (Dan 12:4, NIV)."*

The rapid increase in technology has led some people to ask whether this represents a fulfillment of Daniel's prophecy relating to end times: *"But you, Daniel, roll up and seal the words of the scroll until the time of the end. Many will go here and there to increase knowledge."* (Dan 12:4, NIV). Can it continue to develop at such an escalating rate? Should it be allowed to do so, or should we pause and consider? After all, one can argue that technology is getting out of control. Five hundred years ago, most people could manage the high-tech of the day with a little education. Today, everyone is technologically challenged. No one person can master all the skills necessary for our society to run. Sure, one person might be able to design a program to monitor network security, but he/she will not also be able to fly a commercial jet or run a hydro-electric power station or engineer skyscrapers or implant a prosthetic tooth.

## Do we need technology?

The average Gen Z teenager would say so. A phone, for example, *must* have 5G, augmented reality, artificial intelligence, unlimited data, 4K graphics and sync with a smart/fitness watch, as well as smart devices at home. We all know that the worst punishment for a modern teenager is having the phone confiscated. But is this a "need" of technology, per se, or is this technology a tool primarily for communication and enabling relationships? Older generations, who grew up without mobile phones, might argue that we do not need technology to be happy, but would they go back to times without cars, electricity, and refrigerators? Certainly, the Amish have shown us that you can be happy without the latest and greatest technology.

## What did Jesus think about technology?

At first glance it might seem that Jesus did not use technology. Certainly, he did not use high-tech in any of his miracles, but Jesus was clearly happy using the technology of the day. He used boats and asked people to use nets. He read from parchment scrolls and asked people to fill wine jars with water. As a carpenter (Mark 6:3), Jesus would have used various tools in his work. It is perhaps ironic that the Greek word translated as carpenter, τέκτων (tekton), shares the same root word as the word technology. Jesus did not speak out against technology, but he did make it clear not to over-value it. When the disciples were admiring the temple in Jerusalem, Jesus was quick to show them that man's great technological achievement was only temporary: not one stone would remain standing upon another (Matt 24:1, Mark 13:1-8, Luke 21:5).

## Are we better off for all our technology?

Was life better for Adam and Eve before the Fall? After all, they had a simple, stress-free life in the garden of Eden. They walked closely with God, had food for the taking, and potentially had no death and no illness. As a result of the Fall, man has had to learn to live in a difficult environment. Over the millennia, with the development of technology, man has learned to change his environment to make life easier. In doing so, however, he has now come to the point that he has changed his environment so much that he must learn to cope with his creation! One only has to look at the stresses of living in an urban environment to realize that technology has not always been a panacea. So then, we must ask the question, "Is technology bad?" To answer that, we must be clear about what we mean by 'good' and 'bad', as everyone has their own idea of what these words mean. If we take the view that 'good' is that which aligns with God's will, then our measuring stick for judging technology is simple – it is good as long as we know it is aligning with God's will. Since our primary source of knowledge of God's will is the Bible, we then need to view technology from a Biblical perspective. This works when the matter is a simple one: for example, are antibiotics good? We would argue that, although God allows pneumonia in this fallen world, He does not want people to suffer and die prematurely. So, antibiotics that cure pneumonia must be good. But then what about the question of the atomic bomb that was dropped on Hiroshima. Was it good? Almost everyone would immediately say no, it was terribly bad: one of the worst things that the world has ever done. It caused extensive loss of life, massive destruction, and horrible suffering. Having said that, the bomb was dropped to stop the intolerable number of people being killed in the war and the extremely high numbers that estimates said would be lost with the planned invasion of Japan. It was instrumental in bringing World War II to an end. The moral judgement becomes less clear with such considerations.

One of the reasons that we tie ourselves up in knots with these types of arguments is that we try to attribute morality to objects. Objects are neither moral nor immoral, neither good nor bad. It is the way that we use them that matters. For example, would we call a hammer good? It can be used for many good things, but a hammer can also be used for harm. When we realize that a hammer is a tool, and that whether it is used for good or bad depends upon how it is used, we start to see that technology should likewise be viewed as a tool.

## How does technology relate to the Bible?

The first, and perhaps the most important, is the technology of writing. Whilst we might not think of writing as technology, at a minimum writing requires a medium and an instrument for marking that medium.

The Bible's first apparent use of this technology comes from when Moses formed the tablets for the rewriting of the ten commandments (Ex 34.1). They were hewn from stone and would have required some cutting tools.

*Papyrus Fragment – Bernard Grenfell*

Since then, the Bible has been written on media of increasing technology: papyrus[1], velum, paper, and now electronic media. The very oldest extant Biblical text, the Ketef Hinnon scrolls, dated to the seventh century BC, employed silver as the medium. Paper, which we use so indiscriminately today, has only been a commonly available commodity for a brief period in history. Only two hundred years ago, paper was still rare enough that the Medical Superintendent at Newcastle Hospital was unable to keep records of discharges and deaths because of lack of paper![2]

Up until the nineteenth century, papermaking was a slow process done by hand. Consequently, paper was expensive. In colonial times, sending a letter back home to England was an expensive matter, as much for the procurement of the paper as it was for the postal cost. One way around this was to write the first page, rotate it ninety degrees and write over the top and then repeat on the back. This enabled four pages to be written on a single sheet. Mass production of paper began in the 1870s and was the result of technology – using machines to pulp wood for the paper fibres. With this, the cost of paper fell. Technology brought increased quality and decreasing thickness to each page. The lectern-sized church Bible could be reduced to something smaller than pocket-size. This increased the portability of the Bible. Reduced cost meant that every home could have a Bible, and nowadays almost everyone can afford to have their own personal copy.

For most of its history, the Bible needed to be transcribed by hand: a slow, painstaking process, with potential for error. Johannes Gutenberg, in the mid-fifteenth century, is credited with the invention of the first mechanical press using removable metal type. One of his first productions was a Vulgate Bible, the so-called Gutenberg Bible.[2]

*Gutenberg Bible – NYC Wanderer (Kevin Eng)*

Existing copies of this Bible show that they were made with very high-quality printing. This printing process catapulted the number of books produced exponentially, even though the technology still required the books to be hand-bound. This was bypassed in the 1830s when mechanical bookbinding was introduced. In 1868, David McConnell Smyth patented his sewing machine for sewing book sections (called "signatures"), enabling a faster production of bound books. He went on to produce further machines to glue and trim books. In 1931, perfect binding was introduced for book production. This enabled rapid mass production of books at low cost. It is now possible to buy a new copy of the Bible for about the same price as a loaf of bread. By making Bibles affordable, technology has revolutionised access to the Bible. Six hundred years ago the priest was almost the only person to read the Bible. Now, anyone can own and read their own Bible.

Technology has also revolutionised the distribution of the Bible. Technologically advanced forms of transport, including trucks, ships, and planes, have enabled the distribution of the Bible to the four corners of the earth. Thanks to organizations such as Wycliffe, the Bible, in whole, or in part, has been translated into almost 3500 languages. This represents almost half the languages of the world and gives over seven billion people world-wide access to part or all of the scriptures.[3]

> *"Thanks to organizations such as Wycliffe, the Bible, in whole, or in part, has been translated into almost 3500 languages."*

But it has not stopped there. Technology means that the written word no longer needs to be in physical form. In the digital age, copies of the Bible can now be sent to tens of thousands of people in the time that it has taken you to read his sentence. Many millions of copies could be sent in the time that it takes to make a good cup of coffee, assuming that the sender has a sufficiently large database of email addresses. Certainly, anyone who wishes to read the Bible, if they have internet access, can download a copy for free. For example, according to bible.com over five hundred million copies of its Bible reading app have been downloaded[4]. This is nothing short of a revolution, courtesy of the technology of this information age.

## Can technology bring us closer to God?

No, not in itself. Despite the promise that technology brings, it does nothing to bring us closer to God. We will not find God using a spacecraft or a quantum supercomputer. Technology is just a tool. What it *can* do is make the Word of God more accessible. If more people can access the Word of God, then more people have the ability to learn about God and to turn to God. Things *have* changed. In the Apostle Paul's day, almost no-one could access scriptures relating to Jesus. As Paul said, *"How, then, can they call on the one they have not believed in? And how can they believe in the one of whom they have not heard? And how can they hear without someone preaching to them?"* (Rom 10:14 NIV). Nowadays it is possible for someone to learn about Jesus through reading the Bible and to call upon His name without ever having heard the word preached.

## Technology does help us link to others

Technology does help make the world a smaller place. The concept of a 'shrinking world' was used at a time when the facilitating technology was air travel. Now we have email and various forms of video linkups. Social media extends this further and makes it easy to stay connected with numerous friends and family members. This has never before seemed as important as it has been throughout the current COVID-19 pandemic, where social isolation has been a key threatening process. The availability of streamed church services has also helped keep churches together over this stressful time.

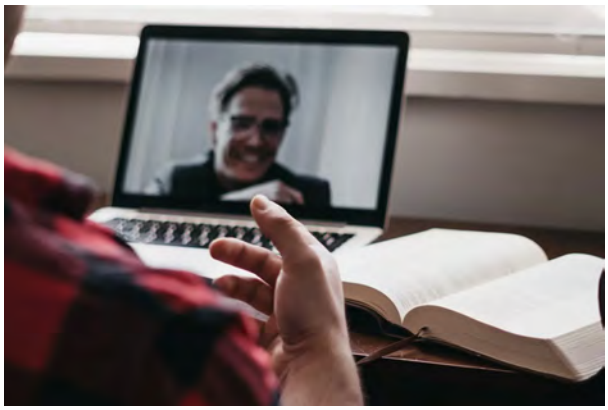

*Photo Dylan Ferreira – Unsplash*

## Can technology supplement the Bible?

Even though it comprises sixty-six books, and over 700,000 words (NIV), the Bible is relatively concise. However, there is much that modern day readers do not understand in terms of the geo-political background. Archaeology, even though it is a new science, has been gradually filling in some of the background. For example, Ex 13:17 says *"When Pharaoh let the people go, God did not lead them on the road through the Philistine country, though that was shorter. For God said, "If they face war, they might change their minds and return to Egypt."* Archaeology has shown that there was an Egyptian fortress on the northern (Philistine) route at Deir el-Balar. This suggests that God chose the southern route through the wilderness so that the Israelites would not have to face the well-fortified Egyptians in battle. Archaeology uses numerous forms of modern technology and has repeatedly provided evidence to demonstrate the historical accuracy of the Bible. This is helpful as a refutation to those who pronounce the Bible to be a compilation of fictional stories rather than being a reliable historical text. Examples include:

Some critics stated that Ophir (Kings 9, Isaiah 13) was mythological until in the 1940s a piece of ostracon was found at Tell Qasîle with the writing "gold of Ophir, from Beth-Horon, thirty shekels."[5]

Biblical minimalists denied David as an historical figure until in 1993 when a stele with an inscription mentioning the "house of David" was found at Tel Dan.[6]

It had been argued that Belshazzar (Daniel 5) never existed as a ruler in Babylon, as he did not appear on the king lists. Nabonidus was meant to have been the last ruler. However, a tablet was found which showed that Nabonidus was away for ten years, leaving his son, Belshazzar, to rule in his place.

In the nineteenth century it was widely considered that Moses could not have written the Pentateuch for the reason that writing had not been invented. Exodus 24 clearly states that Moses wrote what God said. Archaeology has since shown that writing was used well before Moses.

Perhaps one of the most dramatic examples of modern technology and the Bible is the use of micro-computer tomography to read ancient scrolls that are too brittle to unwrap. One example of this is the charred remains of a scroll found in an ark in the excavated remains of a synagogue at Ein Gedi. Dated at two thousand years old, the charred lump was 3D scanned and using a process called digital unwrapping, was "read" and shown to be a copy of the book, Leviticus. The importance of this find was that it showed the copy to be word-for-word exactly as modern copies.[7]

## Can technology assist the study of the Bible?

Absolutely. For personal study there are apps that will assist anyone who is keen to read and learn about the Bible. Such programs can help with explanatory notes, commentaries, personal note-taking and access to online learning programs. Examples include OliveTree[8], Accordance[9] and e-Sword.[10] Some, such as Logos[11], can include features to assist in sermon writing and yearly sermon planning. Online Bibles allow easy access to Bibles in numerous languages, interlinear translations, and concordances. A good example of this is Bible Hub.[12] The internet now facilitates courses to be run online for students wishing to learn about the Bible for personal study or to obtain certificates and/or degrees.

> *"For personal study there are apps that will assist anyone who is keen to read and learn about the Bible. Such programs can help with explanatory notes, commentaries, personal note-taking and access to online learning programs."*

Technology can certainly assist in studying the Bible. Let's assume for a moment that I would like to study the symbolic use of light in the Bible. In ten seconds, I can find 432 references by searching Strong's Concordance online. With another click I can find that the Hebrew word for light is אוֹר and it occurs 216 times. Seven of these occur in Genesis, one in Exodus, two in Judges, etc. I also find that there are numerous Greek words meaning light e.g., φῶς, φωτεινός φωτίζω, φέγγος, and φωστήρ, even excluding the words meaning light (not heavy) and light (a lamp). Each reference is shown with an excerpt of scripture that contains the word. Another click brings up the definitions from the ATS Bible Dictionary, Easton's Bible Dictionary, Webster's Revised Unabridged Dictionary, and the International Standard Bible Encyclopedia. Another click brings me a list of sermons on the subject. So, within minutes, technology has enabled me to access a vast array of information on the subject.

## So where will technology take us?

It is easy to envisage that most people will have at least one mobile device that would enable access to any Bible translation, replete with commentaries, explanatory notes, relevant pictures and links to archaeological evidence. That same device will enable electronic communication with anyone we choose and link to various forms of social networking. It might also provide church services and enable remote pastoral care. You may, like me, shudder at this last thought. Christianity is, after all, about relationships: our relationship with God and our relationship with one another. Technology is still a poor substitute for face-to-face caring and hopefully will never replace it. However, there are some situations, eg. where people live remotely or where pandemics prohibit face-to-face contact, where such technology is of great use.

Who knows what the future will bring? In the same way that no-one envisaged the internet forty years ago, we remain oblivious to what the "next big thing" might be. It will be up to us to ensure that current and future technologies are used as tools for good: for the advancement of God's kingdom.

**Dr John Goswell**

*Dr John Goswell is a solo GP in Lochinvar, NSW, having worked in the lower Hunter Valley for over 36 years. He has had an interest in using technology to help doctors including website development and running an internet mail group (24 years). He has a keen interest in understanding the Bible.*

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The word translated in this verse as *peacock* in the NIV is תֻּכִּיִּים (tokiyim). The singular form would be pronounced *took kee*. This is the same pronunciation as the Old Tamil word for peacock, used in Sri Lanka and southern India, so it would appear that Solomon's sailors used the local word for a bird that they did not know. Similarly, קוֹף (pronounced kophe) translated as *ape* is similar to the old Sri Lankan word *kapi*

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# Thinking Globally, Acting Locally: Responding to the Challenges of Technology – Dr Paul Mercer

## Our opportunity to reimagine faith

*Photo Anna Shvets, Pexels*

**In today's world, in almost any sphere of human endeavour, we encounter a science and technology world. This is very true of the current practice of medicine. Technique and technology have led to paradigm shifts in the management of most health care problems. Are we on a path of endless medical progress?**

One French geriatrician claims that with our current state of scientific awareness, there is a person alive today who will live up to 1,000 years! Are we wise to be so enthusiastic? Pope Francis has written, *"Technical products are not neutral, for they create a framework which ends up conditioning lifestyles and shaping social possibilities along the lines dictated by the interests of certain powerful groups. Decisions which may seem purely instrumental are, in reality, decisions about the kind of society we want to build."*[1]

In this paper I want to reflect on the rise and rise of technique and technology, and then discuss the good, the bad and the ugly associations. Throughout this piece I will seek to explore connections between faith and 'technique'. French scholar, lay theologian and pastor, Jacques Ellul has written widely and provocatively about technology. He defines technology through a broader term, 'technique', which he describes as *"the totality of methods rationally arrived at and having absolute efficiency (for a given stage of development) in every field of humanity"*.[2]

> *"...we have seen a 'transition from society relying primarily on the cultural approach to life, to societies relying primarily on the technical approach.'"*

Ellul sees technology as one of the branches of technique. He also argues that technique is the dominant factor, the determining factor, within our modern society. His thesis is that over the past 250 years, arising from the enlightenment and the industrial revolution, we have seen a *"transition from society relying primarily on the cultural approach to life, to societies relying primarily on the technical approach."*[3] We use terms like 'what the evidence says', 'how the data informs us' to describe our experience of such a world. The collective wisdom of life lived on the *"basis of tradition, of experience and culture handed down from generation to generation"* (ebid 2, p.93) makes way for a world objectified through science, data, and technique.

*Photo George Pak, Pexels*

At one level, this can be observed sometimes at a restaurant where everyone is looking at mobile phones rather than conversing over their meal. In medicine, ward rounds can become an evidence-based exercise with a bewildered sick person looking on. Ellul asserts that neither catholic or protestant Christianity have been prepared for such a change and indeed may be quite negatively impacted by the 'age of technique'. His argument goes on to suggest that *"technique reduces Christianity to the inner life, to spirituality, to public space for secularity and as desired private Christian faith."* (ebid2,p9).

In his work, Ellul draws out or highlights important consequences of living in the age of technique. I draw our attention to some of these:

In the milieux of techniques, we can recognise that *"people create and develop technique, and that technique simultaneously influences humanity"* (ebid2, pg XV Introduction). Human beings characteristically adapt to our environment and our adaptations to technology push us toward an objective, mechanistic understanding of self. Ellul argues that this neurobiological rewiring accelerates as *"technique takes on a measure of autonomy with respect to human life"* (p105).

Ellul recognises that technique is a 'power', *"covering the full range of human life"* (ebid2, p31). So we should not be surprised to recognise *"the expansion of technique to human groups, to human life, is one of the essential characteristics of our world"* (ebid2, p31). The apostle Paul helps Christians see that all 'powers' are ultimately under the authority of Christ.

Growth is a 'buzz' word for technological power. *"It is both economic and political"* (ebid2, p63). The link between technique and power is strong and as humans we 'lose' our power as individuals and local communities in order to control it. Bureaucrats and owners of capital ride the wave of the power/growth reality. This is despite, as Ellul notes, *"the great number of technical errors and technical misapplications which lead to nowhere"* (ebid2, p21).

For Ellul, the illusion of techniques is that *"nothing more valuable can be imagined"* and so now *"we are in the presence of the secular sacred world, with the ensuing difficulty of regulating and dominating the creations to which ultimate value has been assigned"* (pXVII). To me, the ideology of 'autonomy' has also been co-opted to this regulatory crusade.

The next conclusion is to accept that *"technique becomes our destiny, a kind of growing fate that takes over all human realities"* (ebid2, p 83). It is worth also noting that Ellul sees Christian religion falling into the clutches of technique and so losing its gospel calling to *"announce God's salvation"*. In the world of technique, we need a freedom that is given to us from outside this system.

Ethics are fundamentally changed in the self-evident world of technique. Ellul argues that technical specialists are objectively set at arm's length from their humanity. So, for specialists, experts, and power brokers, this objectification implies *"they neither know nor can take responsibility for the consequences of their decision-making because these fall mostly beyond their domains of competence"* (ebid2, p99).

The rise of artificial intelligence (AI) may challenge another of Ellul's observations that *"machine memory stores information already separated from any context in a manner unaffected by any previous or subsequent storing of information. It is contextless memory"* (ebid2, p113). In distinction to humans, *"it is not a question of mindlessly storing and retrieving facts but of mindfully living a life in the world"* (ebid2, p113). It can be true to conclude that the memory of technique can contribute to human alienation.

My final association is to recognise with Ellul that the hope we hold around technique, is in essence a 'religious' hope, whether it be *"unconditional admiration for the great works of technique (ie, internet) or in the potential for future developments and growth"* (ebid2, p81-82).

This thinking around 'technique' is more than awareness raising. Ellul sees faith as leading to a deeper understanding of our world that is willing to embrace critical reasoning and act for love as we find the world. He playfully chose the word 'mutant' to describe an alternate way to 'technique'. A 'mutant' is *"someone who can use techniques and at the same time not to be used by, assimilated by, or subordinated to them"* (ebid2, p66). People of faith, he argues, need to be discipled to both 'live-in-technique' and at the same time 'live-against-technique' (ebid2, p66). For people of faith, he concludes:

a. Christians should not reject technique (iconoclastic), but subject science and technique to the critique of Revelation.

b. Christians should be the bearers of hope, those who affirm the love of God in a world alienated and often overwhelmed by neuroses related to the technique.

c. With this courage to live, Christians are called on to be bearers of freedom, as we participate in Christ, and in the world (ebid2, p89-90).

## Clinical context

Against this broad canvas, I want to briefly explore the good, bad and ugly of technique and technology. The truth of Ellul's thesis accelerated for me two decades ago in a clinical context: I am a general practitioner and enjoyed intermittent encounters with an American male patient who had settled here with an Australian partner. Digital blood pressure measuring devices have streamlined the diagnosis and care of hypertension. As this condition became apparent, I initiated appropriate investigations including an echocardiogram. This excluded the serious outcome of ventricular wall hypertrophy. All other tests were normal, and his blood pressure was successfully controlled with a standard antihypertensive medication. My male patient became restless as he discovered a positive family history. He sought a specialist referral. I co-operated despite his excellent response to medication and lifestyle change. The specialist carefully reviewed this patient and then reinforced his care plan. Nevertheless, he remained restless and started the next consultation with the opening gambit, *"Doc when am I going to get the MRI? If I were in America, I would have had my MRI by now."* In the world of technique, people easily confuse ends and means.

*Photo Karolina Grabowska, Pexels*

Very recently, a competent GP registrar under my supervision became anxious and panicky when he discovered new onset atrial fibrillation in an elderly gentleman complaining of fatigue and shortness of breath. He loudly summoned reception staff to call an ambulance. Although this may have been an appropriate course of action, the panic of 'technical incompetence' so overwhelmed this young doctor that it alarmed this man and his family. A calm measured response would have retained a patient-centred, humane approach. This old man refused to see the young doctor again. This story also confirms the powerful hold of 'technique' over medical care.

## Technique and good technology

From preventive care guidelines to cardio-respiratory transplants, dermatoscopes to MRI scans, technology has benefited scores of individuals and populations with improved health outcomes. In the era of evidence-based medicine, our imaginations seem to be the only limit for the western health juggernaut. New techniques and products come online in breathtaking repetitions. The mastery of some technologies requires new specialisation within specialties, and then Artificial Intelligence (AI) poses a new ball game of functionality. Medical education now demands significant technological dexterity. Medical practice has been an inherently conservative venture. The mantra, "Do no harm," is a voice of caution. While Hippocrates is engaging in a merger with technique, some are asking, "Can healthcare catch up with technology?"[3]

The answer has an inevitability driver. Without the uptake of technologies *"no physician can be up-to-date to make informed decisions or be able to legally practice medicine."*[5] Regulators, decision-support technologies and consumer empowerment ("I've googled this, doctor") all underpin the Silicon Valley gold rush. Mesko has cleared some conceptual confusion by noting the difference between Health Information Technology (IT) and digital health (ebid5). The Medical Futurist Institute defines digital health as *"the cultural transformation of how descriptive technologies (computers, mobile phones, etc.) that provide digital and objective data accessible to both caregivers and patients leads to an equal-level doctor-patient relationship with shared decision-making and the democratisation of care"* (ebid5). The physician needs to be the master of new technologies with inherent software issues, power failures, virus corruption of data and interoperability deficiencies. Mesko suggests it is an IT health issue when we need to invoke "Gary" the IT techno. He describes the process of solving IT issues as applying "Gary's rule" to a technology context. I think I know "Gary" very well and most days he looks like my children and grandchildren!

> *"Evidence-based medicine seeks to apply science and its new techniques and technologies to every aspect of health care. It does this with the blessing of the health industry..."*

Evidence-based medicine seeks to apply science and its new techniques and technologies to every aspect of health care. It does this with the blessing of the health industry seeking to close gaps in treatment, improve efficiency and streamline cost. The huge profits of, say, Big Pharma, also suggest the driver of commercial growth.

Indeed, there is no reluctance to push down the health technology path with nanotechnology, gene therapy, gut biome therapy, 3D printing technology, block chain technology, AI, virtual technologies, etc, all surging to create new and better treatments and products

to sustain human health. It is difficult to estimate the value of all the emerging possibilities opened by technologies.[6-14]

## The 'bad' of technology

In a book published in March 2022, Nick Ripartrazone[15] tells the story of Marshall McLuhan, the electronic media guru. McLuhan, who converted to Christianity, is described as a "digital prophet" who foretells a "digital age full of blessings and sins". McLuhan, while optimistic, recognised dangers in the application of technology in mid-2021. At that time, a cartoon emerged of the horsemen of the apocalypse. A fifth horseman had joined the group of war, famine, pestilence, and death. "And who are you?" was the caption. "Misinformation" was the reply.

While COVID-19 has reduced a world chasing its technological tail to lockdown for a while, the emergence of dependable science has rapidly evolved to helpful vaccines, anti-COVID drugs and new intensive care technologies. I have found it very hopeful that intensivists from around the world have gathered weekly via Zoom (all praise to God for Zoom!) to share information and problem-solve for both advanced and low-income health environments. The partnership developed out of the Prince Charles Hospital research unit in Brisbane has been commerce-free and voluntary.

> *"At the same time, COVID-19 has also seen an explosion of fake health news, premature claims reaching to the White House itself and serious vaccine hesitancy, even amongst health professionals."*

At the same time, COVID-19 has also seen an explosion of fake health news, premature claims reaching to the White House itself and serious vaccine hesitancy, even amongst health professionals. The democratisation of health through the internet has inherent potential for 'cybermania' and other terrible health consequences. There are occasional glimmers of hope. Despite an anti-vaccination stance by Brazil's Christian president, that country has (after a slow start and high initial death rates) one of the highest percentage rates of vaccination coverage in the world. Brazil has a vaccine-literate community and has responded to an electronic media campaign from Public Health physicians.

While we almost implicitly trust science and its interpretation of data, there are serious challenges. Critical analysis suggests up to 80% of all scientific publications contain errors resulting from out and out fraud (think Wakefield and the false link made between autism and measles vaccination) and simple statistical errors. In addition, other reviewers have recognised that a similar figure of concern exists with exaggeration and sleight of hand in reporting of research findings. Professor Peter Gibson[16] (p16) issued a 'call to modesty' about medical research in 2018, when he identified the highly selective populations of randomised controlled trials (RCTs) as almost unrelated to everyday practice.

It seems the funding of university research budgets and the profits of health technology companies means we live with a bending of the truth. This lowers public confidence and puts lives at risk. Almost 23 years ago, I responded to an invitation for the launch of a novel calcium-channel-blocker anti-hypertensive. It was an extravagant affair with what seemed like most of Brisbane's physicians attending. A razzmataz blitz was aimed to convince us to be early adopters lest the world itself would end. Unbelievably, a volley of unsuspecting Australians died within the first week of its release to market. Promoters, regulators, scientists, and Big Pharma had egg on their faces. I no longer attend such "launches".

*Photo Polina Tankilevitch, Pexels*

The list of bad consequences is disturbingly long, even without exploring complementary medical approaches. Some examples are:

Women's health. The #BreakTheBias campaign highlights that *"women are dying because of the gender data gap in medicine – in medical research, in medical education, in medical practice – and it needs to be closed as a matter of urgency."*[17]

'High-wealth-exceptionalism'. Today's 2,750 world billionaires (and many others clutching at this goal) have mastered the avoidance of tax responsibilities in their countries of origin and have made an art form of plundering the wealth of the world's poorest and most

vulnerable populations. The unavailability of this wealth to deliver secure health for all is a heist on the world's poor. A few brave souls like Bill and Melinda Gates swim against the tide, but even this commitment is a charitable, rather than justice, approach. [18]

In the 1970s, British economist, EF Schumacher, coined the phrase 'appropriate technology'. This term alerts us to the necessity of the thoughtful application of technologies since (as this 2016 report notes) *"technology is cruelly polarized. The rich world enjoys more than its fair share (through mobile phone coverage). And, for the poor, the lack of technology is the defining feature of their poverty. The injustice is not an absence of technology, but the unfair exclusion of certain groups to access technology that already exists"*[19] (p11). Market forces alone are unlikely to solve this problem despite the possibility of technologies to contribute to a solution.[20]

IT waste – the global volume of digital waste increases by a third every two years. Much of this is dumped in low income countries. The lack of recycling of rare earth minerals and other materials is concerning.

Other negatives include clinician burnout, high costs of innovation, leverage of data and 'big data', negative mental health issues for children/adolescents, and so on.[21-26] You can add to this list with your own awareness.

## The ugly

It may be hard to draw a line between the bad and the ugly. I am simply attempting to alert our thinking to the possibility that some technology and its associated up-or-downstream issues are heavily negative, burdensome to health endeavours or simply evil. I will pose some such examples that fit the bill for ugly. Others may come to mind.

The commercialisation of tobacco sustained by marketing techniques casts a significant cloud over global health.

Environmental pollution. From poor mining practices; through to waste at multiple levels of production, distribution, and consumer use; to poorly regulated end-of-use waste products. Pollution impacts almost every ecosystem, every waterway.

The threat of nuclear accidents (Chernobyl, etc.) and war.

Online and poker machine gambling.

The gathering clouds of climate change can draw links to 'technique'. An example is fossil fuel technologies. These carbon energy sources are required to sustain the industrial/technology projects. Negative health outcomes are a looming problem associated with climate change. Green technology offers hope.

Online bullying/trolling leading to poor mental health.

Ready access to pornography and child pornography.

## Conclusion

"Technology won't solve anything if the human heart isn't moved."[27]

These words of Elan Young capture the essence of our journey with technology. Yes, current and emerging technologies offer wide hope for improved health outcomes. Yet, as we have seen under the tutelage of Jacques Ellul, the age of technique has entrapped human health in an imminent, lonely, objectified world. An unspoken casualty of this paradigm change is the therapeutic effect of a personal doctor. Objectified medical care cannot replace the value of presence of heartbeat.

> *"An unspoken casualty of this paradigm change is the therapeutic effect of a personal doctor. Objectified medical care cannot replace the value of presence of heartbeat."*

The narrative trajectory of the Bible includes an awareness of changing technology. A nation that starts out as wandering Arameans ends up building the city of Jerusalem, where the incarnate Son of God dies to establish a new global people of God. Eventually, as the New Jerusalem comes from heaven to the 'new earth', we discover the "kings of the earth will bring their glory into the city" (Revelation 21:24). Presumably this will include the best of new technologies.

Today in our 'technique milieux', Christians have an opportunity to reimagine faith, and to action the power of the Spirit in order to restore the hope of freedom for the human heart. Ellul suggests, *"Think globally and act locally,"* as we undertake this task. It can be overwhelming to see the big picture of technology, yet acting in our own context – our medical and dental practices and faith communities – will allow for the faithful capacity to carry out our calling.


## Dr Paul Mercer

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# Science and Technology: the New Gods in Prenatal Screening – Dr Joseph Thomas

## Safeguards to unfettered prenatal testing is necessary

*Photo Mart Productions, Pexels*

*"Look, there is one more baby inside!!!"*
**This was not an unusual way for many to diagnose twins about four decades ago.**

Babies stillborn with serious abnormalities, or dying soon after birth due to missed congenital abnormalities, was not unusual. The focus in most countries was on saving the mother's life. Averting maternal mortality and morbidity was urgent then and, although this is mostly assured now, reducing perinatal mortality to the lowest possible is now a priority[1]. The goal posts are rapidly changing – twins are diagnosed in early pregnancy and it is almost considered irresponsible if a baby is born without having genetic and phenotypic screening.

There is no doubt that the progress in science and technology has given us unprecedented opportunities in prenatal screening and diagnosis. Science and technology are a boon to mankind and, without a doubt, saves lives, eg. emergency atrial septostomy for babies born with transposition of the great arteries and intact septum (a cause for immediate death of the newborn if not prenatally diagnosed).[2] Most of us embrace science and technology without question – mobile phones, global positioning system (GPS) technology and air travel are a normal part of everyday life. Unfortunately, missile and drone warfare use the same technology to destroy lives.

> *"...while this information can be used for the beneficial treatment of the baby, it can also be used to make reproductive choices that may end in termination of the pregnancy."*

Similarly, none of us would have difficulty in accepting screening for antenatal abnormalities, especially the ones that cause perinatal mortality or severe morbidity in the child. However, while this information can be used for the beneficial treatment of the baby, it can also be used to make reproductive choices that may end in termination of the pregnancy.

### Screening for Normality

In the twentieth century, screening tests became tools to detect individuals with risk factors for specific conditions, which could then be diagnosed by further costly and invasive tests. There has been a proliferation of screening tests over the years. The World Health Organisation (WHO) has observed a trend towards screening for more conditions, and that *"many of these screening programmes are not based on available scientific evidence. Policy-makers, health professionals and the public are often unaware of the potential harm of screening and its cost and burden".*[3]

*Photo Ivanna Havryliuk, Pexels*

The notion of screening, not for specific conditions but for normality, is a shift that has occurred in the twenty-first century and is challenging. At the 18–20 week morphology scan we are not only looking for specific abnormalities but also looking for deviations from normality with the parents being reassured that "everything is normal" when this could be far from the truth. Parental and societal expectations place an enormous burden on health professionals to get it right every time. Many parents rightfully ask, "This is the 21st century, why do we not have the diagnosis or treatment for this condition?" On the one hand, screening individuals for recessive genetic conditions in high-risk groups is acceptable, on the other hand, screening the general population for hundreds of conditions is challenging and needs to be questioned.

## Reproductive Genetic Carrier Screening

Recessive carrier screening has come to the forefront with the statement from Rachel Casella:"Why did we not know that we were carriers for SMA (spinal muscular atrophy)?". This has resulted in 10,000 couples being tested (Mackenzie Mission) for the government to formulate a policy.[4] The Obstetric and Gynaecology college guidelines have already recommended that all couples should be offered recessive carrier screening before or during the first trimester of pregnancy for specific conditions, or for the expanded screening for hundreds of conditions[5]. The complex interplay between the knowledge of the carrier state, the guilt of having passed it on, or the blaming of parents for bestowing it, along with the ethical dilemmas for reproductive choice is still to be fully comprehended.[4] In addition to the college guidelines, it is likely that the Australian government will come out with a policy to implement this soon.

The triumvirate of ultrasound, fetal genome sequencing (non-invasively from maternal blood) and fetal magnetic resonance imaging (MRI) has armed us with powerful tools that were unthinkable in the last decade.

## Non-Invasive Prenatal Testing

Non-Invasive Prenatal Testing (NIPT) from 10 weeks of gestation was initially advertised as a screening test for Down Syndrome, but is now offering whole genome sequencing for a fraction of the cost that was originally priced for the common trisomies. Using different platforms, laboratories can either target multiple specific conditions or sequence the whole genome to a resolution of 5 to 7 MB, picking up significant large deletions or duplications in the genome.

Often in the absence of structural abnormalities in the fetus, this demands further testing of the parents or counselling about the significance of the findings. This test, which is now freely available (although not covered by Medicare rebate), has inadequate pre-test counselling, with some laboratories offering pre- and post-test genetic counselling as needed. It is only a question of time before the resolution improves with many variations of unknown significance being reported.[6] Moreover, if there are structural abnormalities, the testing is narrowed to check if this is genetic in nature. Many laboratories, both in Australia and overseas, offer sequencing of multiple gene panels with a turnaround time of only a few weeks.

> *"Projecting the knowledge that we have acquired from paediatric and adult populations backwards onto fetal medicine is fraught with danger."*

The area of prenatal genomic sequencing with the whole range of the variations is not fully understood. Projecting the knowledge that we have acquired from paediatric and adult populations backwards onto fetal medicine is fraught with danger. Testing in paediatric and adult populations is guided by clinical presentations. However, projecting the likely clinical consequences onto a fetus based on the findings of genomic sequencing is problematic. The time is not far off when we will be asked to test the fetus for functional disorders, including gene panels for autism spectrum disorders.[7]

In the absence of obvious structural abnormalities and our current inability to predict outcomes with certainty, it is not unreasonable to ask if this is not another form of screening for normality and not for specific conditions.

## Ultrasound Scans

The latest ultrasound machines have improved resolution and powerful computational ability to give us images of the embryo/ fetus and increase our diagnostic capabilities. The nuchal translucency (NT) scan at 11-13 weeks of gestation is now often called the early anatomy scan, with numerous articles detailing the structural anomalies/abnormalities that can be picked up at that early gestation.[8]

*Photo Mart Productions, Pexels*

The 20-week morphology scan is yet another routine scan where most abnormalities are expected to be picked up. Almost all the mothers I see voice their unspoken fear, "Is everything all right, Doctor?" I am still uncertain as to how best to answer this question. Most often I say that we have not been able to detect any obvious structural abnormality but that we are yet to devise a test that will assure us that "everything" is alright with the baby.[9] Again, it appears more that we are screening for normality and not for specific abnormalities at the scan.

## Fetal MRI

Fetal MRI has added an additional modality of imaging and has been made affordable with a Medicare rebate allowed for specific indications. Fetal MRI, especially of the fetal brain has added to the prenatal diagnostic capabilities and the ability to counsel parents about postnatal outcomes.[10] However, this has also brought about diagnostic and counselling dilemmas with findings of uncertain significance, particularly when they are isolated. We do not have sufficient information to be able to predict outcomes, and in fact the outcomes may be completely within normal limits. The screening for normality continues, with parents often left in the dilemma that arises from 'full disclosure' of the results: as the resolution of the images improve, we see more detail and any deviation from 'normality' is reported.

## Altar of Science and Technology

We worship at the altar of science and technology, our new gods. My concern is that we set ourselves up for failure with the inability to counsel parents adequately about the array of tests available, the varying sensitivities, specificities, and positive predictive value of the tests. The uncertainties that the results raise (even in situations where most of the results are normal) if a genetic variation of unknown significance is detected; or a gene that makes a child susceptible to a disorder; or an adult-onset gene with varying penetrance and expression; brings complexity to the situation. Attachment disorders and overprotective behaviour towards children born with abnormal test results have been described. However, the inability to cope with uncertainty sometimes moves parents towards a decision they would never have otherwise contemplated. In the prenatal context where the fetus is not attributed legal protection, the possibility of uncertainty resulting in the termination of pregnancy is real.

## Guard Rails Around Science and Technology

Screening for normality as a notion needs to be debated and challenged at various levels, whether it is in structural anatomy or in genomic sequencing. Testing for functional and behavioural disorders as well as adult-onset illnesses needs to be widely debated. Technological development, laboratories, shareholders, powerful lobbies, and patient autonomy will drive much of the decision-making, both in the choice of the tests requested and in the decisions made after the tests. Great responsibility rests on us as health professionals and on the policy-makers as to how science and technology are applied in the prenatal situation.

From the very beginning, it is recorded that we desired knowledge – to define good and evil and become like God (Gen 3:1-6).Given the creation mandate to *"be fruitful and increase in number, fill the earth and subdue it. Rule over the earth…"* (Gen 1:28) the right acquisition and proper use of knowledge is essential. Using science and technology as tools is part of the creativity bestowed on us at Creation, as beings made in the image of God (Gen 1:26-27).

Though some Christian groups may prohibit medical treatment and surgery, progress in health care is mostly accepted as part of the creation mandate and provision from God. However, we need to be aware that all of science and technology is also part of the fallen world and we will need discernment as to its use and application (Rom 8: 20-22).

The use of science and technology with the proliferation of screening tests, without the concomitant application of ethical and moral boundaries is irresponsible. Urgent safeguards to unfettered prenatal testing of both genomic and structural anatomy is necessary.


## Dr Joseph Thomas

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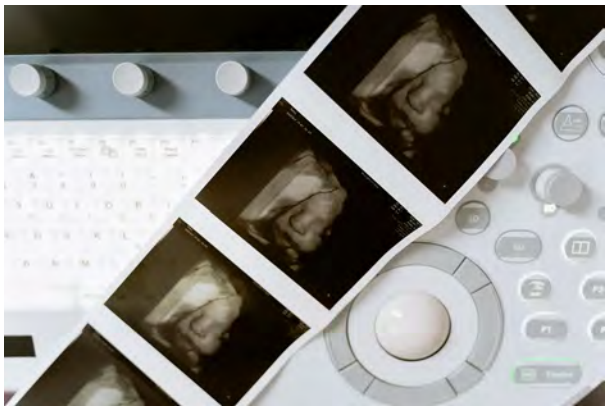
# Technology and Snakes – Professor John Whitehall

## The greater the advance, the more beautiful the snake appears

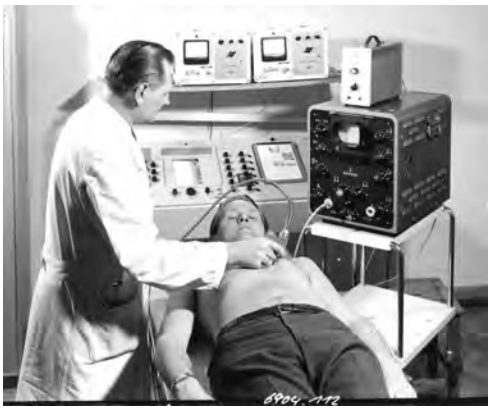


**The first ultrasound machine I ever met was a large, ugly, black metal box. It was energised through an electric cord to respond to sound (that had been channelled down another cord) from a hand-held sensor applied to various sides of the skulls of neonates reckoned to be suffering from subdural collections. The sound caused an arrow to move in a dial screwed onto the front.**

The sales representative declared deviation of the falx would be revealed by unequal movement of the arrow. He claimed that such a feat was, surely, an 'essential' (though admittedly costly) part of the armamentarium of all modern nurseries. No unit should be without it!

The problem was that ours was far from a modern unit, even though it served, with bravery, the demands of more than ten thousand in-house (and some external) deliveries from the African population in the middle of (what was then) a beleaguered Rhodesia.

Premature and sick newborns were housed in open wooden 'fruit box' cribs, warmed by heat from electric lights positioned below. Subdural collections were very rare, and were both diagnosed and treated by needling the lateral angles of the fontanelles. The black box would have slowly disintegrated in a store room. There was disdain at first sight – so much money for such pretension! I turned my back on ultrasound.



*1953 US-Echokardiographie. Copyright Siemens-Healthineers*

Several years later, I was obliged to return a horrified gaze. One morning, nearing delivery, my wife declared she could no longer feel the baby moving. In a hurry to check other babies in a nearby hospital, I listened with a stethoscope, fulsomely assuring both of us that I could hear normal sounds: there was absolutely nothing to worry about.

In the middle of the queue of normal babies with the insistent chorus of closing valves, reality finally overwhelmed: I had not heard a baby's sounds, merely those propagated from the mother's heart. I had known that all along, but had chosen delusion. I felt sick. An

ultrasound was performed and, in the darkness and silence of the room, a motionless heart was confirmed. Brighter, echodense walls of distended ventricles enclosed dark, unmoving blood. It was horror at second sight.

> *"An ultrasound was performed and, in the darkness and silence of the room, a motionless heart was confirmed. Brighter, echodense walls of distended ventricles enclosed dark, unmoving blood. It was horror at second sight."*

More years passed in subliminal rejection of the technology. Then, one day, in yet another country, I happened upon a cardiologist examining the heart of a child with then-modern equipment. It was love at third sight. The choreography, the precision, the discipline, the life, the colours, the potential for therapy were hypnotising. I felt I was looking upon the beauty of creation. Sadly, my wonder was tainted by a sense of indignation: "How come this technology had transformed in my absence?" I felt, however, a determination: I must learn this stuff!

## A course of re-engineering

Some months later, having embarked on the course of re-engineering myself into a neonatologist, I found opportunities to learn. The static brain of a newborn was not difficult to master, but the moving three dimensional heart was another matter. It was plain that I had little idea of normal anatomy, and none of the complex. Shown a specimen of a hypoplastic left heart with absent ascending aorta, I amused a pathologist with my ignorance. But with his kindness, I learned of complexities, and with the further kindness of a couple of cardiologists, I learned to recognise the patterns on the screen. Along the way, I was introduced to foetal physiology and imaging. I had never been more intellectually fulfilled.

Ultimately, becoming the Director of a neonatal service distant from a state's capital, I realised the fundamental value of ultrasound in caring for premature and sick babies: distinguishing cardiac from pulmonary causes of distress, defining congenital syndromes, and recognising the process of dying.

It was, however, obvious that we needed experienced opinion from expert centres in the capital. As telemedicine emerged, we wondered if it was technologically possible to not merely show videos of ultrasound images, but to actually project the images, live, 'down the line'. Therefore, in association with experts far and near, experiments in transmission were performed:

How many phone lines would be needed to convey the electronic information with such resolution that specialists could discern the structure and mechanics of the hearts and other organs of babies, within the uterus, not long after conception?

Could such telephonic equipment be installed in the wall beside the incubators of sick babies, so that an ultrasound machine could be 'plugged in', to interrogate organs without disturbing the sick baby, resting in an incubator?

In retrospect, it is surprising how quickly the challenges were solved. In regular foetal sessions, otherwise-unsuspected foetal abnormalities were diagnosed, permitting preparation for surgery soon after birth. Repair of such lesions as gastroschisis became routine, as were (though less common) those with herniation of diaphragms. Complex heart lesions were able to be diagnosed and transferred to the capital for repair while safely within the womb.

Ultrasound also permitted recognition of patterns of cardiac abnormalities in babies for whom retrieval teams had been dispatched to distant corners of the state. This recognition allowed diversion of the aircraft to the capital, minimising disturbance and delay.

*Photo Mart Production – Pexels*

## An intellectual Garden of Eden

In all, for me, ultrasound might be likened to a kind of intellectual Garden of Eden: a flourishing of the fruits of research, a panopoly of intellectual delights, enjoyment of the technology – it felt good to turn the thing on and display the images. There was certainly no 'sweat of the brow' in it! Its very spirit seemed to walk with us in the evening.

But, in that original Garden there were complications: A sanction against eating the fruit of a tree, even though it would appear to provide knowledge of the substance of good and evil and the ability to overcome the latter. Also, there was a snake who urged possession of those God-like facilities. Therein lies a problem of ultrasound: not in the detection of abnormality but in the judgement of what is good or bad about the findings, and what should be done to overcome apparent shortcomings.

Early in my training, I had observed a mother being advised that termination would not be inappropriate because of the cleft that had been detected in the lip of her child. The power of the black and white photographs of a gaping face overshadowed the assurance that surgery would leave but a minimal scar. The emotional burden became too great: termination ensued but, tragically, so did the burden. Many days of farewelling set in during which, I am certain, the poor mother barely noticed the cleft in her son's lip, clothed as he now was with knitted gown and lace edged bonnet against the cold of the refrigerator.

Even back then, at the flick of a probe, the difference between a male and female baby could be discerned and the latter programmed for termination. The 'progressive' difference now is that the termination can be undertaken until term.

## Pondering a great and wonderful mystery of life

Some of these experiences caused me to ponder a great and wonderful mystery of life: a veritable transformation from darkness to light. Technology is cold and dark – even the gel is cold; and the procedure is performed in darkness, where imagination grows and fears are confirmed by uni-dimensional, lifeless, black and white images. When the baby is born, however, and its squirming body is embraced in the transforming warmth and light of mother's love, everything seems transformed. To the four things that wise Solomon could not understand (Proverbs 30:18-19 ), I, as yet another perplexed male, must add a fifth!

*Photo Pavel Danilyuk – Pexels*

The temptation to feel assured of the ability to distinguish what is good or bad for a patient, or to submit to that judgement by others, slithers like the proverbial snake. The temptation to partake, one way or another, in decisions of life and death that are not our prerogative, whispers through much of our otherwise wondrous advances in technology. We can now deliver 'perfect' babies to desiring parents. We can change male children into non-physiological females and females into males. We can provide painless death on demand. And, on an even grander scale, we can blow people to bits with applied chemical and aeronautical science.

What is more, we can do these things with an 'elevated' conscience – justified by the utopian application of our new 'knowledge' of what is ultimate good or evil. In that sense, the snake is thriving in technology. You could even conclude: the greater the advance, the more beautiful the snake appears. The age-old story continues on.


### Professor John Whitehall

*John Whitehall is a Professor of Paediatrics who has worked in a number of countries in various positions. He developed some skill in ultrasound which was fundamental to his practice of neonatology in northern Australia, and still runs a 'screening' clinic of echocardiography in association with cardiologists.*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Proverbs 30:18-19 *"Three things are too wonderful for me; four I do not understand:the way of an eagle in the sky, the way of a serpent on a rock, the way of a ship on the high seas, and the way of a man with a virgin." ESV*

# Integrating Technology into Family Life – Asher Morrison

## How to integrate technology in a healthy and positive way


*Photo Prateek Katyal – Unsplash*

**Of all of the changes to the experience of childhood over the last couple of generations, arguably none have been as well documented and debated in psychology as the rapid increase in personal technology. For those who can remember, the childhood experiences of tyre swings and pushbikes seems a world away from today's childhood of personal phones, tablets and gaming devices.**

Our own feelings need to be recognised when we examine this issue. We need to be mindful of the impact of nostalgia when we compare the changes in our children's childhood experience to what we used to do when we were children. Often we look back on elements of our own childhood with the same soft, positive light as a polaroid photo – remembering only the positives of our experiences. However, even with the filter of nostalgia, there are more to our concerns regarding technology in childhood than a simple yearning for the 'good old days'. There is a growing body of evidence about the impact of unmitigated personal technology use in children.

### Concern for children

The concerns are broad. Concerns for children's physical health, concerns for children's social and emotional health, and concerns for children's cognitive health have all been raised and studied to various degrees.

In relation to physical health, the incessant activity of social media and gaming, coupled with the ease of accessibility to these activities through personal phones and devices, has been shown to have a significant, negative impact on sleep quality in children and teenagers.[1] In addition, the sedentary nature of technology use limits the amount of physical activity that would be typical for children.

Concerns at an emotional and social level are also common. The impact of social media in particular on self-esteem and peer relationships has been the focus of much attention.[2,3] Adolescence in particular, which was already known for its high rates of social anxiety (a completely normal developmental phenomenon), has seen an escalation in the rates and experience of anxiety in this age group.[2] Excessive gaming also appears to have a complicated relationship with aggressive behaviour.[4] On any given day, there will be a child at my clinic who is experiencing significant aggressive behaviour towards his device, siblings and parents, which is fuelled, in part, by long hours of playing violent video games.

> *"On any given day, there will be a child at my clinic who is experiencing significant aggressive behaviour towards his device, siblings and parents, which is fuelled, in part, by long hours of playing violent video games."*

The cognitive concerns are also there. Many experts are concerned around the *lack* of sustained attention that children (and adults) need to engage in today's technological world. In previous generations, children would have had to wait until mum and dad had finished watching the news before they could change the channel to watch cartoons. Now, limitless videos of increasingly short duration are available for children to scroll through. There is no waiting, or need for even mild amounts of effortful focus. Recent research suggests, too, that excessive screen time inhibits learning and increases the chance of premature cognitive decline.[5]

Clearly, our concerns for children in relation to personal technology are more than just a yearning for days gone by. So where do parents of the new technology generations go? How do we manage these challenges and recapture some of the best elements of childhood?

## Proactive parenting

As is often the case with parenting, a *proactive* rather than a reactive approach works best. As Christians, this is a principle with which we are familiar. Recalling the Apostle Paul's encouragement for us to *"not conform to the pattern of this world"*[6], we are reminded to live in a way that is *intentionally different* to the culture around us. This principle guides our parenting. Instead of coming from a position of what we *don't* want childhood to look like, it is much more helpful to come from a position of what we *do* want childhood to look like. Limit-setting and winding back technology use is even more difficult if there is no active alternative. As such, the first step for parents is to consider how they want family life to look and how technology fits within that.

An analogy that I often use in my practice is that of gardening (many a good analogy can be found in the garden!). It is one thing to pull out the weeds but another entirely to plant and cultivate what you grow in that space. Similarly, limit-setting is only semi-effective if we are not actively cultivating what we would like childhood and family life to look like. Without anything to grow in its place we are left with an abundance of weeds to constantly tear out.

> *"...limit-setting is only semi-effective if we are not actively cultivating what we would like childhood and family life to look like. Without anything to grow in its place we are left with an abundance of weeds to constantly tear out."*

Whether parents are currently or prospectively engaged in conflict over technology use at home, starting with what we feel is most important to family life and childhood is key to any behaviour change. I often encourage parents to take an inventory of what a typical week as a family looks like. Next, I encourage them to draft what an ideal week as a family *would* look like based on the core values of the family. From there we can begin to become more intentional with family life and work out how technology will fit in with this.

For instance, if time together over the dinner table is a core value, then setting limits about accessibility of technology at this time should follow, *and be modelled* by the parents. If playing together as a family on a daily basis is important then finding video games that encourage playing together could follow, while games that encourage solitary play would be discouraged. Similarly, if creating an environment where parents and children are interacting and comfortable around each other is important, limiting technology use to the central living spaces, and away from the bedroom, is important.

*Photo Jeff Sheldon – Unsplash*

Every family is going to have slightly different values that they hold as most important to family life. However, there is a lot of crossover and some values should probably be universal. Limiting exposure to harmful material, unhealthy and unsafe social interactions, and protecting sleep are consistent across every functional family. As such, some of the limits with technology that prohibit it being kept in bedrooms should be consistent in all homes, as should installing monitoring and limiting software on all devices in the home. Again, the Apostle Paul's exhortation in the letter to the church in Phillippi speaks clearly to these values when he writes: *"Whatever is pure, whatever is lovely, whatever is admirable—if anything is excellent or praiseworthy—think about such things."*[7]. There are plenty of video games, social media apps and videos that do not meet these criteria and should never be available to children, or adults for that matter!

I appreciate that limit-setting is a challenge for parents, particularly in the area of technology. Any discussion around integrating technology into family values is going to involve boundaries and limits. However, despite the urgency parents often feel, parents would do well to refrain from using a directive manner with boundary-setting when it comes to technology.

*Photo Mikhail Nilov – Pexels*

A collaborative approach where children are regularly given feedback on their responsibility and use of technology, and given the opportunity to ask questions of and give suggestions to parents, is recommended. This approach encourages children to see that parents are not simply there to be the "fun police" but to help children learn how to integrate technology into a healthy and productive life. It also provides an opportunity for parents to reward and provide further privileges for children who are managing technology use well.

It is possible for technology to enhance family life, but only if it is done intentionally and is led by the parents. The good old days of a childhood without personal technology are gone. However, there is no reason why our children's own childhood can't be just as good, even with a few more screens. Keeping our family values front and centre helps parents to stay consistent and create a home environment that integrates technology in a healthy and positive way.


## Asher Morrison

*Asher Morrison is a clinical psychologist who specialises in supporting children and their families. Asher believes firmly in the value of families as the key component of any community, and as a reflection of the nature of God. When not working with families, Asher is busy with four children of his own who bring him and his wife abundant joy.*


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Romans 12:2 – *"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."*

Phillippians 4:8 – *"Finally, brothers and sisters, whatever is true, whatever is noble, whatever is right, whatever is pure, whatever is lovely, whatever is admirable—if anything is excellent or praiseworthy—think about such things."*

# Scroll Less, Sleep More! – Dr Alyssa Arnold

## Your sleep quality not the best? Consider your sleep hygiene

*Photo by Sasha Levin, The News House.com*

**If you asked me what is one thing I could do to improve my godliness at this point in my life, I would probably say, "Sleep more." What?! Why would I say something like that? Is sleeping godly? What does the Bible say about sleep?**

Well, the Bible does mention sleep ninety times across both the Old and New Testaments: sometimes it is a reference to death, sometimes a sign that one trusts that God will keep one safe, and sometimes it is a sign of laziness. However, it is not one of the fruits of the Spirit, nor is it in the Beatitudes. Sleep is not even mentioned in the Ten Commandments. Perhaps 'rest' was, in regards to keeping the Sabbath day holy, but that is not specifically sleep. Jesus was reported to be asleep on a boat – does that make sleeping a godly activity?

Well. No. It is not a Christian command, nor a sign of godliness, to maintain an adequate amount of sleep. What I talk about is merely applying Christian principles to everyday life. I am sure that many of us can identify with the fact that inadequate sleep alters our mood. I know that when I have not had enough sleep, I am less capable of displaying the fruits of the Spirit – love, joy, peace, kindness, goodness, gentleness, self-control, faithfulness and particularly patience! This can be easily remedied by getting enough sleep the next night.

### What if inadequate sleep is a regular occurrence?

In a 2019 survey performed by the Sleep Health Foundation, as many as 40.4% of respondents reported symptoms consistent with a diagnosis of chronic insomnia disorder, defined as difficulty initiating sleep, maintaining sleep, or early morning waking > 3 nights per week. Having said that, of those with insomnia symptoms, 60% reported that they did not have adequate opportunity to sleep.[1] What does this mean? Why are we not having adequate opportunity to sleep and how is this leading to poor quality sleep?

*Photo Victoria Heath, Unsplash*

One of the possible answers is the impact that technology is having on our lives. Technology has brought us all sorts of incredible advances and changes to the way we live over the last one hundred years. We now have access to the world at our fingertips. We are able to work more, watch more, read more, and communicate far more than ever before! I was recently amazed by the fact that I could be on a videocall to a group of uni friends across the country, including a missionary friend in the middle of South Sudan, who, during

the wet season, is cut off from the world physically, but still is able to meet with us online for a chat. We are so advantaged compared with previous generations.

> *"Because we are online, we have access to more information, but our expectations are also higher."*

But with the advantages come some costs. Because we are online, we have access to more information, but our expectations are also higher. We might have access to our workplace computers from home, which makes life easier in many ways, but means that the lines between work and home can be blurred. We have smartphones, iPads and laptops which can be used anywhere and anytime, but can lead to countless hours on social media, gaming apps, and general mind-numbing scrolling instead of interacting with our families, peers and God.

## Technology even interferes with a very basic human function: sleep

Of those with insomnia from the Sleep Health Foundation survey, 40% were watching TV/social media/on the internet or working in the hour prior to going to sleep, all of which contribute to poor sleep hygiene and ultimately, poor quality sleep. But why do we paint such a negative picture of these technological resources? Patients often say that watching TV or YouTube helps them relax and get to sleep. In fact, I had a hard time convincing my electrician recently that I didn't want TV ports in any of the bedrooms when we were wiring our house.

The fact is that screens before sleep are actually scientifically proven to be unhelpful. We all have an internal body clock (circadian rhythm system) which is driven by several factors, one of which is the hormone melatonin. Melatonin is produced by the pineal gland in the brain and works to inhibit firing of the suprachiasmatic nucleus, found in the anterior hypothalamus, which is the central pacemaker responsible for the promotion of wakefulness.

*Photo Matheus Vinicius, Unsplash*

Light is the major external 'zeitgeber' or 'time cue' for the circadian rhythm system. In particular, light on the back of the retina actually provides a negative feedback loop for melatonin production. Melanopsin-containing retinal ganglion cells are the primary circadian photoreceptors that send information through projections to the suprachiasmatic nucleus, which in turn, inhibits production of melatonin by the pineal gland.[2] This means that light at the wrong time inhibits melatonin production, reducing the drive to sleep.

> *"This means that light at the wrong time inhibits melatonin production, reducing the drive to sleep."*

Therefore, whilst TV screens, phone screens, or computer/laptop screens might help soothe someone to sleep by, for example, distracting from worrying thoughts, the unseen negative is the significant reduction of the hormonal drive to sleep and impact on the body's natural circadian rhythm system. This leads to either decreased ability to get to sleep, decreased ability to stay asleep, or a combination of both. The advice from the Sleep Health Foundation is to avoid alerting activities such as watching TV, using the computer, or using your phone in the hour before you go to sleep.[3] They recommend doing other relaxing activities prior to sleep including having a warm bath, reading quietly, doing relaxation exercises or listening to music. There are an ever-increasing number of apps that help with relaxation, play quiet noises, or even audiobooks which can be useful (although try not to look at the screen too long whilst turning it on!). Maybe 'Hey Siri' in the bedroom is a better option!

> *"Maybe 'Hey Siri' in the bedroom is a better option!"*

So, how does technology interfere with godliness? There are probably many ways that we can think of, but this is one that is perhaps not immediately obvious. If your sleep quality is not the best, consider your sleep hygiene. Consider reducing your screen time before

sleep and giving yourself the best opportunity to have that glorious, restful, refreshing sleep so that you can be at your best during the day, clothed with the fruits of the spirit, and reflecting Christ in your home, your workplace and your church.


## Dr Alyssa Arnold

*Dr Alyssa Arnold is a respiratory and sleep physician in Newcastle, NSW. She is married to Tim and has 2 children. She attends Hunter Bible Church in Lambton.*


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# RESeT: Nurses and God-given Technology –Georgie Hoddle, RN

## From anxiety to creativity

*Photo Brenoanp, Pexels*

### Introduction

The moon was setting on Easter morning as the sun was rising. The earth's shadow was visible in the light of the dawn. Technology was not needed to embrace this scene. Turn 180 degrees, and four planets were observable with the naked eye. As the sun peeked from behind the hills, the glow of radiance was reflected off the gliding blades of the windmills perched proudly on the horizon. The sun had risen – no technology required.

The Bible has a lot to say about God's gift of tools with which we can work. He created us with abilities comprising music, art and design – this includes the development of technology, which in turn is a part of His own creation. It has enabled us to reach many more hundreds, thousands and millions of people with The Word. God commanded our ancestors to exercise dominion over the creation (Genesis 1:28), therefore it is our place to exercise dominion over computers. For His glory we are to use our intelligence and the technological advances that derive from it, with discernment.

### Technology in a nursing context

There is an ethical expectation that all nurses and other healthcare workers meet their professional standards with the appropriate use of technology. However, within the context of patient care, in which screens and devices are used so widely, this technology may interfere with the building of trust through digital relationships and create anxiety.[1-4]

Social media is another technology that has led to the downfall of some nurses in Australia through incorrect use[5]. However, if used wisely it can lead to relationship building instead of destruction. Meeting a Bruderhof Twitter user introduced me to this wise community (near Inverell, NSW) that makes full use of technology with a measured approach; wherein they leave all digital technology at the work site, enabling them to spend their free time serving, sharing and relationship building. As John Rhodes[6] says (p.243) *"It's vital to become technology's master and not its slave".* He goes on to say that, *"If a form of technology is proving deleterious to your relationships with others, you have to have the guts to drop it. Don't be afraid to walk away."*

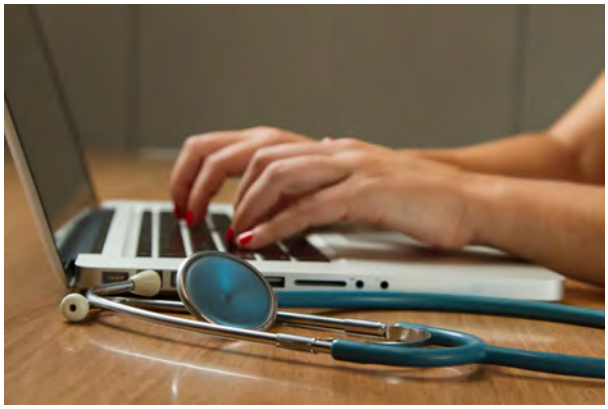

*Photo National Cancer Institute Unsplash*

We can apply this principle to nurses and other healthcare personnel who, if they work with all the faculties of their being, can work well with each other. I reflect back on the time of my new-grad year (2006): On a busy morning shift I found myself being reported for "spending too much time with the patients" and not enough time looking up and reading notes, blood results and other tasks that kept me away from the bedside. Although I was spending time listening to the patients' concerns and feelings (observing their position and movement in bed to better assess their source and level of pain), I quickly learnt that I needed to hone my time management skills to accomplish both tasks – the bedside care AND digital documentation – with competency.

## Digital advancements and nurses' anxiety

In 2005, Eley *et al*[1] conducted a national survey on the status of training and education in information and computer technology of Australian nurses. In2007, the Australian Nursing and Midwifery Federation Australia[2] produced a 127-page report on the use of technology in nursing. Over recent decades it has become evident that digital advancements in nursing (and now the COVID-19 pandemic) have seen the escalation of the use of information technology (IT) in hospitals and aged care facilities all over the world. Much of this progress is needs-based, but new trends, such as the use of artificial intelligence (AI) and predictive analytics in nursing, are emerging.[3,4]

But what if nurses are no longer able to keep up with, or are non-accepting of, technology – especially in healthcare settings where paperless bedside care and consultations are the norm, and nearly all documentation is digital? Although nurses have been cited as using technology to enhance patient-centred care (learning so much more about the patient from the immediate feedback that technology allows), many fear that computers will dehumanise patient care.[1,3] This was evident at a demonstration in Taiwan (2nd Asian Conference on Nurse Education, 2016) of a Japanese prototype robotic nurse who could deliver medications to a bed-bound patient. That same robot was programmed to tilt/turn the patient's bed every two hours for pressure area care. The robot was, however, non-verbal. This begs the following questions: Was the patient receiving care despite the lack of communication? What was their quality of life?

Back then, I had something to say about removing 'care' from our Australian Nursing Standards for Practice[7] and what that meant for hospital-trained nurses like myself. Had 'care' become a 'four-letter word'? Growing up in Sydney and attending St Luke's Hospital Nursing Training School in the 1960s, no one dared to use vocabulary designated as 'four-letter words'. These were considered vulgar, forbidden and certainly not heard on streets, television or radio as they are today. Has 'care' become a 'four-letter word' in modern-day health services? Currently, a nurse draws up a nursing 'plan of practice', no longer a nursing 'care plan', which (more often than not) is now a digital document.

> *"Currently, a nurse draws up a nursing 'plan of practice', no longer a nursing 'care plan', which (more often than not) is now a digital document."*

Gough *et al*[8] (2014) studied the many interconnections between new technologies, nurses' professionalism and practice as well as upskilling and adaptive processes contributing to patient care. It is important that nurses are involved in system design, which will then improve post-implementation satisfaction and thus create a positive, supportive atmosphere which is instrumental to sustainability.[1-4]

More recently, researchers at the University of Lausanne have demonstrated that nurses and midwives are being subjected to waves of pressure to perform and practise well, albeit with signs and symptoms of "psychological distress: insomnia, alcohol and/or drug misuse and symptoms of post-traumatic stress disorder (PTSD) such as feelings of anxiety, depression, burnout and even anger."[9] This, in part, is due to nursing through a pandemic, something very few nurses have been trained to do. We have had to rely on technology for so many aspects of care, along with meetings, training and patient communication.


Nurses have also had to forfeit breaks due to pressure to practice under more demanding conditions such as mask fit-testing and donning and doffing personal protective equipment (PPE).

The SafeWork Code of Practice[10] has been developed by a working group that included the NSW Nurses and Midwives Association. It outlines the need for nurse and practice managers to provide adequate breaks for their workers. There is a growing concern that nurses are subjected to even further harm from nursing in COVID-driven technological times. The revised International Council of Nurses (ICN) Code of Ethics[11] (2021) has responded with a call to protect nurses from psychosocial hazards which include moral distress. The long shifts and heavy workloads have been undermining the previous ICN Code of Ethics[12] (2012) [See insert-[2]].

People's fears need to be listened to, addressed and ameliorated before they cause harm, especially as nurses, midwives and other healthcare workers become distressed at not being equipped to provide adequate care for those they support. Value placed on nurses' and midwives' ethical stances can help direct their moral compass, supported by staff through pre- or post-shift briefings on how they are managing and feeling, along with any changes that can be made to improve their situation.

Spiritual well-being is another concept to be considered when dealing with stress related to a variety of issues, including the appropriate use of technology in the care of patients.[13,14] Nurses' Christian Fellowship Australia have responded to this need with the development of a new face-to-face course that invites all colleagues to share their real-world experiences in a safe forum – Spiritual Care for Australian Nurses (SCAN),[15] endorsed by the Australian College of Nursing in 2021. The discussions that ensue could contribute to shaping what politicians and public servants understand and then use to write legislation and supporting documentation, eg, Worksafe Australia Code of Practice. These are all steps in the right direction.


## RESET

The question to address now is how Australian nurses can adjust and reset their hearts and minds to form an understanding of the governance of mobile technology use for continuing professional development in our nursing contexts[16]. We can learn from Agnew[4], who brings to our attention the work of the British National Health Service (NHS) which recommends getting the basics right by explaining that "nurses will not embrace digital technology if they are struggling with outdated hardware and poor connectivity. Inadequate technology drives nurses back to using paper and duplicates work." (Queen's Nursing Institute [QNI], 2018; Clever Together, 2018, from Agnew)

Patients should also be involved in technological innovations and be part of risk assessment initiatives to ensure new services, such as video consultations, are suitable for them. Nurses may resist new ways of working if they suspect patients are unhappy, or there are adverse consequences. (QNI, 2018)

As Mather *et al*[14] (2019) stated, where feasible, new technologies for continuing professional development will enable staff to find more time to care with a person-centred model, thus enhancing therapeutic relationships with patients instead of creating barriers. `This could be achieved by appointing nurse leaders, such as chief nursing information officers, and digital champions who can work collaboratively with system developers and speak the same language as those of their nursing colleagues who may be less confident in the digital world (QNI, 2018).

*Reasonable rest from digital screens leads to the*
*Expectation that nurses and other healthcare professionals can meet their*
*Standards for practice and provide for*
*excellent patient care and*
*Therapeutic relationships that build Trust*

## Conclusion

It was not until I spent Easter with a Bruderhof community that I was able to finish this article. There, resting with the Risen Lord, I was reading from *"Another Life is Possible"*[6] that *"any use of technology that undermines the richness of human relationships must be presumed suspect, especially if it encourages passivity rather than creativity."* (p.242). That is why the use of social media is minimised in Bruderhof communities. Thankfully, I was able to reset my head, heart and spirit in one such community, and accept retirement as a new phase in my life – full of hope and with a desire to revive my creative skills.

Two of the nurses there have turned to producing graphic design. One of those explained how God led her away from nursing (where she was hands-on in the local hospital and nursing home communities) to redevelop her talents through technology. I found it ironic that I was able to reconcile ceasing my nursing work in an environment that saw me spending time with minimal use of technology. I felt free and able to build relationships by sharing meals and stories together with words and presence.

We have been blessed in these COVID times to be able to use digital technology for prayer and fellowship, but we know God has the ultimate code for life, that is love and His Word.


### Georgie Hoddle, RN

*Georgie Hoddle, a recently retired Registered Nurse, strives to work in Christ-centred initiatives. She regularly writes for Luke's Journal and the Nurses Christian Fellowship Australia's publication, Faith in Practice.*


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**Footnote: DISSEMINATION of the** *ICN Code of Ethics for Nurses (2021)*
To be effective the *ICN Code of Ethics for Nurses* must be familiar to nurses. We encourage its dissemination to schools of nursing, nurses in their workplace, the nursing press and other mass media. The *Code* should also be disseminated to other health professions, the general public, consumer and policy-making groups, human rights organisations and employers of nurses. National Nursing Associations are encouraged to adopt this *Code*, translating it into local language(s), or use it as a framework to support their own codes of nursing ethics.

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# Anecdotes from the Author – Georgie Hoddle, RN

## Stories from a life of nursing

*Photo Matthew Waring, Unsplash*

**Just when you thought you could draw breath and get some rest, life throws a new challenge at you.**

Having missed the deadline for the REST issue of Luke's Journal (blame having had COVID for that!), I put pen to paper to draft an article about nurses and other healthcare workers who are constantly faced with change and challenges. These challenges often require competent decision-making about patient care, which has become more and more based on technology. Here is one such example…

### From the orthopaedics and trauma ward

One day I went into work and the intravenous (IV) infusion pumps had been substituted with those from another company. The key pad was different, the line feed had a newer housing style that was not intuitive to open – "What do I press? Is there a code?" I was stressed since it was imperative for the intravenous (IV) antibiotics to go up. I had missed the in-service training for the new equipment since it had been held on my day off, and I didn't even know it was happening. Although I had been trying to get some rest, if I'd known, I would have been able to attend. Thankfully my colleague had been able to attend, and she checked the drugs at the patient's bedside with me. The device was reset accordingly, but the other nurse wasn't pleased at my lack of knowledge.

How many nurses does this anecdote resonate with? What stress levels do we have to reach before we realise we have to relinquish our practice and stop struggling with technological upskilling?

*Photo Matthew Waring, Unsplash*

### From the intensive care unit (ICU)

Shifts in ICU are mostly tech-driven and there are many screens and devices to monitor. The untangling of IV lines, drainage tubes and assisted breathing devices, etc, is considered a waste of time, as long as the labelled lines correspond to the drip bags and times and doses are correctly documented on the checklists. With this plethora of tangled lines, it is difficult to turn a patient from supine to prone, even with expert nurses watching carefully, so as not to cause obstruction or interference with the technology. Devices also

have to be repositioned for easy access and resetting after having been on pause or a fluid bag changed. Then it is time for blood gases again; thank God for that piece of technology which helps us monitor, assess the patient and take the right decision on further treatment.

The last straw for my stress levels was being denied access to the tea room as my 'casual' swipe card was not authorised at the ICU level. My colleagues were annoyed that I had to ask for access for two breaks during a twelve hour shift. Furthermore, access to the toilets was outside the locked double doors. Although asked, I never went back. It was too stressful!

## Ah, time to RESeT....

Now this technophobe nurse has finally stepped away from medical and nursing devices. She is investing prayerful time and energy to serving God by agreeing to reset her limited technoskills and striving to keep up through creative writing and book reviews. The encouragement from the Luke's Journal editors provides that motivation. Thank you, team.

## To finish

After spending  over eight years also working in aged care (both rural and in the city), in 2020 I threw in the technological towel when it comes to the field of e-learning for my profession. Much reliance is now placed on remote e-learning. For nurses, this has been frustrating since so many aspects of our hands-on work cannot be taught with a computer program. Many of the modules we have had to study and gain 100% 'competency' in are poorly designed, and contain punctuation and grammar errors which make them feel unprofessional.

> *"For nurses, this has been frustrating since so many aspects of our hands-on work cannot be taught with a computer program."*

As I have attained a Master degree in Applied Linguistics, this particularly irked me, and I sent feedback whenever it was asked for. Frustratingly, it appeared unheeded when the following year the same module was unchanged.  Questions with ambiguous wording only confuse and annoy.  Cartoon-like style sometimes feels childish and condescending.  Modules were not relevant to actual workplaces – an aged care nurse does not work in a factory lifting boxes – nurses have a "no lift" policy!  Frustration is heightened with the inevitable computer crash, and loss of the previous attempt. Arrrrrrrghhhh!

E-learning modules are considered cost-effective for 'training and testing' large numbers of staff, but I am unsure if they are effective ways to learn practical skills.  God wishes us to be competent and safe in our dealings with others, especially the elderly (1 Tim.4:1-4).

Maybe there is a place for technology in assessment, but certainly not in the practicality of caring. I trust that in the autumn of my years I can rely on caring relationships and kind hearts.

RESeT: Nurses and God-given technology – Georgie Hoddle, RN


**Georgie Hoddle, RN**

*Georgie Hoddle, a recently retired Registered Nurse, strives to work in Christ-centred initiatives. She regularly writes for Luke's Journal and the Nurses Christian Fellowship Australia's publication, Faith in Practice.*

# Stewarding your Time with Tech! – Deb Hopper OT

## Creating good online boundaries is essential

*Photo Luke Chesser, Unsplash*

**As Christians, we are called to steward all our resources well, including our time, money, energy, and priorities. We are to consider the brevity of life and be purposeful about how we spend each hour. This really helps to keep things in perspective!**

*"So, teach us to number our days that we may get a heart of wisdom."* (Psalm 90:12)

As a private occupational therapy (OT) practice, we serve by offering multiple programs and streams:

face-to-face therapy for local children and families,

clinical supervision of OTs,

online group mentorship mastermind programs, and

online training.

Keeping so many balls in the air means that we need to steward our time wisely. Technology enables us to plan our workflow from day to day, month to month, and maintain good accounting systems.

Technology allows us to *"Walk in wisdom toward outsiders, making the best use of the time."* (Colossians 4:5)

Without utilising these technological tools,

our impact on our clients would be curtailed,

we would not be able to run our variety of programs,

I would not turn up for the right client or the right Zoom call or group coaching call at the right time,

my team and I would not be able to coordinate and execute the vision and plan God has called us to do in business.

We are admonished to *"Look carefully, then, at how you walk, not as unwise but as wise, making the best use of the time".* (Ephesians 5:15).

"Look carefully" advises us to look around or research the app or program that works best for us; regularly review the features and costs of apps and subscriptions; upgrade features and subscription levels as our business grows to save time and energy; and be open to using new technology options. As much as we might love an app or program, we need to be ready to swap over when better programs are developed as an investment into our business and our stewardship of time.

Here are some pros and cons of using technology in providing healthcare both face-to-face and online.

## Pros

**Technology increases business mobility.** Using online and cloud-based solutions in business allows our team to be more mobile and flexible. An online clinical management system allows us to document and write notes at the home office, the clinic, or at a school after seeing a child. Notes can be typed; voice-to-text can be used while in transit between home-based sessions; or notes can be handwritten on an iPad in a handwriting-to-text converter app (eg. Nebo or Onenote) during a session to save time. Documents can be immediately saved to the cloud and backed up in case a device is lost, and my remote assistant ('virtual assistant' or 'VA'' in the industry) can access my clients' files and send out forms to sign using Adobe Sign without leaving her home-based office.

**Technology enlarges the scope for sourcing talent** for our remote team. Our team is spread across Australia and the world. This allows us to source subcontractors with specific skills that are necessary, and which may change from time to time as the business grows. My virtual office administrator lives in the same town as me and it's great having her close for informal team catch-ups over breakfast at the beach. We have OT coaches who live in other states, and have sourced other tech and design staff from the Philippines and Portugal. The Aussie narrator and illustrator for my kids' books lives in New Zealand.

How did we find these people without leaving home? Searching on service marketplace platforms, eg. Upwork and Fiverr, is a great place to start to build a team. Although it can be hit and miss sometimes, over time you can build a great team.

**Technology increases the level of efficiency and communication.** Efficiency in our business is coordinated through technology. Task management software has been evolving with us as our needs change. We started with the Todoist app, changed to Basecamp and I'm currently in love with ClickUp. At each stage, my needs as a manager and entrepreneur have changed, and now with ClickUp, we have better visibility over our business projects and are clear about who's doing what.

In bookkeeping, our Xero cloud-based accounting software has grown with us as we've transitioned from a sole trader to a company business model and it copes well with accepting both Australian and overseas currencies. For receiving payments, the team can set up automatic payments with Stripe for online sales or online memberships, and after consultations, our GoCardless mandates allow NDIS self-managed clients to have 7 days to pay, or it's direct debited on day 7, again saving time for us and our clients.

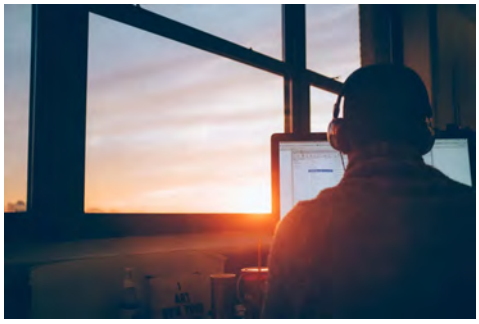

*Photo Simon Abrams, Unsplash*

## Cons

**It can mean hiring new specialists.** Introducing new technology means that we're probably not the best person to make it all happen behind the scenes. This is a skill, and it takes wisdom to know when it's fun and okay to potter around, or when it is better to just pay someone to "make it happen." Again, there are many options for doing this, including posting a job on Upwork or similar online service marketplace.

**There are ongoing costs.** Looking at a business, it is easier to calculate dollars coming in but more difficult to estimate behind-the-scenes costs. Most technology these days is well worth the expense, but it pays to examine the costs. Accounting systems, online storage (eg. Google Drive), monthly web-hosting fees, and Stripe or Paypal payment gateways all add up. Other costs can include paying staff to make the tech connections and integrations using technology such as Zapier behind the scenes (including setting it up and then maintaining it when it "breaks").

Being a steward is not just embracing these technologies, but also includes creating a note in your task management system (eg. ClickUp or Asana) every 6 months to review each app or programme's function AND cost.

**Security needs to be monitored.** When you use online cloud-based solutions and other people are accessing your programs, you need good security in place. As a wise steward, you need to ask yourself some questions about your security needs. For example, should you upgrade your package (and increase your costs) to allow team members to have their own logins? This is particularly important when using Xero to track the invoices generated. In other cases, it might be appropriate to use LastPass, where you can safely share your password (with or without team members seeing it). Less critical sites might be fine using this solution, whereas a program such as Xero warrants the extra cost from a security perspective.

Technology is indispensable in business and life these days, but as with most things, we need to steward our time and priorities. The challenge for us all is how we can use technology to make wise time-use choices for the mission that God has placed on our particular heart, and the job he has for us alone? What technology can you implement to leverage your time?

And finally, what technology is distracting you from other things of greater value – not only fulfilling your God-given work task, but your God-given family task? Creating good boundaries around the time we spend online is essential – looking at emails or social media is definitely a temptation and can be as addictive for us as it is for children. Technology is a god-given tool, but beware making it a god in itself.


## Deb Hopper

*Deb Hopper is an Occupational Therapist,* Author, Mentor and Business Owner. *As a Paediatric OT, it's Deb's ambition to change the conversation about what a "difficult" child looks like and bring back the joy of parenting. She works with OTs, parents and educators to make sense of kids' behaviour by providing easy-to-implement, hands-on strategies to transform struggling families and kids' lives so they can thrive. www.lifeskills4kids.com.au*

# Membership in the Digital Age – Dr James Yun

## Transformed by Christ, Transforming Healthcare

*Photo by Cottonbro, Pexels*

Over the last two years, the CMDFA Board has engaged Dunham+Company, a professional marketing and fundraising company, to run an effective social media campaign. Our two main objectives were:

to increase our support and membership basis

to speak as a Christian voice in healthcare matters

Utilising digital technology (specifically the Facebook algorithm) proved to be highly effective in achieving the latter. Within six months of launching the social media campaign, over 100,000 people have seen our Facebook ads, and over 760 potential membership leads were generated.

Likewise, within six months of launching the Luke's Journal Facebook campaign, we were able to reach almost 70,000 individuals with several topical Luke's Journal articles, with over 6,000 links to the articles having been clicked. Likewise, the anti-euthanasia campaign and the COVID-19 vaccine video have generated a large number of reaches and views. I was much involved with the latter, and this was a very humbling and rewarding experience for me; praise God for all the good that came out of it.

All the above points to the fact that without the wonder of digital technology (available to us at our fingertips) it would not have been possible to speak our Christian voices in healthcare matters with speed and efficiency. Despite all its accompanying drawbacks, digital technology is a fantastic tool that can be used for His glory.

HOWEVER, the social media campaign was unsuccessful in increasing our membership base. Despite over 760 potential membership leads, only a handful became members. If they become disengaged, the renewal rate will likely be dismal.

We currently have around 470 paid members with just over 50% regular (basic) members, ie. those who pay a full-membership fee. The student numbers (free registration) have dwindled in the last two years to around 120, likely due to COVID, but only as recently as 2019, we had 283 student members.

> *"... one could estimate that there are well over 8,000 Christian doctors in Australia. This means less than 6% of Christian doctors in Australia are CMDFA members."*

Putting CMDFA membership in context; in 2020, there were more than 104,000 medical practitioners in Australia.[1] Assuming 8% as a ballpark figure for active Christians (whatever that means!) based on the data that approximately 8% of the population regularly attended church in Australia in 2013,[2] one could estimate that there are well over 8,000 Christian doctors in Australia. This means less than 6% of Christian doctors in Australia are CMDFA members.

As recently as 2019, less than 10% of graduating student members elected to become financial members. In addition, a high number of lapsed members is a yearly issue. Likewise, we only have around 30 dentist members, compared to over 16,000 dentists in Australia (less than 1.25% of Christian dentists in Australia are CMDFA members).

The above statistics have not changed for at least a decade. I believe these are conservative estimates as I have added retired CMDFA members in the calculation, and I may have underestimated the percentage of Christian doctors. I am sure most Christian doctors and

dentists you know are not involved with CMDFA.


*Photo by PNW Production, Pexels*

## So why should a Christian doctor or dentist join CMDFA?

In some ways, this is a fundamental question, since "*Why would one pay an annual membership fee when there is no apparent benefit?*" Virtually all our resources are available to members and non-members alike, and with the digitalisation of Luke's Journal, members do not have any substantial advantages over non-members. One does not need to join CMDFA to have fellowship with other Christian health professionals. Many hospital or regional Christian medical fellowships, or prayer groups have been organised independently of CMDFA. For most junior medical doctors who are too busy, the burden of membership fees when there is no apparent benefit needs serious justification.

To put it bluntly, there is *'nothing in it'* for many Christian doctors and dentists. Many former and current State committees and Board members have sought to tackle this dilemma. I am aware of various proposals, ranging from free membership to limiting available resources to non-members. I am not suggesting that we measure 'success' with numbers, but the harsh reality is that we have not solved this dilemma if we simply use membership numbers as a key performance indicator.

One of the things I love about the way Jesus interacts with people is His ability to bring clarity to tricky questions by asking questions that really matter. Could it be that *'Why should a Christian doctor/dentist join CMDFA?'* is the wrong question? After all, we do not expect to personally get anything out of supporting a cross-cultural Christian ministry. Likewise, we do not help marginalised Christian brothers and sisters overseas for personal gain. Yet, we give because the Lord loves cheerful givers *(2 Corinthians 9:7)*. So perhaps the better questions are, *'What is God's plan for CMDFA?'* and *'Is He calling me to support its ministry?'*

With that in mind, I would like to explore the following points:

CMDFA has a unique role to play in God's kingdom

Administration is a ministry

The membership fee is part of Christian giving

## CMDFA has a unique role to play in God's kingdom

While there are other Christian fellowships for health care workers, I believe CMDFA is the only national and non-denominational Christian association that represents *specifically* medical practitioners and dentists in Australia. Without going into the advantages and disadvantages of this 'narrow' focus, I would suggest that it provides us with unique opportunities and responsibilities to be salt and light in the world.

> *"To put it differently, if CMDFA did not exist, would that change anything? I believe that it would."*

To put it differently, if CMDFA did not exist, would that change anything? I believe that it would. Firstly, conferences, student meetings, and state meetings will be challenging to continue long term. Currently, the majority of our meetings are organised by volunteers with varying levels of administrative support from the National Office. However, organising a national conference for hundreds to attend is extremely difficult without dedicated administrative support. This invariably involves large numbers of transactions, and it would not be wise for individuals to handle this without an organisational structure. We also need to consider maintaining corporate knowledge, liabilities, insurance, governance, etc, and these are extremely difficult to continue without an organisation.

> *"Secondly, as society becomes increasingly hostile to Christian values, having a unified Christian voice becomes more crucial. It is challenging to have a unified voice when there is no organisation that represents Christian doctors and dentists."*

Secondly, as society becomes increasingly hostile to Christian values, having a unified Christian voice becomes more crucial. It is challenging to have a unified voice when there is no organisation that represents Christian doctors and dentists. This was acutely highlighted in the recent engagement of CMDFA in advocacy.

If CMDFA did not exist, it would not be possible to engage in important ethical issues as a united group of Christian health professionals. For example, it is one thing for Professor John Whitehall to discuss the issue of gender dysphoria as an individual and quite another for him to represent a view to the public with the support of CMDFA. The latter is more complex in many aspects, but carries more weight and is harder to dismiss. Indeed, the success of our social media campaign in putting our messages in the public arena argues for the existence of CMDFA.

It is common for a graduate to relocate multiple times, especially during the training period. In that setting, networking for fellowship is an important ministry that CMDFA can provide and develop further. A Christian doctor/dentist who is new to a region or health service may seek other Christian colleagues for fellowship. Of course, the Lord can move in mysterious ways to bring His children together, but I believe the Lord will use CMDFA to bring His people together at the workplace if we step up to the task.

It is true that many regional and hospital fellowships exist independently of CMDFA. We should praise God that He has raised workers into the field. In some ways, this provides us with exciting opportunities to partner and work together to establish more vibrant hospital, local and regional fellowships.

The weekly Friday night Zoom prayer meeting is another example. The prayer meeting could have been organised independently of CMDFA, but by having an organisation support it and by utilising the existing email network, it can reach further and be more effective. As a result, we see amazing answers to prayers.

> *"... the vision of CMDFA, 'Transformed by Christ, Transforming Healthcare,' captures God's desire for Christian doctors and dentists well. If this statement resonates with you, then why would you not support CMDFA?"*

I believe that the vision of CMDFA, *'Transformed by Christ, Transforming Healthcare,'* captures God's desire for Christian doctors and dentists well. If this statement resonates with you, then why would you not support CMDFA?

If you think that we are not doing this well, and you may be right, I would like to gently suggest that we need more workers alongside us to achieve this.

*Photo by Athena, Pexels*

## administration is a ministry

If we want to have an organisation that represents Christian doctors and dentists in Australia effectively, it would not be possible without administrative support. It would be like running a busy medical practice without administrative staff. It could be done, but it would be highly inefficient and probably would not last long. Similarly, it would be like having a church with hundreds of members without any administrative staff. Again, it could be done, but it would be chaotic.

At the same time, I can understand that 'high' overhead costs have been a sticking point for many members over the years. When I say 'high', I do not mean an absolute dollar figure, but I mean a proportion of the generated revenue. Currently, administrative costs account for 60-70% of revenue, depending on how it is calculated. Whilst this is not ideal, it is not surprising given our annual turnover is smaller than a typical medical practice.

To draw an analogy, if your practice has unacceptably high administrative costs, how would you resolve this?

One option would be to close the business. However, we have already established that CMDFA has a unique role to play.

Another option would be to cut the overhead costs by reducing administrative staff. However, just as running a practice without an administrative staff is extremely inefficient, running CMDFA without dedicated administrative support is unsustainable. The Board has sought to reduce overhead costs over the years, and there is a little room to reduce overheads further without compromising the function of the office.

This leaves only the final option: we need to increase capacity and generate more revenue so that work can continue and flourish. I suspect this is what you would do in your practice if you faced the same problem.

Some have suggested that we focus on spending money on ministry rather than on administration. Ministry can be loosely defined, but I feel that the underlying assumption in this view is that ministries such as mentoring and teaching are essential, whereas administration is dispensable. However, it is interesting to note that 'administrating' is one of the gifts outlined in 1 Corinthians 12:28. Furthermore, *'just as a body, though one, has many parts, but all its many parts form one body,' (1 Corinthians 12:12)* it makes sense to see administration as an important ministry. Actually, we need to see administration as not *just* an important ministry, but an *essential* ministry for CMDFA, given the nature of our organisation. Indeed, we already know that administrative staff are essential to providing a clinical service, and likewise for CMDFA.

## The membership fee is part of Christian giving

If we establish that CMDFA has a unique role to play in God's plan for the world and that administration is a vital ministry for CMDFA, then it logically follows that we need to support it financially for it to flourish. From this standpoint, I would reason that we need to start seeing the membership fee as a way of supporting CMDFA, ie, as a part of Christian offering or giving. While this sounds obvious, it is somewhat counter-intuitive as one generally becomes a member of an organisation for some personal benefit. This may be why the question, *'Why should I join CMDFA?'* is so natural. However, if we start seeing the membership fee as 'giving' and becoming a member as 'supporting', which it is, then we start shifting the focus from ourselves to God. We call it a 'membership fee' as this is written into our constitution, but we need to look beyond the 'label' and see it as giving.

As discussed above, CMDFA already allows access to most of the resources whether you are a member or not. Therefore, it makes sense to see the membership fee as giving since there is little personal gain. It follows that becoming a member is just as relevant for those who are too time-poor to attend an event or be involved in person – even if you cannot attend you can still support the ministry financially by becoming a member.

> *"... if you would like to support the ministry by becoming a member but have financial difficulties, I would urge you to get in touch with the office to discuss this."*

Conversely, if you would like to support the ministry by becoming a member but have financial difficulties, I would urge you to get in touch with the office to discuss this. I was graciously given a 'free' membership when I was overseas doing a PhD.

For those of you who are existing members, thank you for supporting the ministry of CMDFA and partnering with us. For those of you who are currently not members, I would gently ask you to consider supporting the ministry of CMDFA for the above reasons.

The high number of lapsed members is an ongoing issue. We tried recently to find out the reason for the lapse in membership with an online survey; despondently, our response rate was zero. Although we are all busy, and membership renewal is not the highest priority, prompt renewal is also a gift of 'time' for the administrative staff!

We have wonderful gospel opportunities with the digital technologies readily available to us. We can literally reach hundreds of thousands. This is an insurmountable task for an individual. Therefore, if we remain isolated and focus only on keeping our own candles alight, as important as it is, we risk becoming irrelevant.

**Perhaps the solution to the membership dilemma in the digital age is not in membership; it is in seeing that CMDFA has a unique ministry for a time such as this and seeing that you can generously partner with us by becoming a member.**

Hopefully, by God's grace, we will bring our lights together to start a fire in the healthcare field that can be seen from miles away.

## Dr James Yun

*Dr James Yun is a Christian clinical immunologist based in Sydney, NSW. He is currently on the CMDFA National Board as a treasurer and would love to see CMDFA helping other Christian doctors and dentists to be better salt and light in healthcare.*

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# Hidden Blessings – Dr Shaddy Hanna

## COVID-19 has dramatically changed social norms

**COVID-19 has changed the social norms of our society dramatically in the last two years. Some of those changes are here to stay – for better… or for worse.**

There is one domain where change has significantly enriched our Christian outreach, and that is the availability, accessibility, and acceptance of the "online conference" format. In no other domain has the pandemic made a change that has had both the potential to edify and equip current Christians, and uniquely reach a larger audience of non-Christians, expanding the influence and impact of the church in this modern era.

### The shift

With the advent of the pandemic, over the past two years many conferences have been (naturally) held online. We saw this transition to online delivery with academic courses, organisations, churches, and even our CMDFA events. It looks like many of these changes are here to stay, even with the removal of lockdown restrictions and the re-opening of communities. Why is this the case? What are the unique strengths of the online conferences that have led to this adaptation? And how can we circumvent the glaring weaknesses of this format as well?

These are some of the questions I hope to address in this brief reflective article. My experience comes as a learner, both as an attendee and an organiser for various Christian conferences over these past years. These reflections are mostly coloured by the CMDFA Intern Bootcamp held in January 2022, which I was able to help organise with a wonderful team of godly men and women from CMDFA: Dr. Phyllis Tay, Dr. Mellisa Soesanto, Dr. Theophila Hayes, Dr. David Chanmugam, and Dr. Kristen Piper.

### The good

**Reaching and gathering**

The first obvious benefit of online conferences is the ability to reach those who might have been hindered from attending face-to-face conferences due to geographic or physical barriers.

At our most recent Intern Bootcamp, we had initially planned to meet face-to-face. When the COVID-19 situation began to escalate (again), we decided to transition to an online medium. At this point, we had 8 registrations. A few days later, after transitioning to an online conference, we received 34 registrations. Many of these new registrations came from members who were living rurally or interstate. By transitioning online, it became a wonderful opportunity for Christians in Sydney to connect with brothers and sisters who might not have otherwise engaged in the face-to-face conference and training due to geographical restraints. Thus, larger communities of people who would not naturally find themselves able to fellowship together, were gathered to be encouraged and connected – a special picture of the wider church uniting via Zoom.

Beyond this, online conferences also allow for seamless recording features that can potentiate the distribution of these resources even further, permeating not only physical barriers of space but also *time*, to bless even future generations.

**Bridging costs**

The second benefit is that online conferences are cheaper to run! Not only financially, but also, in terms of time and commitment. Most people within our fellowship are healthcare professionals that are already overworked in their occupational settings, committed to ministry needs within their local and parachurch settings, and burdened with other 'life commitments'! For the modern overworked, over-committed, and overburdened healthcare professional, online conferences help bridge this gap by reducing time, financial, and commitment costs.

> *"For the modern overworked, over-committed, and overburdened healthcare professional, online conferences help bridge this gap by reducing time, financial, and commitment costs."*

Online attendees might save a minimum of one or two hours spent in commute by eliminating physical travel to the venue. Financial costs can be next to none for most online conferences, with the major costs of venue hire and food stripped back. Finally, commitment cost is also greatly reduced. For attendees who are only free for a few hours of the day, there is much greater flexibility and accessibility in being able to commit to only the part of the conference that suits their availability.

## The not so good

Online conferences do, however, have their fair share of drawbacks that need to be acknowledged and mitigated.

**Zoom fatigue**

A very real and significant difficulty with online conferences is the phenomenon colloquially referred to as "ZOOM fatigue." It is a familiar experience for almost all who have had to join online meetings over the past two years – whether it be one or eight hours in length. Online meetings are more mentally and emotionally taxing than standard face-to-face meetings.

As such, one of the great difficulties with navigating online meetings is facilitating them in such a way that acknowledges this reality for participants and helps alleviate it by regular breaks and time away from the screen.

**Social fellowship**

Another significant challenge with online conferences is the chasm between virtual and face-to-face connections. We all know that online meetings, despite breakthroughs in audio-visual technologies, are no substitute for face-to-face connection amongst humans. Physical, real-life interaction is important and can be facilitated by online conferences and meetings, but never replaced.

Conference organisers do well to pay attention to this reality, especially where fellowship or networking is prioritized, by following up online conferences with face-to-face events.

## 5 tips for better online conferences

Our experiences facilitating online conferences during the last few years have taught our team a few simple tips that can have a big impact on improving the experience for attendees. Here is a brief list to reference for your next online conference:

Schedule **regular breakout rooms** of smaller groups to encourage attendees to engage in more meaningful fellowship with others. Try to be conscious of how you organise these groups and make sure the Zoom organiser has proficiency with this feature before the meeting starts.

Schedule **regular breaks** to help circumvent Zoom fatigue. As a general guide, a five-minute break every hour is a good place to start. During this time, encourage participants to turn off their camera/microphone for a few minutes, go for a walk, get a cup of tea, and then come back refreshed to continue!

Think through the **pros and cons of PowerPoint and other screen-sharing tools in advance**. These tools can be effective but can also distract in the online conference setting.
– Conventional wisdom suggests that when using PowerPoint slides, less text tends to be more suitable for retention of attention. Whilst this may be true in person, in my own experience, when slides are used online, using more text can be effective to help users get back on track when they lose concentration.
– Conversely, in many other cases, not using slides can make for a better presenting experience online.
– Where handouts are used, encourage participants to print these out in advance – you can only fit so many windows side-by-side on a screen.

Have **a dedicated Zoom host** to look after the "back-end" of the online meeting. This will often involve, at the very least: admitting participants from the waiting room, recording sections of the conference, spotlighting presenters, launching polls, organising breakout rooms, and monitoring the group chat. It's a lot of work!

**Avoid hybrid approaches to conferences.** Stick to either completely online or completely face-to-face conferences. Consider providing an equivalent alternative on a separate date or with separate organisers to cover both groups of individuals. Face-to-face conferences with an online "Zoom-in" feature can be quite isolating for the online participants, therefore often a recording that can be later shared with attendees is the better approach.

## A hidden blessing

All in all, online conferences have been one of the hidden blessings that God has sent His church during this pandemic. Indeed, they have their limits and their weaknesses, but we pray that some of the tips above may help you plan your next online conference more effectively.

*"Unless the LORD builds the house, those who build it labour in vain." (Psalms 127:1)*

That being said, these tips alone are not enough to produce an effective Christian online conference. Rather, what any organising team must prioritise is the time taken to bring our plans and ideas before the God we serve, who upholds all things. Only by His hand alone will what is built, last.


### Dr Shaddy Hanna

*Dr Shaddy Hanna is a resident medical officer at Hornsby Ku-ring-gai Hospital. He has been involved with CMDFA since his time as a student - serving as the NSW student representative for a few years, and then remaining on the NSW Committee at times to assist with social media, promotion, and facilitating online conferences. Shaddy has a keen interest in technology, but a deeper interest in knowing Christ and seeing others know him more truly and clearly.*


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## Recommended resources:

"My Burnout Prevention Plan" – Valerie Ling

"Zeal without Burnout" – 7 keys to a lifelong ministry of sustainable sacrifice, Christopher Ash

The Centre for Effective Living – a NSW Christian psychology practice that specialises in burnout

# God's Gift of Emerging Technology in Christian Healthcare – Dr Ernest Frank Crocker

## Christians are uniting in ways never thought possible

*Photo Karolina Gabowska, Pexels*

**At the commencement of the pandemic, we found ourselves in uncharted waters. How would we maintain personal communication and fellowship with members given health restrictions and a potential lockdown looming?**

Face-to-face supper meetings, prayer meetings, even committee meetings were no longer possible as we watched COVID take its toll internationally and here in Australia. State dinners were cancelled and plans for a state conference were shelved.

Yet the restrictions imposed by the pandemic prompted us to explore new technologies which enabled us to reach out nationally and internationally to members as never before.

Our NSW committee began to communicate on a regular basis using WhatsApp, and we were able to meet monthly by Zoom. Members from Armidale, Coffs Harbour and the central Coast were able to join us on a regular basis.

> *"Love it or loathe it, Zoom has added a new dimension to our level of communication. Three years ago, most of us were oblivious to its existence."*

Love it or loathe it, Zoom has added a new dimension to our level of communication. Three years ago, most of us were oblivious to its existence. Yet now we use it in business, in professional pursuits or simply as a means of communicating with family and friends. How many family birthday parties have been celebrated via Zoom over these past two-and-a-half years?

The tyranny of distance in Australia has been largely overcome by these new technologies. Members can join us from cities, country and regional areas. Those who are incapacitated or otherwise restricted in their mobility have also been able to join us. We have taken courage from God's word. *'Let us not give up meeting together as some are in the habit of doing. But let us encourage one another all the more as you see the day approaching.'* (Heb 10:25).It has also become clear to us that, as prophesied in the scriptures, the Christian diaspora are uniting in a way never before thought possible.

### Prayer Meetings:

On November 11, 2019, during the time of the drought and devastating bushfires, we called members to pray together nationally by Zoom. More than thirty attended that first meeting. Later that night, torrential rain fell in Newcastle and periods of record rain followed. Someone said that we should have prayed for rain in moderation. However, we prayed . . . it rained. We were encouraged by Christ's words, *"Therefore, I tell you, whatever you ask for in prayer, believe that you have received it, and it will be yours."* (Mark 11:24)

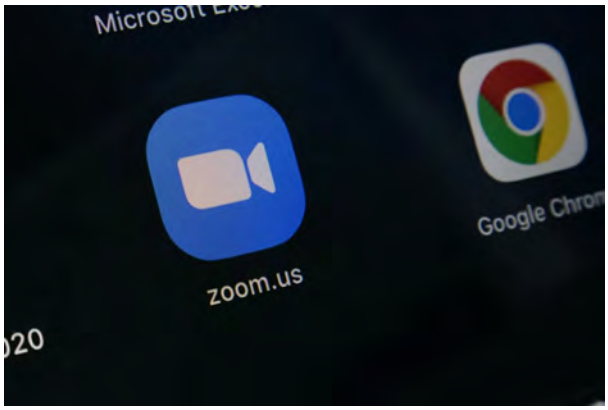


*Photo Iyus Sugiharto, Unsplash*

We met again in prayer by Zoom in March 2020 to pray against the COVID pandemic. We prayed for the ill, for those who mourned, for healthcare workers and for those suffering from isolation. From that time on we have met regularly for prayer for an hour on Friday evenings; at the time of publishing – over 100 meetings.

In August 2020, we were joined by one of our missionaries in South Sudan. He had managed to log in on his mobile phone. We saw him sitting in a mud and thatched hut. He had been bitten by a scorpion and was suffering from malaria. We were able to pray with him, and for him and subsequently saw him restored to complete health. Some weeks later, he and his wife found a three-year-old boy abandoned by the side of a road, thought to be dead. They bathed him, fed him, and nursed him back to health. We rejoiced to see him smiling and secure in the arms of his newly adopted family.

We have also been able to pray for persecuted Christians in south Asia including a doctor who had been able to join us at our National gathering a few years ago. We prayed with them through trying times, and for their Christian patients who have undergone hardship. We have prayed for doctors who have joined us from the UK, from the US and from Europe looking for fellowship and prayer support.

> *"We saw remarkable answers to prayer."*

We also prayed for members on mission in central Asia who had contracted COVID and were overwhelmed by the demands of the pandemic. We saw remarkable answers to prayer and they themselves safely returned to their families in Australia.

In recent weeks, we have been able to contact and pray with members of the Christian Medical Fellowship in Ukraine. Only two weeks ago we were joined by one of our first responder nurses from the streets of Ukraine. She had been working around the clock in an underground bunker treating those suffering from the horrors of war. She told us of one patient who was to have his injured foot amputated. He was reduced to tears when he learned that those treating him had come all the way from Australia to help his people. We prayed for her during her tour of duty with Samaritan's Purse – for safety, godly wisdom and courage.

## Webinars:

Zoom has both enabled and enhanced the several webinars that we have conducted since the onset of the pandemic. Speakers from Australia and abroad have been able to address critical issues relevant to each of us in healthcare.

In *'What Keeps Me Awake at Night?'* speakers from around Australia discussed the challenges that face us personally and at a professional level in healthcare today.

In *'Your practice and the Law'* John Steenhoff principal lawyer of the Human Rights Law Alliance addressed pressing legal matters relevant to medical practice from Canberra.

In '*Faith Responses to the COVID Crisis'* speakers from around Australia and from Thailand spoke on how to survive spiritually and experience abundant blessing during and beyond COVID.

*Photo Fox, Pexels*

## Bootcamps:

Bootcamps for new graduates held on Zoom assisted them to cope with challenges of internship even when face-to-face meetings were simply not an option.

## Supper Meetings:

Supper meetings have continued over the past two years. Up until COVID, these were strictly face-to-face affairs held in various parts of Sydney, largely in the Hills area. During COVID, supper meetings were conducted on Zoom with a few attending in person as restrictions permitted. Now hybrid meetings are possible with people attending face to face and others joining from around the state by Zoom. Recently there was a meeting with Dr Nadia Low. on furlough from North Sudan with her husband Chris. Sixteen attended in person and fourteen by Zoom. We will continue to conduct supper meetings in this manner to allow many more people to attend these functions from around Australia.

## The Future:

So, what of the future? We will continue to utilise these newly adopted technologies to expand and enhance the ministry of CMDFA.

The four pillars of our ministry are **teaching, advocacy, mentoring,** and **pastoral care and fellowship**. The emerging technologies such as Zoom, direct streaming, and social media may be seen as gifts from God. They are allowing us to proceed with renewed vigour and vision to tap into city, regional and rural areas. But there is much to be done. There are more than 100,000 registered doctors in Australia and up to 10% of these may well be committed Christians. Less than 6% of these (0.6% of the total registered doctors) are members of CMDFA. Many will be in need of fellowship and pastoral care. Our hope is that digital connection will help draw in and support those who might otherwise not be able to join us. Despite the difficulties posed by the pandemic over the past two years we may be assured of this:

*"That in all things God works for the good of those who love him, who have been called according to His purpose"* (Rom 8:28)


**Dr Ern Crocker**

*Dr Ern Crocker is a recently retired Nuclear Medicine Physician. He is currently the NSW State Chair of CMDFA. He is the author of three books: Nine Minutes Past Midnight, When Oceans Roar and most recently, The Man in White.*

# Need and Prayer in the time of COVID-19 –Associate Professor Michael Burke

## Exploring new ways to encourage each other

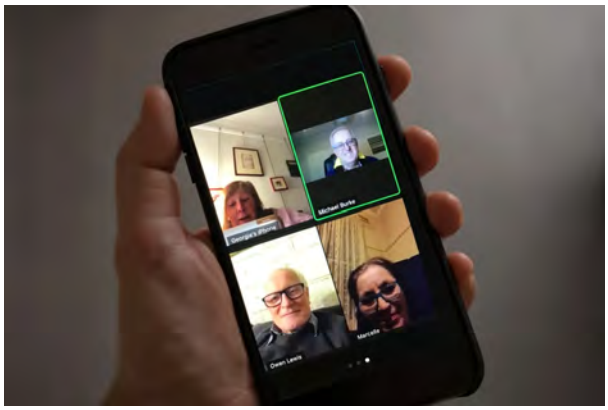

*Photo Tracy le Blanc, Pexels*

**The COVID -19 pandemic has brought many challenges and disruptions that have impacted our lives in multiple ways. Nevertheless, these times of lockdown have allowed Christian communities to commence, engage and persist in exploring newer ways to encourage each other, especially through the use of social media, apps and, in particular, Zoom meetings.**

An excellent example of this has been the Christian Medical and Dental Fellowship of Australia (CMDFA) NSW weekly Zoom prayer meeting. This Friday night meeting has been held via Zoom weekly since the beginning of the pandemic in March 2020. Email Ern Crocker to learn more about this meeting and engage, support and pray as you are able.

A lesser-known example that has brought much shared encouragement is the nightly Zoom prayer meeting of HealthServe Australia (HSA), a CMDFA partner.

### HSA – Flattening the COVID-19 Curve Prayer Group

The HSA prayer initiative is titled the *"HSA Flattening the COVID-19 Curve Prayer Group"*. This began mid-March 2020 and commences each night at 1900 AEST/ AEDST on https://zoom.us/j/292539001. All are welcome, and no passcode is required. The sessions usually last less than thirty minutes. We have prayed for healthcare workers and those affected by COVID-19; we praise God, and pray for good health for family and friends; we pray for physical, emotional and spiritual health. This daily prayer gathering continues now well into its third year. Some attend nightly, others may join once or twice a week, and others as they are led.

> *"This daily prayer gathering continues now well into its third year. Some attend nightly, others may join once or twice a week, and others as they are led."*

Over this time, we have learnt much about prayer. Prayer fulfils a need in our hearts to communicate with the God who made, maintains, and gives us life. Prayer with others has been a great resource in strengthening a sense of community and friendship amongst all who participate. Prayer is a time and place of rest and re-creation. Prayer captures and foreshadows experiences of the new Kingdom and a new Sabbath.

HealthServe Australia

We commence each session with a time of welcome, then we share a reading from the Scriptures. We have over these two+ years read several books of scripture in their entirety – Psalms, Acts, the Gospels, letters and the prophets. Then we praise God for his revelation from each passage. We loosely follow the prayerful structure of A.C.T.S. = adoration, confession, thanksgiving and supplication.

Much prayer has been directed to the challenges of COVID-19 at both personal and community global levels. We have prayed for wider Christian ministries such as the Saline Process, CMDFA and Nurses Christian Fellowship Australia (NCFA). More recently we have prayed for the sadness and distress of Ukraine.

> *"We have also learnt a great deal of the many blessings that come to those who pray."*

We have learnt much about our triune God – Father, Son and Holy Spirit. We have learnt much about each other as we serve and pray. We have also learnt a great deal of the many blessings that come to those who pray.

As Paul writes in 1 Thessalonians 5:16-18 (NIV),
*"Rejoice always, pray continually, give thanks in all circumstances; for this is God's will for you in Christ Jesus."*

## Dr. Michael Burke

*Dr. Michael Burke envisions global health transformed by accessible, compassionate and high quality health care for all. Michael is committed to whole person medicine – seeking spiritual, emotional and physical health for everyone. He is an Associate Professor at Western Sydney University and the executive officer of HealthServe Australia. Michael enjoys the Psalms, birdwatching and his family.*

# PRIME Australia: The Beauty of Palliative Care – Dr Richard Wong

## Teaching the principles of medicine, addressing the whole person

From Luke's Journal 2022 | Technology | Vol.27 No.2

*Photo Cottonbro – Pexels*

**Conceived as an initiative in postgraduate teaching in the UK in the 1990s, PRIME stands for Partnership in Medical Education. Its vision is to see that all people have access to healthcare for the whole person – the body, mind and spirit.**

**As stated on their website – PRIME's goals are:**

*"to transform patients' experience and outcome by promoting excellent whole-person care based on the values shown by Jesus.*

*to resource all involved in healthcare to pursue and encourage such practice, to find personal and professional satisfaction, and to maintain resilience.*

*to enable others to promote this ethos and approach by example and teaching.*

*where opportunity arises and resources allow, to extend our influence to other agencies engaged with health and healing, including the church."*

Put simply, this now-blossoming international network seeks not to teach the curriculum of medical schools, nor indeed postgraduate training programs, but rather to teach the principles of medicine addressing the whole person.

This may be addressed to people of all faiths and of none. It is based, however, on the principles of our Lord Himself, on who we model our teaching. In this way, opportunities for witnessing may be cultivated.

The following article by Dr Gill Horne, one of our UK partners, describes one particular PRIME teaching session. It is reprinted with her permission.

## "The Beauty of Palliative Care"

### – Dr Gill Horne (RN in the UK, specialising in palliative care)

Late in 2020, with the COVID-19 pandemic surging and PRIME considering other ways to support colleagues in low and middle income countries, Dr Martin Leiper (Scotland), Dr Richard Wong (Australia) and Gill Horne, RN (England), offered to write a basic palliative care programme that could be delivered on-line. It was hoped that it could potentially become a resource for any PRIME tutors to adapt for their use.

We based the content on a prior basic palliative care course some of us had developed and delivered in January 2020 to medical students in Cambodia, and also resources such as the Pallium India guidelines and iPal Global. We each took modules to develop from our areas of expertise and ended up with seven core modules, which included:

Introduction to palliative care,

Truth telling,

Communication – breaking bad news,

The safe use of morphine,

Symptom assessment,

Identifying dying, and

Loss, grief and bereavement.

Martin developed a helpful template for us to use in planning each module, which provided tips for facilitating an interactive learning experience. We used the PRIME education principles and scripture as the basis for each session.

We are thankful to both Dr Ron Rhodes and Assoc Prof David Butler who reviewed the course outline and content for us. Following this we made a few adjustments, and it was suggested we then 'road test' it.

Through Richard and his colleague, Dr Michael Burke (PRIME Australia), we connected with Dr Ronald Jonathon (now PRIME Indonesia).

Ronald, a GP, works collaboratively with Maranatha Christian University. The Dean of that University kindly agreed that they would host the online platform, disseminate information and coordinate interested participants across Indonesia.

Ronald agreed to chair each session. A total of 39 participants enrolled, which included doctors, nurses, and a social worker from adult and paediatric care – hospital and community settings. Some of the university medical tutors also took part.

We agreed over our three different time zones to hold the sessions every Saturday morning at 0800 GMT (1500 in Indonesian, 1900 in Australia) for seven weeks, with a one-week break for Easter. It was truly good morning, good afternoon, good evening! Each session was scheduled to last two hours, but we were asked to extend to two-and-a-half hours to allow for more discussion. WhatsApp was a great tool for all partners to collaborate the logistics of each session and to keep in contact during the course.

> *"WhatsApp was a great tool for all partners to collaborate the logistics of each session and to keep in contact during the course."*

Although we had three core tutors at the start, Dr Michael Burke (Australia) and Dr Janet Gillett (England) joined us from week two when it became clear we needed smaller breakout rooms. This helped tremendously and set us up for some great breakout room discussions over the coming weeks and some excellent additional teaching.

Our Indonesian colleagues felt translation was not needed for the core teaching sessions, but where people struggled in break-out rooms, colleagues assisted in translation. The case study with accompanying questions was translated ahead of each session.

We invited Ronald to review the content of the planned sessions. He kindly adapted the case study we planned to use throughout all seven sessions to make it relevant to Indonesian culture. And so Mr Smith became Mr Joko!

We sought to find out what was clinically available in Indonesia in terms of medications and other culturally relevant information – learning together as we progressed throughout the programme. The title, "Beauty of Palliative Care," was their choice and we were thrilled at this concept.

Each week's session started with prayer amongst the presenting team and then, when participants arrived, with a Bible reading and prayer. Participants joined us from their homes, their work, or their cars, on whatever devices they had available. Broadband speed was important for participants with band-intensive video presentations, and worth considering for future planning so that participants are able to prepare accordingly.

> *"We evaluated each session and built on any learning for the following week. At the end of the programme, we invited participants to share one key take-away."*

We evaluated each session and built on any learning for the following week. At the end of the programme, we invited participants to share one key take-away. Some of our Indonesian colleagues had never had any teaching on palliative care, and those who did, had not had teaching on identifying dying or loss, grief, and bereavement.

What worked well for the team was having a lead tutor for each session (although we shared the teaching on different aspects of the session), quizzes, having small breakout rooms for discussions (within which some of the facilitators used impromptu role play), the online platform being hosted within the country we were training, alongside a consistent chair who coordinated all organisations in preparation for each week's session.

## Next steps

The next step for our Indonesian partners is that they are hoping to make use of some of the training materials for their own teaching. We are also currently looking at potential opportunities to use this course in other countries. And of course, now we have an online training programme available, complete with PowerPoint slides and lesson plans, for any PRIME tutor colleagues who want to use this resource.

We all felt so honoured to have been able to develop this programme, learn from each other, and connect with wonderful colleagues across the world in different organisations. Praise God!

To finish, here are some examples of participant feedback on their learning:

*"The application of genuine compassionate care and treatments toward this less fortune-filled population. All of you really reflecting Jesus' heart, patience, and gentle approach in the real field (from sharing your experience in under-developed country people)."*

*"Although at first we were shy, later on we were so comfortable to share ideas. What I have learnt today is to always prioritise the most disturbing symptoms. Symptom control could be pharmacological but also non-pharmacological, thus it's very important to search out the cause of symptoms first – how intense, how frequent. Listen and never assume. Then, follow up to assess the patient in a holistic way by trying to see the problem with the 4 pillars of palliative care in hand."*

*"See from the patient's perspective what would be the critical causes of the patient's distress. Having the concern of the carer was also important. Sometimes, what makes the patient come to the clinic may not always be about the symptoms, but rather due to how he and his significant other sees and are affected by the disease from their own point of view."*

*"Today, I've learnt about how to deliver the truth about the patient's condition – what we have to do and not to dol steps and advice that I can use to build good communication with the patient and family."*

*"Helps me to understand better how not to prolong suffering in order to prolong life; and how to make a comprehensive explanation from a big framework of the patient's conditions to the family, so they can make a proper decision related to the patient's condition and future treatments."*

**Dr Richard Wong**

*Dr Richard Wong MB BS BSc(Med) FRACGP DCH DRANZCOG Senior Lecturer ( JCU) CTh DBS, is a VR GP/hospitalist in Australia who is experienced in both urban and rural settings as well as progressively serving more on overseas medical mission trips. He is a long-term member of CMDFA and was its NSW secretary for a number of years before switching to continue in a similar role in Queensland. He is a trainer for the Saline Process as well as a PRIME qualified tutor and on the board for Healthserve Australia. He is interested in utilising whatever skills God has given him to enjoy and serve Him. You can contact Richard at richardwong2010@gmail.com.*

# Generosity and Partnership at a Time of War in Ukraine – Associate Professor Michael Burke

## Resourcing and supporting Ukrainian Christian doctors

*Photo HealthServe Australia*

**In March 2022, the Christian Medical and Dental Fellowship Australia (CMDFA) [in partnership with HealthServe Australia (HSA) and the International Christian Medical and Dental Association (ICMDA)], invited Australian community members to support the people of Ukraine under invasion.**

**Together, an appeal has been made that will resource and support Ukrainian Christian doctors through communications, medical supplies, medicines and other aid.**

We are all deeply concerned and saddened by the recent and ongoing events in Ukraine. We are especially concerned for the lives and wellbeing of the civilians on the ground who have been thrust into an unwanted conflict.

ICMDA is in regular contact with doctors and dentists throughout the country through the Christian Medical Association (CMA) of Ukraine.

> *"CMA is deeply committed to mitigating the effects of the war through caring for the wounded, displaced and homeless, offering protection and support to refugees and serving in frontline health facilities."*

CMA is deeply committed to mitigating the effects of the war through caring for the wounded, displaced and homeless, offering protection and support to refugees and serving in frontline health facilities.

We invite all Australian community members to give generously to support the people of Ukraine. The Australian community has so far generously donated over $100,000 towards the initial campaign aim of $125,000. We are so grateful (on behalf of our partners in Ukraine) for your extraordinary generosity. We now seek to continue this support for people subjected to barbarity and brutality, whose lives we see on nightly television.

Dr Peter Saunders of ICMDA shares:
*"ICMDA members have given generously and enabled us to buy drugs and supplies …. This is our biggest Ukraine week yet. We are*

*sending out 185 pallets in four lorries and three vans… God is good! Thank you everyone for all your hard work and prayers."*

See Dr Rudi of the Christian Medical Association of Ukraine speak here with gratitude and hope

www.youtube.com/watch?v=6x-Ao6eeaT4.


**Donations to this appeal are tax deductible.**
**To continue to donate see** https://www.healthserve.org.au/

For real-time updates about the situation as it develops and how the resources are being used, please see https://icmda.net/ukraineappeal/

# Prayer requests

Wisdom and courage for international leaders

Protection of civilians

Restraint by armed forces

Resources, protection and strength for responding healthcare professionals

Care for the injured, and support for refugees

Generosity and compassion from God's people

Courage for God's people to advocate and speak up for justice for those with no voicec

That God will grant His protection, presence and peace to His people

That God will build His church through this crisis

## Dr. Michael Burke

*Dr. Michael Burke envisions global health transformed by accessible, compassionate and high quality health care for all. Michael is committed to whole person medicine – seeking spiritual, emotional and physical health for everyone. He is an Associate Professor at Western Sydney University and the executive officer of HealthServe Australia. Michael enjoys the Psalms, birdwatching and his family.*

# An Unpleasant Reverie on War upon Seeing the Russian Tanks Invading Ukraine – Professo John Whitehall

## A Personal Reflection

*Image: Corona Borealis Studio*

*The Luke's Journal editorial team is aware that this article has political implications and that, since publication, legislation may have changed nationally or in your state of residence and practice. Luke's Journal advises that you contact your State chair if you have any questions or concerns regarding implications for your clinical practice.*

**I imagine the 'heart of God' is appalled by this current behaviour of some of His creation. It was, I believe, for the human 'heart of darkness' that there was a crucifixion, long ago. But that dark side continues and man's inhumanity to man continues to make countless mourn in countless wars.**

### I grew up in the shadow of war

I never met my father because he was killed in Singapore before I was born. But I lived with its effect on my mother and on my stepfather who had joined the Air Force when he was only 17. Their wounds remained until they died. As a child, I could not understand why, at the sound of even distant thunder, he would go around the house, making sure the windows and doors were locked. My mother was emotionally unsound; their relationship conflictual.

We lived with an uncle who had also been in the army. One day, when I was about 8, I came upon him crying in the kitchen. He had learned that war had broken out in Korea. Bewildered, I stared at him, for I did not understand. From then, the family would follow the progress of the war on the maps published in newspapers. The progress of the North was denoted in black on a map of the peninsular: the retreat of the South in an ever-shrinking region of white. I could feel the tension when only a bit of white surrounded the southern city of Pusan. Now, I see things more clearly, and share my uncle's primordial fear.

### Experiences in Vietnam

I went on to have more experiences: in Vietnam in a refugee camp and then in a village around which bombs fell, people fled and children were burned. Knowing 'nothing' for I had only recently graduated, I joined futile surgical efforts to save the wounded, cutting flayed feet from civilians who had trodden on mines, and working in crowded hovels to curtail the spread of disease in refugees. I was so ignorant that I did not recognise bubonic plague when it erupted, even though I had observed children playing with rats, and people frying them for dinner, lacking alternatives.

> *"I joined futile surgical efforts to save the wounded, cutting flayed feet from civilians who had trodden on mines, and working in crowded hovels to curtail the spread of disease in refugees."*

I was confounded by intentional cruelty. One day, I and others in a convoy of civilian vehicles, had driven over a command-detonated mine implanted in an elevated road through rice paddies. The target was the civilian bus. Remains were brought to the hospital where I was working.

*I have never gotten over Vietnam, remaining guilty for impotence in the face of such need.*

When South Vietnam fell, I worked in an aid project in Guam for boatloads of refugees and listened to their terror and heartbreak as they had watched families drown. Later, in the Philippines, I inspected a boat that had just washed up with a load of barely-conscious refugees. They had been presumed dead, for they were all lying in the gunwales. Their desperation could be judged by the rottenness of the boat: you could pull nails from the planks with your fingers. I was then working as a paediatrician in Fairfield, near the refugee camp, and again imbibed the testimonies of the suffering of war and subsequent subjugation.

## The first war in East Timor

Later, for some months, I was caught up in the first war in East Timor. I had arrived in a fishing boat with TV magnate Kerry Packer and for some days was the only doctor in the country…all the others had fled. The hospital was a place of hopeless destitution. Over 70 men, women and children were lying in their beds, untended, with no medicines, and little food. Their wounds gaped, discharged and fed flies. In pain, they awaited death.

In my first operation, I amputated the leg of an 8 year old who miraculously was surviving gangrene from a bullet wound in his thigh. My second was on a similar leg in an older lady, who did not… I then continued day and night.

In the middle of the third night, on the little stone fence surrounding the hospital, I sat with the only other Westerner on the island, my friend Bill Bancroft. We listened to explosions in the town below and watched tracer fire cross the harbour. We wondered what we would do if we were engulfed.

## Lebanon

Then I spent six months in Lebanon, leading an aid team that worked in an intensive care unit and in a spinal injuries unit. Not only did I see people die, I observed and learned of unimaginable cruelties. It was as if human character had been as destroyed as the city itself. I, myself, was nearly executed by a crazed crowd, but that is another story. The point is, I experienced the funk of terror, and the debilitating effect of chronic fear. Almost every night, artillery shells would explode in manifestation of apparently crazed attempts of humans trying to kill each other.

## Philippines

Later, I spent six months in the Philippines, providing aid to mostly Christian people who were being selectively threatened in a Maoist revolution. At one stage we were able to provide housing for families whose children had been slaughtered when the Maoists opened their weapons on a Sunday School, knocking the children into bits, before they turned on parents working in the fields. The Maoists were making an example of those who did not provide 'revolutionary tax'.

At another stage, I was able to interview four captured Maoist executioners, and listen to their emotionless recall of how they had murdered what appeared to be hundreds of their opponents. They would make a chicken squawk in the middle of the night, and then shoot its owner when he got up to check on his brood. Or, in a dreadful purge in their own party, they would torture for 'confessions', make the victim dig his or her own grave and dispatch them with a broad knife in the neck.

## Sri Lanka

I spent another six months in Sri Lanka, during a lull in their civil war, training doctors on one side in how to look after sick and wounded children. Again, I observed the psychological and physical traumas on the civilian populations of both sides. And the lonely suffering of a young man, just a boy, in a wheelchair deep in the jungle…the result of a bullet in his spine.

## Cruelty can become a way of life

In these experiences, I observed a dark side of human nature which, when released, may show no pity or mercy, or any kind of softness, even to children. Cruelty can become a way of life. Moreover, it can be justified by ideology. For some, there is purpose in the infliction of terror. It becomes not merely a weapon of war but transcends into an act of creation.

> *"In these experiences, I observed a dark side of human nature which, when released, may show no pity or mercy, or any kind of softness, even to children. Cruelty can become a way of life. Moreover, it can be justified by ideology."*

Lenin asked "Do you really think that we shall come out victorious without any revolutionary terror?" From 1932-33, Joseph Stalin enforced a famine on Ukraine in which millions of men, women and children starved to death. He did so 'to force the kulak to his knees…so he will never rise again'. Essentially, a 'kulak' was a person who opposed the imposition of Soviet physical and ideological rule. The kulak was standing in the way of communist utopia and, allegedly, had to be removed for the sake of mankind.

The current bombardment of civilians in Ukraine is 'justified terror'. The strangulation of cities and interruption of food, water and medicines will be the current attempt to drive the Ukrainian kulaks to their knees so they will never rise again.

*26th February, 2022, Ukraine, Uzhgorod-Vyshne Nemeckoe: Refugees from Ukraine on the border with Slovakia (checkpoint "Uzhgorod-Vyshne Nemeckoe") in the Zakarpatya regions. — Photo by Fotoreserg*

It should not be overlooked that the 1932-33 Ukrainian famine was only the second worst experienced in the history of man. The worst was inflicted by Mao from 1958-62 in his commitment to utopia. And Mao is still extolled by the Chinese regime.

The temptation for utopia has theological gravity. When Jesus was taken into the wilderness for temptation, he was offered a way of salvation for mankind that would exclude the crucifixion. All he had to do was bow down to (and utilise) the Force of darkness. Strangely, many of my experiences have taught me more about God because of his apparent absence in the darkness. The world has, indeed, been blessed by the Way of the Cross.

## What then should we pray for?

My wife (who was with me in many of the above scenarios) and I prayed this morning…

We lamented the inhumanity of man, which must surely break the Creator's heart.

We recalled it is written that the Son of God assumed human form to be sacrificed for man's redemption. We recalled the power of the resurrection and sought that Power to stop this war, and others that are plaguing us.

We recalled the command of the risen Lord to pray for 'deliverance from evil' and prayed that might be so in Ukraine, and other places of worldly suffering.

We pleaded that 'your Kingdom may come': soon, without delay. And that the world would be restored to peace in which the 'Lamb may, indeed, lie down with the lion'.

Recalling Old Testament injunction to pray for widows and orphans… we pray that no one would become either of these.

Recalling the Beatitudes, we prayed for the sick and wounded in Ukraine, and those who have lost everything and are 'naked' and exposed, and whose hunger and thirst will surely worsen when supplies to cities are cut, after which they will then be imprisoned.

We prayed for those in Russia going to prison for their commitment to peace. For Light to shine in that country. We bear up the young Russian soldiers who are reported to 'know not what they do' and their mothers and fathers who will suffer.

We prayed for the strength of the medical profession, working, doubtless, with decreasing supplies and increasing need. Overcome their despair, strengthen their 'hands and feeble knees'.

Many will turn to Him. We prayed for His comfort and light. We prayed for His people in Ukraine and Russia.

We recalled that Saul of Tarsus once declared ideological and physical war on Believers in Jerusalem and he watched at least one innocent man pitilessly executed by stoning. But, on his way to intensify the war in Damascus, we read he encountered the Risen Lord. That Saul would recognise his Challenger is one thing: that he would submit is an eternal blessing. Can we dare to pray that our Risen Lord would encounter Vladimir Putin and other Russian leaders, and that they would not merely recognise but submit?

In all of this and other worldly suffering, may His name turn out to be glorified.  May we, as almost insignificant instruments, plant our tiny seeds of mustard in instructed faith, that mighty trees may result.

## Prof John Whitehall

*John Whitehall is a long-term member of CMDFA who has worked in many different countries, some of which have been at war. In the process, he specialised in Paediatrics and has taught modules of care for children in such situations. Memories flooded back when he saw film of the Russian invasion of Ukraine and imagined the plight of children. Hence the emotive 'reverie' and the call for prayer.*

# POEM: COVID Fatigue – Rev David Ware

## Though a haze hangs around me, I will not despair


*Photo by Cottonbro*

**I once was so nimble, flexible, strong,**
**Adapted so well when a surprise came along.**
**But now I feel that I've dropped many leagues,**
**Not denying the truth, I've got COVID fatigue.**

The bubble has burst, and I've slowed to a crawl.
I'm thinking the worst, this year's been a brawl,
In times such as this, there's no room for intrigue,
No great surprise, I've got COVID fatigue.

Doctor, doctor, please prescribe me a pill,
I'm more than unwell, I'm feeling quite ill,
I fear I'm a victim of virus blitzkrieg,
What's that you say, "I've got COVID fatigue?"

I'll tell you my symptoms and let you decide
It seems with this sickness there's nowhere to hide
I'm needing an expert to give diagnosis,
I'm worried I've developed COVID psychosis,

The lockdown has got me, with fears of exposure,
I'm rattled inside and I've lost my composure,
My world has shrunk down to a 5km zone,
I'm avoiding all cafés, and I'm living alone.

My flights have been cancelled, I'm trapped in this state,
I need the vaccine but still hesitate,
I walk through my suburb, a masked stranger passes,
But I can't see them clearly – my breath fogs my glasses.

I still love the footy, but can't watch a live game,
The TV adds noise, but it's just not the same,
The G* is now empty, it leads me to weep,
It's hard to relax and it's harder to sleep.

I can't attend church, I'm confined to my room,
I'm stranded at home as I listen on Zoom,
I'm avoiding all buses, and I've garaged my car,
Well, at least I don't have to travel too far.

When driving to work the schools are all shut,
Although the closure's essential, it troubles my gut,
There's nothing that's stable, and no long-range plan,
I've taken as much as anyone can!!

The doctor's reply showed great common sense:
*I know the pressure you feel is immense*
*The life you enjoyed has vanished and died.*
*Yes, so much has changed in the blink of an eye.*
*It may not seem true, but this pandemic will end,*
*Until that time comes, to yourself be a friend.*

*Have a smile, take a while, to walk in the park,*
*Enjoy simple pleasures that give life a spark.*
*Eat well, share laughter, stay active and fit,*
*Read novels, watch movies, with humour and wit,*
*Talk daily with family, and chat to your mates,*
*Meditate, pray – whatever it takes.*

*And whenever life's cruel, don't forget to be kind,*
*To yourself and your neighbour, for together you'll find,*
*Though at times overwhelming, this test in life's class*
*Into the dustbins of history, surely will pass.*

So now I'm unwinding, as I sit in my chair,
And though a haze hangs around me, I will not despair.
For no matter how ghastly or deep the intrigue,
I know it's just passing, it's COVID fatigue.


## Rev David Ware

*Rev David Ware is married to the wonderful Tracey and is the proud father of Justin and Daniel. He has served as Chaplain at Baptcare's Hedley Sutton Aged Care Community in Camberwell, VIC for just over eight years. During the various COVID lockdowns of 2020-21, he channeled his desperation into writing poems, both serious and humorous. He has just commenced his first book, "If God became an Aged Care Chaplain."*

# COVID-19 Effects on Social Determinants of Health

## A response by Nathan Grills, Millicent Hedditch, Xiao Jing Ong


*Photo Tim Mossholder, Pexels*

***Editor's note:*** *In 2021, one of our online readers asked if Luke's Journal would be able to source an article giving some insight into the lag effects of the COVID-19 pandemic on different aspects of society. Two masters students,* Millicent Hedditch and Xiao Jing *along with their supervisor* Professor Nathan Grills, *made the following submission.*

**The COVID-19 pandemic has affected more than 500 million people globally, with 6.2 million lives taken[1]. As well as the direct health effects of the disease, there are a number of other ongoing impacts.**

Social restrictions, such as lockdowns, have protected us from sickness, but have resulted in negative effects that will continue to be felt long after the pandemic has ended. They have had enormous impact on the social determinants of health, including the healthcare system, socioeconomic status, food security and access, as well as education[2]. This review explores COVID-19's implications on the social determinants of health in low and middle-income countries.

### Health

The pandemic has stressed health systems worldwide. Hospital overcrowding, overworked doctors and nurses, workforce shortages and resource scarcity have been common. Many low and middle-income countries have been overburdened by COVID-19 due to the lack of expertise, infrastructure and human resources, as well as the finances needed to respond[3].

A cross-sectional study in India reported high levels of emotional distress in healthcare professionals, including anxiety, depression, insomnia and even self-harm among frontline healthcare workers[4,5]. These psychological impacts on health workers were due to long working hours, heavy workload, insufficient Personal Protective Equipment (PPE), and the fear of transmitting the disease to family members[6].

> *"The health systems of low-income countries are the most vulnerable."*

The health systems of low-income countries are the most vulnerable[7]. A survey conducted by the World Health Organisation (WHO) found services for non-communicable diseases (NCDs), such as hypertension and diabetes, were commonly disrupted[8]. Health staff working in NCD areas were largely reassigned to support COVID-19 services. COVID-19-related disruptions have also reduced screening, diagnoses, and treatment for cancer. Ghosal et al[9] projected that the duration of lockdowns would be directly proportional to the worsening of glycaemic control in people with diabetes and would increase diabetes-related complications.

### Poverty

Other significant problems with COVID-19 in low-to-middle-income countries include unemployment, poverty, and food security[10]. Disease impact and public health measures (such as lockdowns and international border closures) collectively caused a global economic recession and a rise in poverty. The World Bank[11] estimated that 88 million people would be pushed into "extreme poverty"

in 2020 and an additional 150 million by the end of 2021, reversing two decades of progress in poverty reduction. The pandemic has resulted in widespread livelihood loss, worse in lower- and middle-income countries. Millions of businesses have shut their doors, and unemployment has skyrocketed[12]. Workers in the informal sector have little social protection and are at risk of being pushed into poverty.


*Photo Erik Mclean, Pexels*

The International Labour Organisation[13] estimated that these measures would lead to the loss of employment for 195 million people. Another projection suggested that lockdown measures, combined with the limitation of personal freedom and food system disruption, could result in the gross national income (GNI) of low-to-middle income countries decreasing by an average of 7.9%[12,14]. The World Food Programme estimated this would lead to a doubling of the number of people suffering from food insecurity[15].

> *"Without social and economic relief measures, many households fell into poverty and experienced food insecurity. This resulted in childhood malnutrition and associated child mortality."*

Using Africa as an example, public health policies designed to contain the pandemic resulted in declining economic activity and a reduced household income[16]. Without social and economic relief measures, many households fell into poverty and experienced food insecurity. This resulted in childhood malnutrition and associated child mortality. Consequently, there is a need to provide economic relief measures to protect vulnerable communities from falling into extreme poverty[12].

## Education

Education level as a social determinant is strongly correlated with life expectancy, morbidity and health behaviours[17]. Yet education has been severely compromised in nearly every country. In order to slow transmission and protect health systems, most countries closed schools, resulting in an unprecedented interruption to education. While concerted efforts have been made to maintain learning during this pandemic, The United Nations Children's Fund[18] (UNICEF) estimates that more than 1 billion children were deprived of adequate education. In India, lengthy school closures exacerbated existing inequalities in education, widening the gap in literacy between the rich and poor. The learning poverty rate (the proportion of 10-year-olds unable to read a short and age-appropriate text) is expected to increase by 10% in low and middle-income countries due to COVID-19-related school closures[19].

> *"In India, lengthy school closures exacerbated existing inequalities in education, widening the gap in literacy between the rich and poor."*

School closures have other important consequences. Notably, school closures will exacerbate poverty. For example, a child who loses one-third of a school year reduces their income potential by approximately 3%[20]. For students living in poverty, schools are often a place for eating healthily. The temporary interruption in school feeding programs such as the Midday Meal (MDM) program in India has increased food insecurity, especially for students who are already undernourished. The United Nations[15] reported that nearly 369 million children who normally rely on school meals for a reliable source of daily nutrition were forced to find food elsewhere. Children also stopped receiving routine health care from school-based health programs[21]. In addition, child abuse and neglect levels have likely increased during COVID-19 school closures[22].

*Photo Pavel Danilyuk, Pexels*

To tackle the issue of school closure, home-schooling and the use of remote teaching via online learning have been introduced. However, the COVID-19 crisis in India highlighted the digital learning divide faced by students[23]. Research conducted by Azim Premji Foundation, an Indian non-profit organisation, revealed that almost 60% of children could not access online learning opportunities for reasons such as lack of access to technology. The number of students unable to access online learning is far higher in low resource settings [24]. To alleviate these inequalities, COVID-19-safe in-person teaching options should be explored and low-tech solutions implemented.

## Religious Communities

The other social determinant that has been dramatically affected by lockdowns and COVID-19 itself is fabric underpinning socialisation and community[25]. Indeed, various publications outline the division and stigma that restrictions and fear led to [26]. This was also seen in religious communities who were restricted from meeting at the very time when such community was most needed. Some have suggested that religious communities may have been permanently disrupted, which may have longer term effects on community cohesion and, in turn, health[27].

## Summary

In summary, the spread of coronavirus has had immense human, social and economic costs that will affect health long after the pandemic ends. Many social determinants of health, including socioeconomic background, education, mental health and well-being, food security and healthcare access, have been considerably impacted. The COVID-19 pandemic has had an inequitable and disproportionate impact on the poor and those in low and middle-income countries. To avoid a health crisis that will play out over decades, public policy and the public health response to COVID-19 must be designed in such a way to limit the impact on these social determinants of health.

**Professor Nathan Grills** *is a Public Health Physician at the University of Melbourne who has spent considerable time also working in global public health - particularly in India. During the covid-19 pandemic, he has been supervising students, Millicent Hedditch and Xiao Jing Ong, in looking at the social determinants and ongoing effect of the pandemic affecting public health.*

**Millicent Hedditch** *is a 3rd year Bachelor of Biomedicine at the University of Melbourne. She is currently majoring in anatomy but has a keen interest in public health and biomedical research.*

**Xiao Jing Ong** *is a Biomedicine Honours student at the University of Melbourne with a strong interest in public health. She was part of the Melbourne University Global Health Mentoring Program, which is an initiative that provides opportunities to students to discuss current public health issues and campaign for more awareness. Currently, she is involved in cancer research at the Peter MacCallum Cancer Institute.*

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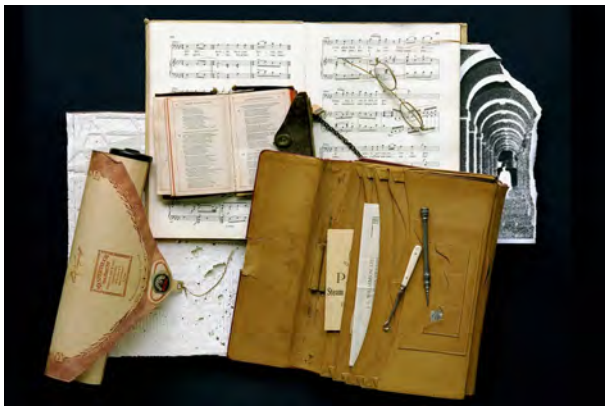
# ART: CHRONOS – Dr Ernest Crocker

## Mapping our finite striving for immortality



**The photos are from a  body of work, CHRONOS, that was published in the British Journal of Photography and exhibited in Melbourne some years back.**

Each examines a specific attempt by men and women to map their life and times. It is a natural response to explore, define and compartmentalise our world. From this we gain security and satisfaction.

But our efforts are frozen in the continuum of time, CHRONOS. They map and define our finite striving for immortality, which may only be found in a saving knowledge of Jesus Christ.


This last photo features a photomultiplier tube from a gamma camera used in nuclear medicine.

The tube detects gamma rays emitted from the body and converts them into an image of organ function.

## Dr Ernest Crocker

*Dr Ern Crocker is a recently retired Nuclear Medicine Physician. He is currently the NSW State Chair of CMDFA. He is the author of three books: Nine Minutes Past Midnight, When Oceans Roar and most recently, The Man in White. His other interest is photography, and he has published works locally and internationally and exhibited on a number of occasions.*

# Just Desserts – Georgie Hoddle RN

## Make a cake with Biblical technology!

*Photo @pistachyoo*

**Scripture Cake[5] (also known as "Bible Cake," "Scriptural Cake" and "Old Testament Cake") was extremely popular in the latter part of the nineteenth century, especially in the southern Appalachians of North America.**

The cake was meant as a way to teach young girls baking and Bible verses at the same time. The earliest recipe for this cake was published in the Atlanta Constitution on June 27, 1897. Some researchers believe the cake dates back to the late 1700s in England or Ireland, while others claim the cake was a favourite of Dolly Madison, wife of U.S. president James Madison (March 16, 1751 – June 28, 1836).

A popular verse shared with those who are helping to prepare this cake is 2 Timothy 3:16-17:

*"All Scripture is God-breathed and is useful for teaching, rebuking, correcting and training in righteousness, so that the man [woman] of God may be thoroughly equipped for every good work."*

The Bible tells us about eating raisin cakes which appear to have first been found in pagan tribes, although King David is mentioned in 1 Chronicles 16:2-3:
*"When David had finished sacrificing the burnt offerings and peace offerings, he blessed the people in the name of the LORD. Then he distributed to every man and woman of Israel a loaf of bread, a date cake, and a raisin cake. David appointed some of the Levites to minister before the ark of the LORD, to celebrate, to give thanks, and to praise the LORD, the God of Israel." (Also found in 2 Samuel 6).*

*The author with a freshly baked "Scripture Cake" and accompaniments*

## Scripture Cake Recipe

**Before you begin, here are a few simple pieces of bronze-age technology used to prepare a celebratory cake made in Biblical times.**

Look up the following Bible references and identify which utensils are used for processing our ingredients:

Numbers 11:8 and Proverbs 27:22 (grinding flour [NLT,2])

2 Timothy 2:20-21 (mixing batter[NLT])

Proverbs 23:2 (cutting fruit[NLT,3] " ma'akheleth")

Leviticus 2:4 (baking [NLT,4])

You can check the answers at the end of this article.

## Ingredients

**½ cup Judges 5:25, first clause**

**2 cups Jeremiah 6:20**

**2 Tbsp 1 Samuel 14:25**

**6 of Jeremiah 17:11, separated**

**1 ½ cups 1 Kings 4:22, first clause**

**2 tsp Amos 4:5, first clause**

**A pinch of Leviticus 2:13**

**To taste, 2 Chronicles 9:9b**

**½ cup Judges 5:25, first clause**

**2 cups each 1 Samuel 30:12, chopped**

**2 cups Numbers 17:8, chopped**

## Garnish

**Sliced Genesis 43:11**

## Instructions

Chop up the dates.

Preheat the oven to 180 degrees Celsius. Cream butter and honey. Add egg yolks. In a separate bowl, mix flour, yeast and salt.

Add desired spices, such as cinnamon, ginger, cloves, and nutmeg. Add dry ingredients to the creamed mixture, alternating with the milk.

Beat egg whites until stiff and fold into the batter.

Coat the chopped figs, raisins, and almonds with flour to keep them from sinking to the bottom and stir into the mixture.

Pour into a well-greased 25cm cake pan. Bake for 2 hrs.

Then garnish.

## Recommended ongoing study

Add to the references ingredients that you can find in the Bible. There are many!
Prepare a recipe of your own and send to Luke's Journal with a photograph of your baking success!

### Answers to Biblical technology questions


**1. Mortar and Pestle**

*"They made flour by grinding it (the manna) with hand mills or pounding it in mortars."* (Numbers 11: 8b)

**2. Wooden Bowl**

*"In a wealthy home some utensils are made of gold or silver, and some are made of wood and clay. The expensive utensils are used for special occasions, and the cheap ones for everyday use"* (2 Timothy 2:20)

*"When Gideon got up early the next morning he squeezed the fleece and wrung out a whole bowlful of water."* (Judges 6:38b)

**3. Bronze Knife**

*"Lamech's other wife, Zillah, gave birth to a son named Tubal-cain. He became expert in forging tools of bronze and iron."* (Genesis 5:22a)

*"If you are a big eater, put a knife to your throat."* (Proverbs 23:20 – a warning against gluttony that can lead to harm.)

**4. Clay Oven**

*"If your offering is a grain offering baked in an oven, it must be made of choice flour, but without any yeast."* (Leviticus 2:4a – instructions for a ceremonial grain offering.)

*"They are like an oven that is kept hot while the baker is kneading the dough."* (Hosea 7:4b)


## Georgina Hoddle, RN

*Georgina Hoddle (Registered Nurse) has always been interested in sourcing and eating ancient food. She lived in Italy for 30 years and worked as editorial assistant for a journal that focussed on nutrition for people with diabetes. The Mediterranean diet advocates eating Biblical foods[1]. Georgie has presented many Christian fellowship talks on this subject over the last 10 years. Some of these recipes can be found in Luke's Journal, 2017, p41. https://issuu.com/lukesjournal/docs/lukes_journal_917_web*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