James Jones

David F. Noble's The Religion of Technology

Who wouldn't want to be God? He is all-powerful, he is never wrong, and he knows everything there is to know. These supreme powers coincide with the goals of many an ambitious engineer. We create technology to manipulate matter, alter life, and increase our understanding of the world we live in. These have been the goals of scientists and engineers for centuries. David F. Noble claims that we seek these powers to regain the perfection we lost when man was banished from the Garden of Eden and to bring ourselves ever closer to god. The technology humans have created has brought us more and more control over the natural world, but is it really our destiny to become one with God? Is this really what we are striving for? The author seems to think so.

I chose to read this book because of the conflict it seemed to present. As far as I can see, science today seems to be positioning itself as the anti-religion. Science places pure belief without proof in the same camp as superstition, or at least that is what I have come to understand from my encounters with it. As the battle between creationism and Darwinism rages on, it appears as if these two groups will be forever at odds. Yet on second thought I remembered that the United States was supposedly the most technologically advanced nation in the world, and we still buy and sell goods with money that announces we are one nation, under god. I myself am an engineer who believes in the general ideas behind Christianity, and many of my fellow classmates are far more devout from me. There appears to be some contradiction here. I hoped in reading this

book I could find some kind of the connection between technology and religion. Of course this is exactly what happened.

The book takes the reader through time, following the great inventions as it goes. At least one great thinker from each age of history since the Roman times is covered, and for each one mentioned, their connection to religion is shown. For example, it is said that "for Newton … to uncover the hidden logic of the universe as to understand and in that sense identify with, the mind of its Creator (p. 65)." Although it is rarely mentioned in textbooks (and rightly so, it is completely irrelevant to the subjects), the fathers of science were all seeking to understand God through the careful study of his great works; namely the physical laws of the universe. This sets forth Noble's first main argument: Science is man's way of seeking to understand his creator.

Those early scientists sought more to understand God than to imitate him. Later, more advanced engineers would view themselves nearly as God's equal. This was most likely because they reveled in the immense amount of power they had obtained through their discoveries. The inventors of the atomic bomb are an interesting case. "As those who discovered and could unleash nuclear energy on the world, the atomic scientists and engineers viewed themselves, in an almost divine light, as the veritable saviors of mankind (p. 105)." The engineer/physicist Leo Szilard, who was the first man to conceive the possibility of a nuclear reaction, saw it as the most important gift he could give to mankind. He hoped nuclear power would enable man to leave the earth and the solar system, which he saw as our destiny. It is not clear whether he had a full

understanding of the implications of his discovery, but he obviously thought the risks of nuclear power were outweighed by its benefits. Other engineers and physicists who worked on later military nuclear projects, especially the Hydrogen bomb, saw nuclear Armageddon as inevitable. Many who were religious saw it as the event foretold by the book of Revelations, which predicts the end of the world as we know it. This was encouraged by the similarities between the mushroom cloud explosion of the atom bomb and the fires the book described. Many religious zealots of the time welcomed the expedient extermination of mankind via nuclear arms since it would hasten the arrival of the new age in which Christ would rule as king over all of earth for 1000 years. For these people developing weapons of mass destruction was not immoral. They were simply fulfilling their destiny.

Close on the heals of the nuclear physicists were another group of people who though they were following God's plans for humans by developing their technology for the military. Wernher von Braun, a rocket scientist who originally developed the rockets used by the Nazis in World War II, became a born again Christian when he was brought to the United States after the war. He believed it rockets would eventually propel man on his return to paradise and that sending a man to space was simply the first step. Noble suggests that this was the reason behind the enthusiasm for the space race. Unmanned spacecraft could have just as easily fulfilled he military's need for testing weapons delivery systems her argues. Putting a man in space was a deeply religious goal for many people. It was man's return to the heavens. Compared to this lofty goal, the side effect of developing weapons systems was a small moral payload for the engineers to deal with. Their goals were far more important than the petty conflicts between mortals. This view

was encouraged in the military and later by NASA. Perhaps this was purposefully done to keep the workers distracted from the goals of their superiors.

When the author reaches computers and the technology that followed them, his discussions of the religious aspects of technology become less focused on Christianity. Since the beginning of computing, there have been people seeking to create an artificial mind. The author talks about this in depth. One of the things he mentions is the question of whether or not this artificial intelligence would have a soul. The soul is an important concept in many religions. If something has intelligence, does it mean it has a soul? If so, would this soul outlast the intelligent machine? One of the topics covered is the idea of transferring one's mind onto a machine, and thereby becoming nearly immortal. If this were to happen, would the soul be transferred to the machine as well? Would this machine be an example of artificial intelligence? These are questions the author, to my dismay, spends very little time on.

Personally, I am undecided on what exactly a soul is. I am of the belief that artificial intelligence will always be very much artificial since I do not believe we have the ability right now to create anything that could resemble a soul. A soul does not appear to be tied to any physical thing, so it cannot be represented by the Boolean networks and memory banks computer scientists have labored on so carefully over the years. However, I think it has a big part to do with our intelligence, especially the part that decides whether or not a course of action is moral. Following this idea, I don't believe we will ever be able to create an artificial intelligence of the type the scientists in the field envision. There will probably soon be technology that very closely imitates human thought in many fashions. There are already a few computers that do well in the

Turing test, which challenges a computer to carry on a conversation as well as a human.

I also don't think we will ever develop a machine we can transfer our consciousness to

for similar reasons.

In the last sections of the book, while he is covering genetic engineering and

artificial life, the author talks of modern engineers as being the closest man has ever

gotten to his Creator. I agree with the author here and I think we will continue to get

closer and closer to the powers god has. However, we will never reach them. God's

powers are infinite, and every mathematician knows there is no such thing as infinity. It

is simply one of those natural bounds. No matter how powerful we get, God's powers

will still be far greater than ours. Even now, we have people potentially creating souls

through advanced methods of cloning. I don't believe this contradicts my statements in

the previous paragraph as the work they do is merely altering existing methods. We are

not creating new life, just recreating existing forms of life and modifying them a bit. We

still have to play by the existing rules. We may be able to create a half goat half sheep

animal, but we cannot make plants that are intelligent enough to carry on conversations

with us. Perhaps someday we will be able to do this, but even then it will still simply be

a modification of existing life forms.

In the end, the author reaches the rather boring conclusion that technology

enthusiasts have always been motivated by their desire to understand and become closer

to God. This may be true as a very general statement, but I personally think it is a rather

foolish goal and will not be pursuing it in any research I do. After reading this book, I

would still prefer to keep my science and my religion separate for the most part. Perhaps

one day some great scientific breakthrough will prove the existence of God, but until then

I do not really see why one should try to intertwine a system of beliefs and a system of

logic. They are fundamentally different.