

The Trouble with Technology

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Modern religion is thriving in the world today. Every day men bow at the altar of innovation, making sacrifices to a god called Progress. Progress rewards its worshipers with tangible rewards from the technological treasure chest—HDTV, iPods, plasma screens, dual core processors. The production of more sophisticated technology, and the money it generates, justifies the pursuit and the sacrifice.

But Progress is a false god and a true antichrist. Its modern religion has boldly given mankind an unwarranted promotion while it has subtly marginalized the true God. And it has enslaved its adherents with intangible chains, keeping them busy, distracted, and entertained as they strive to lay hold of a pipe dream.

A Recent History: Moore's Law

In 1965, Dr. Gordon E. Moore, co-founder of Intel Corporation, wrote an article that anticipated the age of the personal computer and established a model for the development of technology. The article forecast the effective cost of computer processing power would be cut in half every two years—more complexity at a cheaper price.

Lower costs would enable manufacturers to increase the complexity of an integrated circuit, and Dr. Moore predicted a doubling of processing power and performance every two years. That was a revolutionary idea at the time, an idea Caltech professor Carver Mead called “Moore's Law.”

Moore's Law wasn't merely an informed prognostication. Dr. Moore had mapped out a formula for the technology industry that demanded efficiency and speed in research, development, and production. Technology companies that failed to adhere to the two-year timeframe risked getting left behind.

Dr. Moore and his colleagues were among the first to wed technology and business, first with Fairchild Corporation and then with Intel Corporation. Soon, “every new idea that came along created at least one new company,” something Dr. Moore calls the “Silicon-Valley effect.” Moore's Law drove competitors forward in a race to be the first company to release the newest technology,

resulting in rapid development of computing technology.

Intel Corporation developed the first commercial microprocessor in 1971, Intel's 4004 chip, which kicked off the revolution in personal computers. That was only the beginning. Moore's Law went beyond integrated circuits to advance the development of hard disk storage, RAM storage capacity, fiber optic data transmission, and digital imagery.

Central processing units (CPUs) enter the market every year, and they are faster and smaller. Researchers recently set a processor speed record of 500 GHz and simulations push the possible speeds up to 1 THz—that's *terahertz*. In comparison, the fastest dual-core processors available in today's personal computers have a combined speed of 5-6 GHz. As for size, Intel manufactured its latest processor, the Wolfdale, on a 45 nanometer (nm) chip (the diameter of an atom of silicon is around .2 nm). Just ten years ago, chips were produced at 500 nm. Enter the age of nanotechnology.

The rate of development has been staggering; technology today is faster, smaller, more powerful, and more efficient than ever, and there are no signs of the trend slowing. Advancements in technology continue to double every two years or less. Even though Dr. Moore himself doubts Moore's Law can go on forever, scientists are keeping the faith. Some hope carbon nanotubes and quantum computing will replace silicon and transistor technology. Salvation by innovation; Moore's Law lives on.

The Effect of Moore's Law

Moore's Law and the rapid evolution of computer processing, especially the advent of the personal computer, have changed the face of public and private life. The decreased cost to develop more complex, more powerful computer processors has delivered the benefits into every sphere of life—business, engineering, science, medicine, the military, and beyond. Moore's Law has given scientists, engineers, and programmers a reason to put faith in the future—they've witnessed results and breakthroughs that were once unimaginable. Impenetrable barriers continue to disappear as scientists come closer to them.

The economic element of Moore's Law, especially the success of Silicon Valley ventures, made Moore's Law an attractive standard for other industries, even for society as a whole. Expectations created by technology now fuel the insatiable consumer demand for Progress, in every industry, and innovation has become the key to every successful enterprise.

But is technology a Trojan horse? How does Progress benefit "the faith which was once for all delivered to the saints" (Jude 3)? What does innovation have to do with unchangeable truth and an

unchanging God? How does the modern, secular hope of future advancement affect core doctrines of the Christian faith?

The demands of technology, progress, and innovation have affected modern perceptions, which in turn animate the antichrist spirit of the modern world. That's a strange thing to say, especially since the benefits of technology are so apparent. But the subversion of God and His truth has been subtle because it's cloaked in the robes of Progress. More now than ever, the Christian gospel battles against an entrenched mindset of secularism in the popular culture. Man stands at the center while God looks in from the periphery.

Subversion of Wisdom

Honoring the Aged

The Bible teaches, "You shall rise up before the grayheaded, and honor the aged, and you shall revere your God" (Leviticus 19:32). "A gray head is a crown of glory" (Proverbs 16:31). Why? Because the older generation is a repository of truth and wisdom. Peter instructs young men to submit to their elders (1 Peter 5:5). Paul commands older women to teach the younger women (Titus 2:3-5). Leaders in the church are to be older men, called "elders," who stand apart for their time-tested maturity and wisdom (1 Timothy 3:1-7; Titus 1:5-9). From cover to cover, the Bible promotes the honor of the aged because of their wisdom.

But technology favors the young. Technology advances so rapidly that even experts struggle to keep up with the pace. New products hit the market almost annually with new user interfaces, new software, new updates, and young people with energy embrace the challenge to learn new things. To them, the novelty is almost euphoric.

Not so with older people. With age comes resistance to change (and that's not always a bad thing). You can almost hear a teenager's thoughts: "Why should I honor the older generation—they can't even program a cell phone!" The perception of youthful superiority enters popular culture via many different avenues, but technology reinforces it in tangible ways. A Bible that elevates the wisdom of the old appears to support institutional power structures and suppress the bright new thoughts of the young.

Maintaining Role Distinctions

The Bible clearly assigns different roles to men and women (1 Corinthians 11:3; Ephesians 5:22-33; Titus 2:3-5). By God's design, men are to be sacrificial leaders, faithful providers, and courageous protectors in society; women are to be submissive helpmeets, devoted homemakers, and nurturing mothers. That role distinction between the sexes was almost unquestioned in human history until technology started leveling the playing field in the mid-twentieth century.

For centuries, physical strength and battlefield prowess made the difference in provision and protection. Today, anyone can program a computer, fly an airplane, and push a button to drop a bomb. Because of technology, Peter's concept of women as the weaker vessel (1 Peter 3:7) is a hard sell. As Jonathan Rauch says in his article, "The Coming American Matriarchy," "If there is a 'weaker sex,' it isn't female." A Bible that assigns the leadership role to the man and the submissive role to the woman appears outmoded (at best) and chauvinistic (at worst) in the equalizing light of technology.

Preferring the Original and the Steady

Technology also creates the perception that faster is better than slower, newer is better than older. Quick repentance is prudent (Proverbs 28:13-14; Isaiah 55:6-7; 2 Corinthians 6:2), and a new heart and a new spirit are better than the old (Ezekiel 11:19; 18:31; 36:26), but, generally speaking, speed and novelty are not wise. How do passages like Psalm 27:14 ("Wait for the LORD") make sense to an impatient generation weaned on instant results? What taste does a society that hungers and thirsts for the new have for an old gospel that has never changed? A Bible that lists patience as a product of spiritual growth (Galatians 5:22) and advocates the original to the exclusion of the new-and-improved (Genesis 3:1-7; Galatians 1:8-9; 1 John 1:1-4) runs contrary to the spirit of the age.

All those things (and there are others) create the perception, albeit an unwarranted one, that the Bible has nothing to say to the modern generation. The values that accompany technology, progress, and innovation are turning biblical wisdom on its head; and, according to that thinking, the replacement doesn't look like folly at all.

Subversion of God

The most damning aspect of this modern, secularized religion is the subversion of God. As men continue to innovate for the sake of Progress, they produce new technologies that create the perception that man is pretty smart and God is pretty dumb. To many, the Bible is outmoded, outdated, and out of touch with reality. The new clerics are the scientists, the engineers, and the programmers.

Every new scientific and technological breakthrough reinforces the popular sense that salvation comes through human innovation. Human genius and hard work will overcome every obstacle. Conversely, God is marginalized, diminished, and ignored in the modern world.

Dr. Moira Gunn, host of NPR's *Tech Nation* and *BioTech Nation*, conducted a fascinating question and answer session with Dr. Gordon Moore at the 2007 Intel Developers Forum. At the end of the session, she gave him a refrigerator magnet that cited one of her basic tenets: "If God didn't make it,

it's Technology." You can't miss the intentionality of the capitalization in that sentence.

Dr. Gunn's dictum is nothing new or novel—it's as old as Romans 1:

For even though they knew God, they did not honor Him as God, or give thanks; but they became futile in their speculations, and their foolish heart was darkened. Professing to be wise, they became fools, and exchanged the glory of the incorruptible God for an image in the form of corruptible man. (Romans 1:21-23)

Belief in a god isn't wholly incompatible with this new form of religion, but it's a god without weight, power, or glory. The true God is kept at arms length, and technology keeps extending the arm. It offers distractions, entertainments, new gizmos and whiz-bangs, and all of it keeps the eyes of humanity diverted from the heavens and focused on the earth. Modern religion herds humanity into an ever-tightening circle, closer to the self and farther from the God of salvation.

The apostle Paul foretold the effects of this modern religion long ago:

But realize this, that in the last days difficult times will come. For men will be lovers of self, lovers of money, boastful, arrogant, revilers, disobedient to parents, ungrateful, unholy, unloving, irreconcilable, malicious gossips, without self-control, brutal, haters of good, treacherous, reckless, conceited, lovers of pleasure rather than lovers of God; holding to a form of godliness, although they have denied its power. (2 Timothy 3:1-5)

On one level, technology is morally neutral. Phones, computers, databases, silicon semiconductors, plasma televisions, and iPods are just wires, electricity, and bits of silicon encased in plastic—completely harmless. On another level, a more subtle level, pieces of technology carry beliefs like parasites; they create perceptions like clever magicians. Those beliefs, perceptions, and assumptions are not neutral—they breathe "according to the prince of the power of the air, the spirit that is now working in the sons of disobedience" (Ephesians 2:2).

Walking Carefully

As Christians, we walk a razor's edge—we are in the world but not of the world (John 17:11, 14). We use technology to work and develop and produce, but we must be wary of technology. Progress is not our god, innovation is not our salvation. We worship the Lord Jesus Christ and follow His Word, even though that puts us on a collision course with modernity.

But today's idolatry charms many Christians. Many find themselves subtly distracted and gently allured by the benefits, entertainments, and conveniences technology brings. Christians in the modern world must wake up and listen to an old warning:

Do not love the world, nor the things in the world. If anyone loves the world, the love of the Father is not in him. For all that is in the world, the lust of the flesh and the lust of the eyes and the boastful pride of life, is not from the Father, but is from the world. And the world is passing away, and also its lusts; but the one who does the will of God abides forever. (1 John 2:15-17)

Living in the world and using its technology is dangerous business. The forces that accompany technology are becoming more powerful, ubiquitous, influential, and consuming. But there is a God who stands above it all, watching it fade away, who will one day call every individual to account. "There is no wisdom and no understanding and no counsel against the Lord" (Proverbs 21:30).

When we realize it's all passing away, we'll anchor ourselves in the bedrock truth of the immutable God. We'll subvert the world and its wisdom with the true wisdom of God's Word. We'll proclaim the gospel of eternal salvation in Christ to a world that seeks temporal salvation in Progress. And we'll worship the unfading glory of the immortal God and scoff at the fleeting twinkle of the latest technological toy.

Soli Deo Gloria!

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[1] Gordon E. Moore, "Cramming more components onto integrated circuits," *Electronics Magazine* 38:2 (April 19, 1965), <http://download.intel.com/research/silicon/moorespaper.pdf>.

[2] Moore, "The Accidental Entrepreneur," Nobelprize.org (December 3, 2001), http://nobelprize.org/nobel_prizes/physics/articles/moore/index.html.

[3] Manek Dubash, "Moore's Law is dead, says Gordon Moore," *Techworld* (April 13, 2005), <http://www.techworld.com/opsys/news/index.cfm?newsid=3477>. Dr. Moore once asked renowned physicist Stephen Hawking what barriers existed that would limit the growth of the integrated circuit. According to Hawking, there are two—the speed of light and the atomic nature of matter. Researches are already looking for a way around those barriers.

[4] Michael Kanellos, "Gordon Moore on 40 years of his processor law," CNET News.com (April 7, 2005), http://www.news.com/Gordon-Moore-on-40-years-of-his-processor-law/2008-1006_3-5657677.html.

[5] *Jonathan Rauch*, "The Coming American Matriarchy: The fairer sex gets ready to take over," National Journal (January 15, 2008), reasononline, <http://www.reason.com/news/show/124402.html>.

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