

# Technology *and* Religion

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# Technology *and* Religion

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REMAINING HUMAN IN A  
CO-CREATED WORLD

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 Contents

Preface	vii
Chapter 1: Of Morals and Machines	3
What Is Technology?	8
The Idea of Creation	10
Making High-Tech Choices	17
Chapter 2: Healing or Enhancing?	21
Genetics, Stem Cells, and Cloning	22
Pharmaceuticals	34
Bionic Men and Women	45
Chapter 3: Cyberspace on Our Minds	56
Human and Artificial Intelligence	57
Playing Games in a Virtual World	69
Relationships in Cyberspace	78
Chapter 4: The New Alchemy	91
Nanotechnology	93
Genetically Modified Crops	102
Energy Technology	112

vi : CONTENTS

Chapter 5: Technology Goes Global	125
Religious Responses to Globalization	130
Relationship and Responsibility	135
Appendix	141
Notes	145
Index	161

 Preface

TECHNOLOGY IS a rapidly changing field. Each day brings news stories of the development of new technologies. Yet the questions and concerns that surround these technologies are perennial. We ask today what is lost when our children turn to Facebook as a favored method of communication; a recent article in *The Atlantic* titled “Is Google Making Us Stupid?” questions whether the Internet is changing both the way we read and the way we think, making us less inclined to deep thought and reflection.<sup>1</sup> Plato asked the same questions 2,500 years ago, addressing the then-new technology of the written word:

It will introduce forgetfulness into the soul of those who learn it: they will not practice using their memory because they will put their trust in writing, which is external and depends on signs that belong to others, instead of trying to remember from the inside, completely on their own. You have not discovered a potion for remembering, but for reminding; you provide your students with the appearance of wisdom, not with its reality. Your invention will enable them to hear many things without being properly taught, and they will imagine that they have come to know much while for the most part they will know nothing. And they will be difficult to get along with, since they will merely appear to be wise instead of really being so. (*Phaedrus* 275a–b)

The more things change, the more they stay the same.

Technology is also an extremely broad field. It is impossible in a single book to cover the gamut of new technologies and their implications for ourselves and our world. I have attempted in this volume to address a wide variety of technologies, dividing the field into three categories: technologies of the human body, technologies of the human mind, and technologies of the external environment.


I have written the bulk of this book while serving as a Fulbright scholar in Sarajevo, the capital of Bosnia and Herzegovina, a city that has historically inhabited the borderland between Christian West and Muslim East. As I type, I listen to bells from both Catholic and Orthodox cathedrals, ten minutes down the hill from my apartment, to be followed by the call of the muezzin from the five mosques I can see from my front porch. In the spirit of Sarajevo, I have considered the impact of our new technologies from Christian, Jewish, and Muslim perspectives. Many of the chapters of this book have been delivered as lectures at the Franciscan Seminary of Sarajevo and the Faculties of Philosophy and of Islamic Studies, both at the University of Sarajevo, and have benefited from comments and criticism from my students and fellow faculty members. I have also benefited from the insights of my colleagues at St. John's University; I would like in particular to thank Fr. Roger Kasprick, Nick Hayes, Bernie Evans, Ernie Diedrich, and Chuck Rodell for sharing their expertise on particular sections.

Who are we as creative creatures fashioned in the image of a creator God? How can we best channel our creativity in order to serve God and our neighbor and to exercise responsible dominion over nature? What are our responsibilities in a rapidly globalizing world? The technologies examined in the following pages will continue to change. But the questions they force us to ask will remain.



# Technology *and* Religion



 CHAPTER 1  
Of Morals and Machines

FEW TECHNOLOGIES are simpler than a flashlight. But for rural Africa, the rechargeable flashlight—called a “solar”—has turned out to be a revolution. Much of Africa lacks sufficient electricity, and electricity is almost nonexistent in rural areas. In 2004, the United Nations estimated that only 20 percent of Africans (excluding Egypt and South Africa) have access to electricity, only 2 percent in most rural areas. This makes a flashlight a life saver. Peter Gatuoth, a Sudanese refugee, writes, “In case of thief, we open our solar and the thief ran away. If there is a sick person at night we will took him with the solar to health center.” In African homes, children rely on the solar to study for school at night. It replaces the wood, charcoal, and kerosene that smokes up huts and causes respiratory problems. Solar flashlights do not address the entire energy puzzle for Africans, but they do show how a small technology can improve a slice of African life and do so without disrupting the environment or family traditions.<sup>1</sup>

China faces a similar power shortage for its rapidly industrializing and growing population. One solution to its energy crisis is a leviathan compared to distributing solar flashlights. On completion in 2009, the Three Gorges Dam on the Yangtze River will be the world’s largest producer of hydroelectric power. The dam’s thirty-four generators will pour out as much power as eighteen nuclear power plants. In all, China plans twelve such plants in the Yangtze basin. They are expected to reduce China’s heavy dependence on coal, currently the source of 67 percent of China’s electricity, and

thus reduce a chief source of pollution. Unlike a flashlight, however, the price for this electricity will be high for the nation's traditions. As it approaches completion, Chinese officials admit that the Three Gorges Dam project may spawn more problems than it solves. Since its proposal, officials have known that the dam would displace a lot of people—1.3 million have already been relocated. It now appears that the dam will affect hundreds of thousands more. Ecological concerns abound. The dam seems to be destabilizing the surrounding hillsides, causing landslides and displacing farmers into higher regions, leading to further erosion. The reservoir will inundate villages and industrial sites, causing an accumulation of industrial toxins and human sewage in the water, pollutants previously flushed out by the moving river. The most lasting impact will be on the preservation of China's long and illustrious history. As many as 1,300 archeological sites will disappear forever once the reservoir fills. And the beautiful scenery of the Three Gorges will be forever changed. The Three Gorges Dam is a triumph of technology and yet a harbinger of a new set of human misfortunes.

From Africa to China, technology reveals its benefits and its costs. What we hear about most are the benefits. Those who hold a stake in the development or dissemination of a new technology, the engineers and entrepreneurs, and the politicians and journalists they influence, tend to focus almost exclusively on the benefits, often resulting in a breathless sort of boosterism, a promise that the technological future will be nothing but rosy. According to this view, technology can solve most of our economic and social problems. Technology brings order to the chaos of the natural world. It is the key component of progress. One of the chief oracles of this gospel of progress is Bill Gates, the brilliant founder and ex-chairman of Microsoft. The world is "getting better," he recently told world economic leaders. Women and minorities have advanced, life expectancy has skyrocketed, and more people have a democratic voice and freedom. According to Gates,

These improvements have been triggered by advances in science, technology, and medicine. They have brought us to a high point in human welfare. We're really just at the beginning of this technology-driven revolution in what people can do for one another. In the coming decades, we'll have astonishing new abilities: better software, better diagnosis for illness, better cures, better education, better opportunities and more brilliant minds coming up with ideas that solve tough problems.<sup>2</sup>

Gates sees technology as the means to save the world. Like many who are uncritical of technology, he admits that current technologies have brought some social and economic challenges, yet he believes that solutions for these, and all other difficulties, can be found in further technological development.

Not all who are familiar with high-tech industry take as rosy a view. Bill Joy, the former CEO of Sun Microsystems, warned of the dangers of out-of-control technology in a 2000 *Wired* magazine article, "Why the Future Does Not Need Us." Joy is particularly concerned about the rapid development and convergence of robotics, genetic engineering, and nanotechnology. To the shock of *Wired* readers, he called for a moratorium. As he says,

We are being propelled into this new century with no plan, no control, no brakes. Have we already gone too far down the path to alter course? I don't believe so, but we aren't trying yet, and the last chance to assert control—the fail-safe point—is rapidly approaching. . . . The experiences of the atomic scientists clearly show the need to take personal responsibility, the danger that things will move too fast, and the way in which a process can take on a life of its own. We can, as they did, create insurmountable problems in almost no time flat.<sup>3</sup>

Like many who focus on the downside of modern technology, Joy sees only problems ahead. He asks the impossible, that societies on a global scale agree to give up the short-term benefits of several technologies in order to safeguard the future.

Between these two extremes—that technology is entirely beneficial or entirely detrimental—is a third stance that is equally problematic. This voice declares that technology is morally neutral. The surgeon and Jack the Ripper give the knife its good or evil role—in short, a machine does not have moral agency. As the National Rifle Association slogan goes, “Guns don’t kill people; people do.” While this seems like common sense, the claim of moral neutrality is not entirely true. Modern technology does possess a certain amount of agency. Consider, for example, robotics and artificial intelligence. While a robot is indeed programmed by a human being, it is impossible for that human to understand and foresee each action the robot will subsequently take.

While this might be considered an extreme example, the problem casts a wide net. In a conflict situation, the presence of “neutral” guns does, in fact, increase the likelihood of death. The abundance of technology may also override many of our human choices. The New England transcendentalist Henry David Thoreau, writing in his cabin by Walden Pond in 1854, lamented: “We do not ride on the railroad, it rides upon us.”<sup>4</sup> Thoreau chose not to ride on the railroad, but he could not remove the railroad—visible from his rustic hovel—from his community nor turn the landscape back to how it was before the tracks were laid. Similarly, we are only now seeing the social and environmental costs of the American love of the automobile.

Beyond environmental changes, every new technology also displaces an older one, often making the older technology no longer available. As Muslim philosopher Muzaffar Iqbal recently noted, “I cannot travel on camel to go to the haj as my grandfathers used to do.”<sup>5</sup> This lament could sound sentimental; few really wish to return to an earlier time. But the point is valid enough. The losses

caused by technology are usually seen only in retrospect, when we find that a new technology did not take into account all our values and intentions and the loss may be irreversible. For these reasons, technology is hardly a neutral matter. “It is a power endowed with its own peculiar force,” writes Jacques Ellul, a French philosopher who has shaped much of the modern debate over technology. “It refracts in its own specific sense the wills which make use of it and the ends proposed for it. Indeed, independently of the objectives that man pretends to assign to any given technical means, that means always conceals in itself a finality which cannot be evaded.”<sup>6</sup>

Technology is here to stay. We have always been creators of technology, from the first hurling of a stone at an animal in order to produce lunch or the first rubbing of two sticks or striking of flint against stone to create and harness fire to cook that lunch. We cannot escape technology. Yet we also should not blindly espouse every technology that comes down the pike. To choose which technologies serve us well and which do not, we need a way to assess them critically. The assessment must look at both the tool itself and the society in which it will be used. That, in turn, will require a clear grasp of who we are as individuals and societies and the values that we want to live by. This is where religion, a chief source of our cultures and values, plays an essential role in our discussion of technology.

Our religious communities preserve the wisdom of our forebears on questions of who we are and what we value. They also provide a locus for discussion in the context of worldwide communities of faith. Like technology, religion is also here to stay, despite the predictions of early twentieth-century intellectuals—Karl Marx, Sigmund Freud, Friedrich Nietzsche—to the contrary. In fact, as our devotion to science and technology grows, so it seems does our religious devotion. In the U.S., three times as many people regularly attend religious services today as compared to when the nation was founded. Technology and religion are growing hand in

hand. Both form our worldview, our vision of who we are, our place in the world, and future trajectory. Thus, it makes sense to look at the two together.

### WHAT IS TECHNOLOGY?

Technology has one purpose—to change the world, to reshape ourselves or our environment. Through technology, we seek to stay safe from the elements, from predators, to make our lives longer and more comfortable. Yet modern technology goes beyond this defensive role. Through processes such as genetic engineering or nanotechnology, we seek not only to make our lives safer and easier but also to create things that are entirely new, in *Star Trek* terminology, “to boldly go where no man has gone before.”

The word *technology* comes from the Greek word *techne*, which translates to mean craft, art, or knowledge. In other words, *techne* is about more than tools. Technology is not just the machines, chemicals, or instruments we use but also the techniques, processes, and methods by which we use them. But these processes do not exist in a vacuum. Technologies define a large part of the society that uses them while they are at the same time developed by that society. Thus, *techne* has three elements to it—tools, processes, and a social context.

On first glance, *techne* and modern technology look much the same, yet modern technology is substantially different from the *techne* of the ancients. Social critic Neil Postman emphasizes this distinction in his popular work *Technopoly: The Surrender of Culture to Technology*. Unlike the ancients, he says, modern Western culture has engaged in “the deification of technology, which means that the culture seeks its authorization in technology, finds its satisfactions in technology, and takes its orders from technology.”<sup>7</sup> The tools of *techne* solve pressing physical problems in the production of food, clothing, and shelter. They aided in our ancestors’ survival but did not play a major role in their understanding of the world and their



place in it. These tools were not central to the thought world of the Greeks. In today's world, technology is central to our understanding of ourselves and the environment around us. Postman believes technology has, in fact, come to monopolize that understanding. Given the tremendously large role religion and religious identity still play in the modern world, I would suggest that our technological worldview has no monopoly but stands together, sometimes in tension, sometimes in harmony, with our religious understandings. But technology plays an undeniably greater role in our lives than it has at any previous time in human history.

That greater role is also seen in the power to create something new, a quest that was less prominent in ancient *techne*. To create the new is to go outside of nature. In his essay "The Question concerning Technology," the German existentialist Martin Heidegger observes that the ancient craftsman certainly made something new when he constructed a chair. A doctor might bring new health to a patient. However, neither imposed a new form on nature; rather, each worked with what is already implicit in the wood or the body. The wood of the chair is still wood and will rot just as would a log in the forest. The body returns to the natural healthy condition. In contrast, a genetically engineered human or a chimera that is half sheep and half goat is outside of its natural order. By its genetic alteration, the "geep" will never again produce a sheep or goat. Humanly extracted plutonium never returns to the uranium from which it was derived. The new products of modern technology do not simply "disclose" or shape nature but transform and replace nature.<sup>8</sup> In this way, modern technology gives us heretofore undreamed of power.

Faced with these prospects, it behooves us to bring the best of our wisdom to bear in selecting and using technologies. The French thinker Ellul, a critic of what he calls the modern technological tyranny, has composed a list of "76 Reasonable Questions to Ask about Any Technology" (see appendix). The list includes ecological, social, practical, moral, ethical, vocational, metaphysical,

political, and aesthetic considerations. They are insightful questions, and well worth consideration. But few are likely to take the time to consider such an extensive list. Rather than add a tenth category of religious questions, we can find in our religious traditions a shorter list of more general concerns, a list that subsumes many of Ellul's categories.

### THE IDEA OF CREATION

A commonality in how the monotheistic faiths—Judaism, Christianity, and Islam—approach technology springs from the book of Genesis, where the human project is so poetically introduced. In the first chapters of this book, we find two stories of creation. These stories attempt to teach a basic understanding of who we are as humans and what our place is in relationship to the rest of the created world. They are also stories about the act of creation, of bringing order out of chaos, and technology is at root a creative activity, one that brings order to the material world. Thus, there is no better place to begin a consideration of technology in a religious light than “in the beginning.”

The creation of human beings is described in Genesis 1:26–28:

Then God said, “Let us make humankind in our image, according to our likeness; and let them have dominion over the fish of the sea, and over the birds of the air, and over the cattle, and over all the wild animals of the earth, and over every creeping thing that creeps upon the earth.” So God created humankind in his image, in the image of God he created them, male and female he created them. God blessed them, and God said to them, “Be fruitful and multiply, and fill the earth and subdue it; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth.”