



WISDOM: SKILL FOR LIVING IN A COMPLEX (TECHNOLOGY) WORLD

By Marjorie J. Cooper

Abstract: The purpose of this essay is to discuss the concept of wisdom as it is presented in Holy Scripture and applied to technology. No arena in the business world is in more need of the influence of godly wisdom than technological innovation, the applications to which it is assigned, and its impact on society. The building blocks of Christian maturity and wisdom in making ethical decisions in the development and implementation of technological innovation can be found in Scripture and are designed by God. First, the fear of the Lord entails humility that predisposes a person to learning wisdom. Then, diligent study of God's word results in a growing understanding that influences the Christian through a series of life's learning experiences. As time goes by, a history of exercising wisdom builds confidence grounded in a repertoire of lived-out choices and consequences. God's wisdom is the only way to ensure ethical decision-making in the face of new technologies; there are no short-cut formulas that magically identify and solve ethical dilemmas. However, Christians who follow God's path to wisdom find themselves in the position of offering moral influence in an ethically challenging business environment.

Introduction

In 1984, Apple's famous Macintosh commercial aired during the Super Bowl and Michael Dell launched Dell Computers. Both were important events in the evolution of technology. People who were born in 1984 will turn 34-years-old in 2018; yet from a technology perspective, they are living in a world completely

different from the world into which they were born. In 1984, a mere eight percent of US households had a personal computer. The World Wide Web was five years in the future, and much of home entertainment spending was for renting videotapes.¹ Technologies have certainly changed in 34 years, demonstrating the escalating cycle

of industry innovation and dissemination followed closely by obsolescence.

More than 80 years ago, Schumpeter wrote that such disequilibrium, this constant technological change and the societal change it portended, was an inescapable characteristic of entrepreneurial capitalism.² Vast technological changes occur even in one's own lifetime, and the cycle of change appears to be accelerating. Dramatic changes in technology inevitably diffuse into all areas of culture—economics, communications, education, politics, and even religious orientation—giving rise to moral debate and the need for discernment in decision-making. The complexity of change often confounds those whose circumstances demand adjustment, adaptation, and innovation if they are to survive and prosper in the face of extreme cycles of innovation, destruction, conflict, and renewal. Not only are present times exciting, they also can be disconcerting for Christians.

The purpose of this paper is to focus on the necessity for God's people to apply His wisdom to changing and demanding business conditions, particularly technological innovation and implementation. What does the Bible have to say about making good decisions under evolving technological discoveries and applications? Since it is impossible for Christians to prepare specifically for every unforeseen eventuality, they need the wisdom of God for insight and courage to be outspoken about possible technological abuses as they move forward into vast unknowns. Although human beings lack the power to see into the future and to calculate the long-term implications of their decisions, God is fully aware of every contingency and all ramifications of each potential decision. By walking in God's wisdom, Christian businesspeople marshal the confidence to make good choices in applications of technological innovation, such as data mining, social media, and artificial intelligence. Only godly wisdom enables Christians to be prepared for life's opportunities and threats.

The Need for Godly Wisdom

The world today, including the marketplace, is full of pitfalls and ethical compromises waiting to lure both the well-meaning and the deliberately unethical into the murky swamp of illicit and illegal behaviors. In his book *Why Smart People Make Bad Choices*, author Robert J. Sternberg, reviewing the cases of Bill Clinton and Monica

Lewinsky, Richard Nixon and the Watergate coverup, and Neville Chamberlain's disastrous pacification of Hitler, states that ". . . foolishness occurs in the interaction between a person and a situation."³ The problem is not that people get into trouble because they are unintelligent; they get into trouble because they make poor choices, choices that do not reflect the wisdom of God because either they have rejected God's word and his teaching or, as Christians, are unaware of how biblical teaching might apply in a given situation.

It is widely acknowledged that church-goers today are significantly more biblically illiterate than they were even a generation ago.⁴ Even evangelical Christians, who should know better, are more likely to embrace heresy than in the past.⁵ Technological innovation that leads to ethical

dilemmas coupled with unprecedented biblical illiteracy constitutes a recipe for poor decision-making on the part of Christians. As Scripture teaches, human beings are flawed and lacking in the ability to always correctly assess long-term outcomes (e.g. Ps. 14:1-3; Rom. 3:9-12; 1 John 1:8, 10). Thus,

the person who rejects the wisdom of God cannot help but make poor decisions in some areas of life, because it is the nature of fallen humanity to deviate from the ways of God. This is the case even if they know better, and much more the case if they are ignorant of what Scripture teaches.

Of course, ethical breaches are not new; history is littered with examples of immoral behavior. What is new are the multiple and unprecedented opportunities for technology to open the doors to behaviors that affect widespread swaths of society in ways previously unimagined. For example, Artificial Intelligence (AI) brings great advantages to medical practice, such as more precise diagnosing of disease. Yet AI also opens the door to rule-based medical care, where every case is diagnosed by algorithms, thus reducing or eliminating the benefits of customized care by physicians who have long-term relationships with their patients.

Genetic mapping allows more precision diagnostics in preventive treatment of diseases to which a patient is predisposed. However, legislation already has been proposed that would allow employers to collect genetic information on employees. Although it is currently illegal to discriminate on the basis of pre-existing conditions, one mere act of legislation has the potential to unleash health benefits discrimination in keeping with actuarial projections of medical costs associated with predicted diseases.⁶

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AI is also being used to create customized learning for individual students in the educational system. A diagnosis of a student's strengths and weaknesses at a designated grade level can assist in customizing content for maximum learning and educational progress. However, AI can also be used to program students with respect to values, ethics, and moral content. The issue of whose values then become embedded in educational programs is of significance for Christian parents. Although questions regarding whose values are taught in the classroom are not new nor necessarily related to technology, certain aspects of technology—for example, the widespread scope of technological reach and the rapid pace of new technology adoptions—may make the problem more acute and more resistant to ethical concerns and adjustments.

In the arena of social media, Facebook has suffered a PR backlash stemming from its failure to protect the privacy of 50 million Facebook users (and by extension the privacy of all their Facebook “friends”) because Facebook shared its data with Cambridge Analytica and neglected to monitor how the third-party used that data.⁷ According to Christopher Wylie, a data scientist at Cambridge Analytica, the usage of the Facebook data to target voters in the 2016 presidential election was a “grossly unethical experiment.”⁸ He admits that Cambridge Analytica engaged in message targeting to specific voter groups based on choosing ideas to which they would be susceptible, including framing, topics, tone, and various fear appeals. He further states that Cambridge Analytica is a “full-service propaganda machine.”⁹ In this way, news items, opinion editorials, blogs, advertising, and other kinds of information sources were selectively fed to certain target audiences to reinforce and even intensify their predispositions, while blocking content that might provide a more balanced point-of-view.

These are just a few examples of challenges being wrought by technology that call for advances in ethical thinking within the business community. Just as the Industrial Revolution resulted in changes to child labor laws, so the current revolutions taking place in technology portends a more thoughtful approach to technology implementation than simply, “If we can do it, we should do it.” Irina Raicu, who works at an ethics center in Silicon Valley, contends that although both law and ethics have some difficulties catching up with technology, the problem is not insurmountable. “Many technologists . . . are not encouraged to conduct that analysis, even superficially. They are not even taught to spot an ethical issue—and some (though certainly not all) seem surprised when backlash ensues against some of their creations.”¹⁰ For these reasons, more and more technology experts are calling for ethics awareness and ethics training in the context of emerging technologies.¹¹

Ethics training has been found to improve employees' sensitivity to ethical issues and companies' willingness to concern themselves with “doing the right

thing.”¹² Therefore, an increase in ethics training programs for technologists is one way of raising awareness and heightening sensitivity to ethical issues. Others suggest a code of ethics to govern all internet content.¹³ The advantage of a common code of ethics would be standards that are known by all content purveyors; but the disadvantage is that a one-size-fits-all approach invariably advantages some business models over others and often fails to fit some business's circumstances. Additionally, numerous ethical situations arise from other types of technological advance besides internet technology, such as those already mentioned that confront the medical profession.

Although these and other suggestions help provide a way forward, they often do not answer the most important ethical questions—questions that depend upon one's value system for resolution. Some examples might be:

- “If our company is more profitable using practices that violate privacy, why shouldn't we use those practices? Maybe society needs to change. After all, I'm maximizing shareholder value.”
- “If it isn't illegal, there is nothing to stop us from doing it.”
- “If I can conceive of an innovative technology, who's to say I shouldn't develop that technology?”
- “Human workers are like our machines; our job is to make operations as efficient as possible. When a machine becomes obsolete and cannot do the job efficiently, we replace it. We should do the same with people that are obsolete.”

The press for a moral compass that will help society grapple successfully with such problems surprisingly has led some to call for a return to religion. For example, one author writes, “Here's where science comes up short. The answers can't be gleaned from any social data set . . . But they just might be found in the Bible. And the Koran, the Torah, the Bhagavad Gita, and the Buddhist Sutras. They're in the work of Aristotle, Plato, Confucius, Descartes, and other philosophers both ancient and modern.”¹⁴ In light of the history of human conduct, surely one must be forgiven for thinking this approach might be unwieldy at best and disastrous at worst, relying in some cases on mutually contradictory belief systems. Still, Holmes is correct that ideas such as the “Golden Rule and the sacredness of life to the value of honesty and virtues of generosity”¹⁵ represent commonalities on which most can agree and which might be a good starting place.

Nevertheless, for important moral questions, such as those above and others like them, Christians can bring a unique perspective to the identification, analysis, and implementation of measures to act more ethically that is grounded in the wisdom found in the Scriptures. Because the character of God constitutes the basis for morality,

AS AMBASSADORS OF CHRIST, CHRISTIAN BUSINESS-PEOPLE SHOULD APPROACH TECHNOLOGY AS A MEANS OF DISSEMINATING GOD'S REDEEMING CARE TO ALL CREATION, RATHER THAN APPROACHING TECHNOLOGY AS A MEANS FOR REALIZING SELFISH AMBITIONS.

Christians who faithfully dwell on the revelation of God in Scripture can bring unique insights to the creation and disposition of technologies that impact the social order.

Some Theological Frameworks for Wisdom

It often appears that Christians are no better at making good decisions than non-believers. This is probably because Christians can become so immersed in their culture that they naturally follow the wisdom of the culture rather than the wisdom of God—that is, unless their minds have been disciplined to think theologically rather than react according to cultural expectations and/or their fallen dispositions. Psalm 1 says of the committed follower of Yahweh that “his delight is in the law of the Lord, and in his law he meditates day and night” (v. 2), indicating habitual reflection on the Scriptures and what can be known of God, his creation, and the world system in which humans interact.

There are some consistent theological constructs repeated over and over in the Scriptures that have widespread application and that should inform discussions of ethical dilemmas that arise from technological innovation. For example, a theologically balanced understanding of the character of God is critical. People often view God as so loving that anything goes provided one is sincere in one's beliefs—thus, justice is overwhelmed. One implication of this misperception would be that any sort of technological program to which one sets oneself is perfectly acceptable if one is sincere and blameless in the imagined applications. The idea that a technological application might violate God's justice is foreign.

Because God is the Creator and human beings are made in his image, it is not only understandable but arguably necessary that they too are driven to discover and create within the scope of their ability. However, this fact challenges the frequent practice of innovation divorced from moral groundings, because God and his standards should be an integral part of the innovation process—that is, all innovation inherently should have a moral awareness guiding its development. Builders of the Tower of Babel undoubtedly viewed themselves as innovators of new technology; unfortunately, their motives were revealed as

self-serving and anti-god (Gen. 11:1-9). If they had considered carefully God's perspective on their endeavor, they could have avoided his judgment.

For such reasons, each stage from idea generation to implementation necessarily should include the “what ifs” that govern possible misuse of the innovation and/or unintended consequences that might arise. Unfortunately, it seems to be human nature to become so enamored of an innovative idea that thoughts of negative outcomes are quickly brushed aside in the enthusiasm to “sell” others on the idea. Ego and personal aggrandizement take over; moral footing is lost in the excitement. Other reasons for moral lapses may include ignorance of possible outcomes from the technology; lack of facility in moral reasoning; self-serving motives for pushing the technology forward; or a utilitarian belief that one is serving the “greater good.”

Human beings are creative because they are made in the image of God (Gen. 1:26-27). Not only were human beings made to reflect the creativity of God through innovation, but they were also intended to carry out the redemptive purposes of God throughout the earth (2 Cor. 5:20). As ambassadors of Christ, Christian businesspeople should approach technology as a means of disseminating God's redeeming care to all creation, rather than approaching technology as a means for realizing selfish ambitions.

This leads us to another fact of wisdom—not a pleasant one but a necessary one—that human beings are fallen. In fact, the Bible teaches that, as a race, humans are evil. Ecclesiastes 9:3 tells us that “the hearts of the sons of men are full of evil and insanity is in their hearts throughout their lives.” Rather than expecting that humans will make good, moral choices, we should expect that if there is some way to turn a good technology into an instrument of destruction, humans will find a way to do it. Such a perspective could be construed as negative thinking, but the Christian ought to understand that anticipation is the first step toward prevention of abuse. Furthermore, Christians should be the most realistic of all people, because they should recognize the repetition of human failure and disobedience delineated in Scripture. When negative consequences are anticipated in advance, moral guardrails and disincentives for technology abuse can be put in place. Honest and open brainstorming about the possible misuse of technological innovation enables managers to

identify illicit use and put safeguards in place to prevent such misuse. Christians usually acknowledge in theory that human beings are fallen, but they also often ignore that fact, proceeding as if all is well and casting blame on anyone who tries to warn of the dangers.

Although Christians may admit that human beings are flawed and disposed to resist the wisdom of God, the problem does not stop there. This world is characterized as Satan's system—his political, economic, governmental, social, and religious system. In John 14:30, Jesus tells his disciples, "I will not speak much more with you, for the ruler of the world is coming, and he has nothing in me." Later in John (16:11b), "... the ruler of this world has been judged." Jesus clearly attributes the rulership of this world to Satan, and warns his disciples (John 15:18) that "if the world hates you, you know that it has hated me before it hated you." Paul cautions believers in Eph. 6:10-18 that they are in a battle and for that they must use the appropriate armor, for which the wisdom of God is a summary reference. For these reasons, the world will not joyfully embrace Christian values. There may be a cost incurred when technology is critiqued by the values of a 2,000-year-old religion. Some—likely, much—pushback is to be expected: ridicule, anger, disbelief, and frustration at blocking "progress."

Finding Wisdom

God's wisdom is a resource available to all believers in Jesus Christ. In addition, God has commanded us to appropriate his wisdom, and he has promised to make it available to us if we ask in faith (James 1:5-8). James, however, does caution against being double-minded—that is, of two minds. We cannot serve God in faith and, at the same time, cling to the principles of the world's judgment—hedging our bets, so to speak. As Christian businesspeople consider the feasibility and potential payoffs of various development projects, no factor is more critical in that assessment than the need to follow faithfully God's priorities and commandments as well as his warnings as applied to any human endeavor.

The Bible tells us that "The fear of the Lord is the beginning of knowledge: Fools despise wisdom and instruction" (Prov. 1:7). Thus, the fear of the Lord is a prerequisite for attaining wisdom and its accompanying assets. The fear of the Lord signifies a humble spirit, a willingness to be instructed and to learn. It is the opposite of the fool, who

"despises wisdom and instruction" (Prov. 1:7) and plunges heedlessly ahead with his or her project.

For example, sophisticated innovations, such as driverless cars, robotics, and drone technology, are often the products of highly intelligent, gifted scientists and engineers. The breathtaking creativity behind new technology, however, should equally be directed toward anticipating misuse and toward grounding technological theory in sound, biblical judgment. Even geniuses need to humble themselves before the wisdom of Almighty God.

The Bible makes clear the importance of acquiring knowledge and understanding for everyone with no exclusions. The entire chapter of Proverbs 2 declares the benefits of pursuing wisdom through instruction in the word of God. For example, verse 3 promises discernment, so readers won't be the victims of fraud and deceit. Verse 6 promises that the Lord gives wisdom through knowledge and understanding to those who choose to walk uprightly in his ways. God becomes a shield, a protector, for

his followers (v. 7b), and he guards the ways of justice on their behalf (v.8). Verse 9 reiterates that those who pursue wisdom will have the ability to discern what is right and just, so that (v. 11) God's people can exercise discretion, avoiding various kinds of evil and perversity as well as the traps and temptations that evil people lay before them.

In contrast, the first chapter of Proverbs warns of the consequences for "scoffers" and fools who "hate knowledge" (Prov. 1:22). The writer of Proverbs under the inspiration of the Holy Spirit reminds readers that if "fools" persist in neglecting God's counsel, hating knowledge, and ignoring reproof, calamity will befall them (vs. 26-32). At that time, they will call upon the Lord and he will refuse to help them. No matter how successful a businessperson, scientist, engineer, or entrepreneur may be, the person who neglects the wisdom of God is a fool.

Practicing Wisdom

Where wisdom is exercised, good character and moral behavior emerge. Psalm 19:9 tells us that "The fear of the Lord is clean, enduring forever; the judgments of the Lord are true; they are righteous altogether." With wisdom also comes other desirable traits. Here in Ps. 19, the psalmist celebrates moral purity. Verse 11b reminds readers that "Moreover, by them thy servant is warned," so that not only is the Christian's testimony preserved and the Lord honored but the one who acts wisely serves as a warning to others.

WHEN NEGATIVE CONSEQUENCES ARE ANTICIPATED IN ADVANCE, MORAL GUARDRAILS AND DISINCENTIVES FOR TECHNOLOGY ABUSE CAN BE PUT IN PLACE.

Proverbs 8:13 tells readers that “the fear of the Lord is to hate evil; pride and arrogance and the evil way and the perverted mouth, I hate.” Wisdom changes character for the better, and those changes will be reflected in decisions by businesspeople and scientists who innovate new technology. “The fear of the Lord is the instruction for wisdom, and before honor comes humility” (Prov. 15:33). The fear of the Lord brings perspective on oneself and one’s limitations and failures. By cultivating wise humility, the Christian businessperson can have a realistic understanding of how his or her influence might be used to promote the common good through various innovations and technology improvements.

Sometimes, however, business and technology fail to recognize their God-given responsibilities to promote human flourishing. J. Michael Pearson, CEO of Valeant Pharmaceuticals, may be the current poster child for Big Pharma’s greed. Pearson unequivocally defends unethical pricing policies. In fact, Valeant in recent years raised the price on several essential drugs by as much as 800%. Pearson proclaims, “We’re in the business of shareholder profit, not helping the sick.”¹⁶

Pearson is not alone. Heather Bresch, chief executive officer of Mylan, which owns EpiPen, testified before Congress defending the company’s outrageous price hikes on its EpiPen product. EpiPen is the go-to product for life-threatening allergic reactions; yet the product which costs about \$30 to produce now goes for over \$600 before coupons or rebates.¹⁷ Contrary to inventive rationalizations by business executives, the Bible still promises blessing to those who fear the Lord and who choose to follow the wisdom of God (Ps. 128:1). Realistically, taking an ethical posture in the use of technology could result in shareholder criticism and loss of market share. However, it is equally possible that the opposite effects could obtain: loyal customers and enhanced reputation in the marketplace. Such is the case for Chick-fil-A, a company that generates more revenue per restaurant than any other fast-food chain in the US.¹⁸

A Protocol for Application

The following is a summary protocol for surfacing ethical concerns pertaining to innovative technology. Drone technology will be used briefly as a representative example. However, this section is prefaced with the caveat that appropriation of the wisdom of God is essential for truly ethical outcomes. There is no innovation evaluation system that will serve up unequivocally redemptive benefits unless the parties involved are aware of and in submission to God’s wisdom.

Eliyahu Goldratt’s *Thinking Processes* are recommended as the most rigorous system of evaluating human decision-making available to business today.¹⁹ These tools are meant to be used by groups to analyze business problems. However, they have also been used successfully

in non-profit organizations, educational institutions, and individual counseling sessions. A two-step approach to the *Thinking Processes* using only two of the tools would offer significant enrichment of new technology planning and development. The methodology may be illustrated below:

Step 1 – Evaporating Cloud Conflict diagram

Identify possible conflicts and to articulate a clear understanding of the desired effects of the technology that are giving rise to the conflicts.²⁰ For example, drones can be used to fight crime by filming aerial video with high-powered cameras.²¹ Such usage, however, introduces legal issues with respect to privacy concerns. Thus, the conflict is that society wants law enforcement to catch criminals but does not want law enforcement to spy on law-abiding citizens. To break the conflict, one proposed solution is more restrictive privacy legislation with respect to public air space.²² However, there are negative outcomes from increased legislation, such as inhibiting search and rescue efforts.

Step 2 – Future Reality Tree

After analyzing each conflict with the Evaporating Cloud technique, identifying the legitimate benefits sought that are in each conflict, and the possible solutions that might solve the conflict, a Future Reality Tree should be constructed.²³

A Future Reality Tree begins with potential solutions to each core conflict and is a cause-and-effect diagram constructed to show the outcomes that logically derive from implementing each of these possible solutions to the conflicts. Any outcomes, both positive and negative, that could logically arise from the proposed solutions must be included in the Future Reality Tree, including ethical dilemmas. Scheinkopf writes of the Future Reality Tree that it is useful “when you want to explore the potential effects of an idea before implementing it.”²⁴ Thus, the second step in the protocol allows participants in the planning process to surface and explore not only the problems but also the positive and negative effects of proposed solutions.

For drone technology, logical outcomes of increased privacy legislation might include hampering law enforcement and search-and-rescue efforts or infringing on the Second Amendment. Often the Future Reality Tree enables participants to anticipate and solve potential negative effects to the proposed solutions before a disastrous implementation takes place.

Step 3 – Ethical dilemmas solutions

The third step in this protocol for Christians who are attempting to exercise faithful adherence to the wisdom of God would be to carefully examine the ethical dilemmas that have surfaced either in the Evaporating Cloud conflict diagram or in the Future Reality Tree as negative outcomes to proposed solutions. Solutions to ethical dilemmas can

be mapped into a Future Reality Tree, just as any outcome. The difference would be that Christians intentionally offer redemptive solutions that are given priority in the planning process to any potentially negative outcomes. For drone technology, one long-term solution seems to be drones that are programmed for human-defined courses of action to address privacy concerns.²⁵

Conclusion

The Hebrew word for wisdom is *hokmâh*, and it means “a skill for living.” The teaching involved constitutes timeless principles for living well in a flawed world, a world that can be hostile to Christian values. These are principles that do not become obsolete, even in today’s sophisticated business and technology environment, because they are grounded in the wisdom of God, the Eternal and Immutable One. To illustrate the differences, Scripture contrasts the ways of the fool and the ways of the wise: The wise show obedience to the precepts and commandments of God that lead to successful living, but fools make poor choices that lead to destruction and misery. Nowhere is the potential for widespread destruction and misery more evident than in the development and application of new technologies.

A useful protocol for assessing potential benefits and problems with technological applications is to use Goldratt’s Thinking Processes, specifically the Evaporating Cloud technique and the Future Reality Tree. Christian businesspeople, engineers, and developers should integrate into their analysis God’s wisdom with respect to the sinful predisposition of all humans to ruin God’s good gifts. Similarly, ethical dilemmas should be addressed through a framework that allows for and rewards solutions that are redemptive for human flourishing under God.

About the Author



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NOTES

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