ASIAN
HORIZONS
Vol. 10, No. 1, March 2016
Pages: 20-32

TAMING THE TECHNICAL GENIE

Sahayaraj Stanley, SJ♦
Arulkadal, Chennai

Abstract

Technology rules the world today. While praising the usefulness of technology, the world is at times blind to see the dangers and responsibility that come bundled with this technological gift. Excessive use of technology triggers ethical questions. The sacredness of the human person is threatened. Playing God or replacing God with the Golden Calf seems to be the favourite sport today. The role, the reach and benefit of technology to the poor and vulnerable needs to be discussed and debated. Technology is a genie. Are we masters or slaves — that is the question.

Keywords: Bio-Piracy, Golden Calf, Moral Sleeping Pills, Poor and Vulnerable, Responsibility, Robots, Technology, Theology, Zygmunt Bauman

1. Introduction

Technology rules. When one looks back at the torrential rains and the unprecedented floods in Chennai back in December 2015, one comes to appreciate the marvellous role played by the social media. Whatsapp, Facebook and Twitter united thousands of volunteers and coordinated the relief and rescue operations. This is one side of the story. On the other side, the IT companies, whose operations were very badly affected by the floods, saw to it that their employees work as usual. Special provisions were made for these IT people so that they could continue their work, irrespective of the floods outside. Their laptops became more important than their location or mode of survival. This is the other side of technology.

♦**Sahayaraj Stanley** is a Jesuit, teaching in Arulkadal, the Jesuit Regional Theology centre, in Chennai. He has a licentiate from Accademia Alfonsiana (Rome) and completed his doctorate in Theology from the Leopold Franzens Universität, Innsbruck, Austria. His special areas of interest are: Ignatian Spirituality, leadership studies and globalization. Email: sahaysj@gmail.com

A casual look around the world shows us the promises and dangers of technology:

- Advances in Genetic engineering: The changes and challenges in the production of food crops would be the best examples for genetic manipulation. The use and abuse of this technology is widely discussed.

- The emerging neurosciences and the ensuing ethical dilemmas: Neuro-ethics, a new discipline is slowly evolving to access the correlation between brain and other nervous systems and the ethical questions raised, when issues such as privacy and identity come.

- Informatics engineering and the ethical issues: informatics predict that there would be more smarter and faster connecting technologies in the future. Ethical questions would arise with reputation, regulation and responsibility.

- Weapons of mass destruction: The atomic bomb nightmare is still very vivid in the memory of the world and today, there are other listed and non-listed biological and chemical weapons to be employed in the theatre of war.

- The development of "Nano Technologies": Conceived as the convergence of various sciences, nano technologies are promising and challenging scientific concepts. The nano technology promises a revolutionary change in the world as we see it now, and at the same time, scientists also warn of health hazards that come along with nano particles.

These are some of the examples for the role of technology in our lives. Technologies can make us either clever or just plain stupid.[1] There is a close connection between technology and culture, between technology and people. As cultures switched over from one epoch to another epoch, technology too gradually progressed. This progression has been enormous in the last few years. Gordon Moore predicted in 1965 that in the following years the computer power would be increased more with transistors occupying less space and electronics would be cheaper.[2]

---

[1]Nicholas Carr in the Atlantic magazine asked, "Is Google making us stupid?" The article analyses the effect of google on our brains. Please See: Nicholas Carr, "Is Google Making us Stupid," *Atlantic*, July–August 2008, online in http://www.theatlantic.com/magazine/archive/2008/07/is-google-making-us-stupid/306868/. Accessed on 14 December 2015.

[2]Gordon Moore is a pioneer in semiconductor devices. In 1965 he predicted that the computer processing power would double every year. This is an insight known

This article would like to enquire a little about the challenges posed by technology and some of the theological implications.

2. Supremacy of Technology

In the past, for a learned Tamil person, the day would begin with reading "The Hindu," one of the most respected newspapers in Tamil Nadu, and some used to wait for their BBC morning bulletin that would be broadcasted around 7.30 a.m. Today, life is changing. Day begins with google and ends with google. For many, Wikipedia is the only encyclopedia that has no parallel. Few don't even remember the days when they consulted the *Encyclopaedia Britannica* and other references and resources.

The Singularity Is Near is a famous book by futurist Roy Kurzweil who advocated the singular moment of technology taking over the human person.[3] Jimmy Guterman reports that there are 12,000 robots working in the United States Army.[4] Google is trying to introduce driver-less cars and Amazon is trying whether it could deliver goods to your doorstop by using drones. More and more people are turning towards the internet to clarify their doubts, from cooking recipes to making bombs.

The supremacy of technology can be clearly seen in the way we enjoy our movies, who bring before us the dexterity of special effects. Though they are part of a fantasy world, one can see an iota of truth behind the fictional representation. In 2010 came the Tamil movie, "Enthiran," which was a blockbuster hit with Rajnikanth as the lead actor. Though the director does not accept, one can observe and notice the traces of the famous Hollywood movie "I Robot" that came in 2004 and other science fiction movies of Hollywood. Technology in the entertainment industry makes us delve deep in to the shades of

---

as "Moore's Law." See: http://www.computerhistory.org/siliconengine/moores-law-predicts-the-future-of-integrated-circuits/. Accessed on 25 July 2016.

[3]Roy Kurzweil is an interesting person who has had about twenty doctorates from many academic institutions. He predicts that the future belongs to technology. He believes that there would be no more human evolutions, but there would be technical evolutions. The merger of men and machines is happening, and according to him, machines will outsmart the human person in the future. In his book, Ray describes about six epochs. The first epoch begins with physics and chemistry. The second epoch deals with biology and DNA. The third epoch talks of brains, the fourth epoch is about technology. The fifth epoch is the "Merger of Human Technology with Human Intelligence" and the ultimate sixth epoch is "The Universe Wakes Up", and this is the point of Singularity. Please See: Roy Kurzweil, *The Singularity is Near*, London: Duckworth Overlook Books, 2008.

[4]https://hbr.org/2012/01/generation-robot. Accessed on 15th December 2015.

artistic superiority, with enhanced viewing and listening experience. These films present to us "thinking" and "feeling" robots, and one is puzzled with the ethical questions they pose!

One of the major areas that got the help of technology is the health sector. Today, modern technology is extensively used in the diagnosis and treatment. Telemedicine is slowly becoming popular. Telemedicine bridges the gap between distances and bring the much needed medical assistance through various technologies. It is interesting to see today that often people check the internet with the prescription of the doctor! In some cases, the doctors tell the patients to get more information from the internet! There are online databases and stored information can help the doctor in providing the whole medical history of the patient. Technology is also coming as the aid to diagnose and cure many incurable diseases that were once challenges to the humanity.

Jerry Kaplan writes, "Recent advances in robotics, perception, and machine learning, propelled by accelerating improvements in computer technology, are enabling a new generation of systems that rival or exceed human capabilities."[5] He forecasts that the artificial intelligence that is manifested in the computers and robots would bring in enormous prosperity and leisure but this transition period would be protracted and brutal.[6]

Technology and the Growth Paradigm

Down the centuries, the human person is much obsessed with success and development. This success and development come with a price. That is, most of the times, the human race uses and abuses the nature for its own improvement. To quote again the example of the Chennai floods, the main reason cited for the flooding of Chennai is the destruction of water bodies and the transformation of small ponds and lakes into concrete jungle.

The human person wants technology but Professor Guggenberger points out that this technology comes with an enormous moral responsibility.[7] Quoting the German philosopher and anti-nuclear activist Gunter Anders, Guggenberger writes that simple

---

[5]Jerry Kaplan, *Humans Need Not Apply*, Connecticut: Yale University Press, 2015, 3.

[6]Jerry Kaplan, *Humans Need Not Apply*, 3.

[7]Wilhelm Guggenberger*, Are We too Successful to Survive? Growth beyond Welfare*, [Unpublished], paper presented at JDV, Pune, India in September 2015. Professor Guggenberger teaches in the University of Innsbruck, Austria.

technological progress, without out a moral responsibility is like the sword of Damocles hanging up in the air, ready to come down at any moment.[8] For example, Hiroshima has already shown the world what the meaning of atomic destruction is.

We are approaching a crucial time in the development of robotics, that the machines are beginning to learn to familiarise and adjust themselves to the given environment. These self-learning Nanobots can be useful to be employed in dangerous circumstances. These machines could be very good workers under a human control, but left to them alone, they could create havoc.

Technology is here to help us or to replace the human person? This particular debate has not yet gained momentum, at least here in India. Japan's Honda Corporation has developed a robot by name "Asimo" and this is a special robot that can even artificially think like a human person. This Asimo can dance, obey orders and catch hold of a glass and pour a liquid from a container to a tumbler. Japanese companies have also created robots that could play with small children, by understanding simple commands. All sounds wonderful, but the ethical questions remain. If there are machines to do babysitting, and robots to do the manual works that are traditionally the domain of the low-end labour force, then, future could be challenging!

3. Technology: The Moral Sleeping Pill

Today, technology is used by the world governments to suppress democracy and for organizational efficiency. While focussing on "efficiency," these technologies lack the much needed humanness. Zygmunt Bauman called these techniques as "Moral Sleeping Pills."[9] He said the technical-administrative success of the Holocaust was due in part to the skilful utilization of 'moral sleeping pills' made available by modern bureaucracy and modern technology.[10]

Bauman says that technology is used in a subversive manner and organizations "maim the moral impulses" through certain techniques. Quoting Bauman, Professor Rene Ten Bos writes that organization uses these three inter-related strategies:[11]

---

[8]Wilhelm Guggenberger, *Are We too Successful to Survive? Growth beyond Welfare*.

[9]Zygmunt Bauman is a Polish sociologist born in 1925, now living in London.

[10]Zygmunt Bauman, *Modernity and the Holocaust*, London: Polity Press, 1991, 26.

[11]Rene Ten Bos, "Essai Business Ethics and Bauman Ethics," *Organization Studies* 18 (1997) 997-1014.

(1) Denial of proximity

(2) Effacement of Face

(3) Reduction to Traits

Surprisingly, all these three factors can be fully applied to government machinery, which works in an undemocratic manner and a government that alienates its own people. All these strategies employ and work with technology.

The denial of proximity in the neoliberal context gives the principal agent the anonymity to operate and saves him / her from any pangs of guilty conscience. The effacement of Face gives the perpetrator of a crime to cunningly avoid from any determining evidence and the reduction to Traits reduces the human person to mere numbers or to some abstract reductionism that leads many times to '*reductio ad absurdum'*, reducing to an absurd argument. These techniques again help the organization, because obviously it is easy to deal with numbers than with real human persons with blood and bones.

Proximity and distance are two parameters that technology loves to manipulate. This notion of proximity and distance is very much connected with the concept of 'power'. A simple example would be our everyday use of "Remote Control." By comfortably sitting in our chair, we would like to control devises. The same analogy can be applied to military drones operated in the so called enemy areas, and these unmanned aerial vehicles can cause immeasurable damages, while their controller comfortably sits thousands of miles away, totally immune to the catastrophe.[12]

By using proper technology and by the denial of proximity, the bureaucratic machinery can achieve what it wants. By denial of proximity, the government does not want to come to the vicinity of the poor and common people. One can also interpret and say, the proximity of justice is denied to the poor in the Indian democracy.

Next is the "Effacement of Face." It talks about the obliteration and annihilation of the face of the object — here the common person. "A Face" gives someone identity. When the face is destroyed, the identity is gone. I would like to interpret the effacement of face, not only as total obliteration but also partial that could symbolise a mask or hood. During the 2002 Gujarat riots, homes destroyed by exploding gas cylinders damaged the walls and foundations so

[12]Does the use of drones violate the just war theory? Discussions are now on about the ethical use of drones.

profoundly that it made them unsafe to inhabit, thereby making it impossible for people to return and reclaim their homes. Faces of victims were destroyed. This was particularly evident in Naroda-Patia, a Muslim neighbourhood in Ahmedabad that saw some of the worst destruction and violence.[13]

Technology not only obliterates and destroys all traces and create a clean track record for rioters, as we all know, technology can also be used to make anonymous calls, anonymous threats and indulging in dubious activities under the hood of anonymity. The hood of anonymity can invoke fear, secrecy and surveillance. One can see the long arm of technology in all these criminal branches.

The third element is the reduction to traits. This is normally to neutralize the moral impulse and to destroy the object of action as a moral self. This moral self, Bauman emphasizes, should be seen as a totality, and it is this totality which is sacrificed in order to prevent the moral impulse arising, that is, the moral self is typically 'dissembled into traits' to which we cannot ascribe any moral quality.[14] As a consequence, employees are not treated as holistic persons, but rather are seen as persons with specific traits.

Technology bridges the distance, it gives anonymous identities. There is a gradual merger of men and machines. This aspect can be further elaborated and seen as a transition from "Homo Economicus" to "Homo Technicus."

4. Replacing the Biblical God with an Anonymous Digital Deity?

There are people who would like to buy the latest in the market. This is a real act of 'buying' apart from taking part in a commercial activity, thus encouraging the business aspect of it, they would like to be on par with the latest trend. Nothing wrong in it! On the other hand, when this craze for being abreast of latest technology that presents itself in commercial forms, it may slowly become an addiction. This addiction, in strong cases, will go on and on.

The human person is always on the search. She/he searches for God and this search for God, comes in many ways of perfection or imperfection. In her/his search for God, the human person also

---

[13]Rupal Oza, "The Geography of Hindu Right-Wing Violence in India," in *Violent Geographies: Fear, Terror, and Political Violence*, ed. Derek Gregory, Allan Pred, London: Routledge, 2007, 153-173.

[14]Rene Ten Bos, *Essai Business Ethics and Bauman Ethics.*

makes many things as God, or would like to make artificial things as God, in order to replace him. This is the quintessential "Golden Calf." Modern technology could well be a golden calf. Humanity wrongly places its faith and trust in technology and believes that this technology could solve its problems and the eternal search for meaning.

The human persons' search for meaning cannot end with a created being. It can only end with God, who is the author of the cosmos. This search for meaning not only ends with God, it also begins with God. This meaning is very closely connected with the human person, with individuals and with the entire human family. This meaning is intrinsically intertwined with the goodness of humanity.

The sacred biblical drama has a good God on the one side, the wicked Satan on the other side and the human players in the middle. On seeing the pathetic plight of the human family, Jesus comes down to show the way, to give meaning to the seemingly meaningless lives. Jesus stood by the power of goodness, with the strength of truth and grace and enhanced the cosmic goodness by sacrificing his life. The death of Jesus was never a conquest of victory for the evil. By his death, Jesus became victorious. Perhaps, a complex mathematics in God's own matrix of understanding. But the point is, truth ultimately triumphs or goodness wins.

The test for technology could be deciphered simply. It is the same with all the discoveries. They have the potency to cure and to curse. The important point here is that these technologies do not have a mind of their own. They are designed, operated and maintained by human beings. They follow their masters' command and these masters are not digitally designed robots but people with flesh and blood. When the ethical orientation of the producer/user is correct, then all will be well. The problem and the challenge is that almost all the technologies that we have are like double edged swords. While they heal, they have the potency to harm.

Is the Church afraid of technology? This is a difficult question to answer. Obviously, technology, or the world of technology has learnt many important aspects from the Church. The power of healing, the power to transform oneself to another realm, the power of giving confidence to the human person, the power to interact, the satisfaction of helping someone in need — all are possible today, at

least to some extent by using the modern technology.[15] These powers are traditionally attributed to the Church.

> Humanity has entered a new era in which our technical prowess has brought us to a crossroads. We are the beneficiaries of two centuries of enormous waves of change: steam engines, railways, the telegraph, electricity, automobiles, aeroplanes, chemical industries, modern medicine, information technology and, more recently, the digital revolution, robotics, biotechnologies and nanotechnologies.[16]

This is how the recent Papal encyclical *Laudato Sí* describes the creativity and power of technology. The industrial revolution paved way for the digital revolution and this digital revolution is today touching and transforming many areas of the human society. The human community with its own creative power makes technology more powerful.

The interaction between technology and theology brings back an age old question about the way we think about the identity of God. Who is God for me? Or a postmodern youngster might ask, is my god more powerful and mightier than my robot helper? These questions might be serious or stupid, depending upon our perspective. If only one equates God with power, speed and might then there could be hundred robots who could play the role of God. The concept of God defies our explanation that could be the only sensible answer.

If I can describe my God as I could describe a theorem, then god cannot be a god, for he becomes a limited person under the purview of my limited human intellectual faculty. God is a mystery, but this mystery is manifested through the actions of Jesus. A robot can never be a mystery, because its actions are programmed and written in codes. It is said that the new generation robots could read and respond to human moods, but I doubt whether there would be room for human emotions like compassion and sympathy, unless these emotions are also programmed! Then, if emotions like sympathy are programmed (!) then I don't know whether we can call it real actions or dramatized and pre-written commands to be executed!

Technology does not believe in Revelation. Revelation is centre to our faith. We believe that God created us in his own image and likeness. So, God becomes the supreme source of our being and our

---

[15]I am elaborating the thinking of Albert Borgmann, a German born American philosopher, who has extensively written about the interactions of technology with society, specially with post modernism.

[16]Francis, *Laudato Sí*, 102.

knowledge. Pure science will not accept a God as the creator. We believe that this God is the embodiment of goodness and kindness. The proof? Jesus himself. With Jesus, we anchor God in the incarnation. God reveals his divinity and God also reveals his vulnerability. In the imagination of the scientist, a robot cannot be vulnerable. The success of the scientist lies in creating a fool-proof machine! Human persons can make mistakes and then correct them... and it would be a learning process. When a finished computer product makes a mistake that would be a disaster.

Technology always trucks with the powerful. Technology normally is employed by the rich and the powerful to make life easy, cosy and comfortable. On the other hand, the notion of "Revelation" is connected with the poor and vulnerable. Sure, there are some technological wizardry that helps the monetarily powerful yet physically challenged elite. For the penniless poor, the reach of the super technology is still a distant dream.

A theme that is closely associated with Revelation, that is the revealed truth, is Jesus. This Jesus cannot be perceived without his Cross. This is the ultimate sacrifice. Theology and sacrifice are themes that are closely interlinked. Technology and sacrifice is normally unthinkable. Technology goes along well with success, speed, efficiency, precision and cost effectiveness. Sacrifice is a notion close to the human heart, not to a technical heart![17] This Christology has been the central focus for centuries and has been the guiding vision for humanity for a long time. In a way, Jesus is a time-tested Messiah!

The catholic theology is Trinity based. Trinity, in a very simple understanding stands for community. This Trinity cannot be but an embodiment of goodness. There is no room for wickedness, malice or evil in the design of God. Technology can err and the human history has seen the wickedness and evil of technology in the form of Hiroshima, in weapons of mass destruction, in the form of Bhopal Gas leak, the unresolved problems of how to dispose the toxic wastes

[17]In one of the Hollywood movies on artificial intelligence, I Robot, the hero recalls the incident. In a technically advanced society, once he travels in a car with a child. The car meets with an accident and drowns. A robot jumps in to the river and breaks open the drowning car. The robot saves the hero, because according to the Robot's calculation, the grown up man (Hero) has better rate of survival than the small child. So, the Robot allows the child to die and rescues the man. The point here is, that this rescue operation is done not out of kindness and helping tendency, but a pure mechanical act, based on survival rate of calculation. (Today's version could be an operation done or not done based on the bank balance of the victim!)

— the list can contain many references. Unlimited and unexpected goodness and kindness can only be the property of God or the properties of his image, the human person.

"Life is a tale, told by an idiot, full of sound and fury, signifying nothing," was the famous quote of Shakespeare. Many people would gladly agree to this gloomy, pessimistic statement. Thomas Hobbs presented his philosophical vision, where the human person is very selfish. On the other hand, the Christian theology presents the vision of hope. This hope is centred on Jesus and in his resurrection. The empty tomb showed that Jesus was alive and active again with his people. The humanity in its existence needs plentiful doses of vitamin "Hope." There are ample possibilities and likelihoods that things may go on topsy-turvy at any given moment, but, in spite of these uncertainties, we march on, trusting and hoping on the Good Lord.

We believe that He would never abandon us, come what may! This element of trust might look foolish, foolhardy or even naïve for some hardcore scientists, but eventually, there is a slight bit of mysticism and mystery attached to this undaunted trust. The hard fact is, the rich can place their trust in money, power or in other things that could perhaps assure them comfort and solace, but for the poor, who have no money, the much needed comfort can come only from God.

5. Conclusion: Towards Future

We live in a very beautiful world. This God-given world is good too, from the very point of God (Gen 1:31). The human person, the pinnacle of God's creation, and the climax of His created activity is called to live together with all the created beings. This is the grand vision we see in the book of Isaiah (11:1-9). Turning our gaze from the utopian vision of Isaiah, we look at the harsh realities of life on earth. May be the opening lines in the *Tale of two cities* could summarize the plight and dilemma of the modern person very succinctly:

> It was the best of times, it was the worst of times,
> It was the age of wisdom, it was the age of foolishness,
> It was the epoch of belief, it was the epoch of incredulity,
> It was the season of light, it was the season of darkness,
> It was the spring of hope, it was the winter of despair,
> We had everything before us, we had nothing before us,
> We were all going direct to heaven, we were all going direct the other way.[18]

[18]Charles Dickens, *A Tale of Two Cities*, London: Penguin Classics, 2003, 1.

These words of Charles Dickens are very true today. Though the beginning of the creation was good and beautiful, today we know that we live in a very sinful world. May be the words of Dickens are very true today, in our days with the deification of technology.

How are we going to proceed? Indeed, this is a thought provoking question. I am just enumerating a few aspects.

Understanding the power of Technology: In today's world of social media and technology, the word "FOMO" is fast becoming popular.[19] Fomo is nothing but an acronym for the *Fear of Missing Out*. People would like to be in touch, always and everywhere. One can see these new generation people always glued to their smart phones, tablets or laptops. For youngsters most of the times it is peer pressure and for matured adults, at times it is the nature of job. One would like to be always on the forefront, always ahead, always running. Sounds heady... but if there is no proper balancing, there would be a burn out. One needs to understand the power of technology. A complete withdrawal may further complicate matters! So, one has to understand the power, influence, use and abuse of technology, specially the communication media and one has to find the middle ground of not being an addict and not being ignorant.

Critiquing the Technology: Technology has to be criticized. We welcome the new trends and technology but at the same time, critiquing it, is very important. Technologies that help the poor and marginalized and technologies that help the betterment of humanity is always greeted and cheered.

Showing Solidarity with the Poor and Vulnerable: How can technology show solidarity with the poor and vulnerable? They can, when they further their improvement. There are scientific improvements in the area of creating wealth for the poor and serving the marginalized. The command of technology's empowerment of the poor and vulnerable has been demonstrated by pooling the resources to help the farmers. Technology's help for other vulnerable sectors are also being explored now. The E-Choupal initiatives, aggressive drive on organic farming, drip irrigation — all these are some examples.

Using Technology for the goodness of Humanity: As the title of this article says, technology is like a genie. It can be used as per the

---

[19]Please See: Oh my god! I have FOMO, Times News Network (TNN), Jul 24, 2013, in http://timesofindia.indiatimes.com/city/ludhiana/Oh-my-god-I-have-FOMO/articleshow/21302849.cms. Accessed on 15 December 2015.

will and wish of the master who controls it. Use of technology needs to be directed towards the goodness of the community, specially the poor and vulnerable one. Most of the governments use technologies like information technology and the like for controlling and surveillance.

Anchoring oneself in the Transcendental God: How to escape death? How to have an immortal life? These are two of the ultimate quest of technology. The human person would like to defy death and does not want a God. This is the non-believing camp. On the other hand, our faith in God comes from a belief system. This belief says that God is the creator of the world. He has created the world, he directs and he governs it and he will see to its fullness and blossoming. This fullness and blossoming need not be a pure scientific, materialistic one. The final Kingdom image is beyond imagination and can be accommodated only in the realms of eschatology. Meanwhile, we humans are busy in living our lives, helping and cooperating with God and his creation. Anchoring oneself in God means, anchoring oneself in humanity.

The human history shows that it was a gradual evolution. History shows and teaches and when the stubborn human does not want to listen, then nature destroys for not paying heed to its advice. The human family seems to be testing the patience of nature and playing with it beyond limits. We need to have a course correction. Otherwise, we will be forced to correct!