# The concept of science and technology

Despite the disasters caused by science and technology, their mistaken approach to the truth, and their failure to bring human happiness, we cannot condemn them outright and become pure idealists. Science and technology do not bear the full responsibility for humanity being devalued, human feelings being diminished, and certain human virtues, along with health and the ability to think, being seriously weakened. Rather, the fault lies with scientists who avoid their responsibilities, who cause science to develop in a materialistic and almost purely scientific atmosphere, and then let it be exploited by an irresponsible minority. Many worrying conditions probably would not exist if scientists had remained aware of their social responsibility, and if the Church had not forced it to develop in opposition to religion.

Flowing to the future like a rapid flood full of energy and vitality, and sometimes resembling a dazzling garden, the natural world is like a book for us to study, an exhibition to behold, and a trust from which we can benefit. We are responsible for studying the meaning and content of this trust so that we and future generations may benefit from it. If we wish, we can call this relationship “science.”

Science also can be described as comprehending what things and events tell us, what the Divine laws reveal to us, and striving to understand the Creator's purpose. Created to rule creation, we need to observe and read, to discern and learn about our surroundings so that we can find the best way to exert our influence and control. When we reach this level, by the decree of the Exalted Creator, everything will submit to us and we will submit to God.

There is no reason to fear science. The danger does not lie with science and the founding of the new world it will usher in, but rather with ignorance and irresponsible scientists and others who exploit it for their own selfish interests.

If true science directs human intelligence toward eternity without expecting any material gain, undertakes a tireless and detailed study of existence to discover absolute truth, and follows the methods required to reach this aim, what can we say about modern science other than it cannot fulfill our expectations. Although usually presented as a conflict between Christianity and science, the conflicts during the Renaissance were mainly between scientists (not science per se) and the Catholic Church. Copernicus, Galileo, and Bacon were not anti-religious; in fact, we could say that their religious commitment drove them toward scientific truth.

Before Christianity it was Islam, the religious thought springing from eternality, and the resulting love and zeal accompanied by feelings of poverty and impotence before the Eternal, All-Powerful and All-Wealthy Creator, that enabled the Muslim world's great five-century scientific advance until the close of the twelfth century CE. Its driving concept of science as based on Divine Revelation was represented almost perfectly by illustrious figures who, imbued with eternality, tirelessly studied existence to attain eternity. Their commitment to Divine Revelation caused It to diffuse a light that engendered a new concept of science in human souls.

If Islamic civilization had not been so badly damaged by the horrific Mongol and numerous destructive Crusader invasions, the world today would be very different. If the Islamic concept of science as being approved and appropriated by the community, as if it were part of the Divine Message and pursued as an act of worship, had continued to flourish, our world would be more enlightened, its intellectual life richer, its technology more wholesome, and its sciences more promising. All Islamic science sought, based on eternality, was to benefit humanity by helping us to aspire for the other world and to handle things responsibly for the sake and pleasure of God Almighty.

Only the love of truth, defined as approaching existence not for material advantage or worldly gain but to observe and recognize it as it really is, gives true direction to scientific studies. Those with such love will achieve their goal; those who do not have such love, who are led by worldly passion, material aspiration, ideological prejudice and fanaticism, either will fail or turn science into a deadly weapon to be used against what is best for humanity.

Intellectuals, educational institutions, and the mass media must strive to deliver modern scientific studies from the current lethal atmosphere of materialism and ideological fanaticism. In order to re-direct science toward human values, scientists' minds must be freed of ideological superstition and fanaticism, and their souls purified of desire for worldly gain and advantage. This will enable them to secure true freedom of thought and engage in good science. Their centuries-long battle against the clergy and corrupt concepts formed in the name of religion, and their subsequent denunciation of religious people as backward, narrow-minded, and fanatic, should serve as a warning to scientists not to fall into the same trap.

Intellectual and scientific despotism arise from a group's own self-interest and power-seeking, ideology and fanaticism. Such groups can be found among both scientists and clerics. Despotism is despotism, whether it arises from restricting reason to corrupt and distorted religious conceptions and clerical domination or its scientific counterpart. Islam continually urges humanity to study nature, the exhibition of Divine works, to reflect on creation and what has been created, and to approach it responsibly in order to benefit humanity.

When studied without prejudice and preconception, the Qur'an shows that it promotes the love of science and humanity, justice and order. The Qur'an is full of verses urging us to study nature, which it sees as a place of exhibition of Divine works. It also urges us to reflect upon creation and the created, to approach it responsibly, and to use it to everybody's benefit. According to Islam, the whole point of seeking knowledge is to discover the meaning of existence so that we can reach the Creator and benefit humanity and all creation. And then, we are to combine that knowledge with belief, love and altruism. Humanity has seen such an ideal in practice: the exemplary life of Prophet Muhammad, upon him be peace and blessings, and the conduct of many of its representatives who perfected their thoughts and deeds.

So what is there to fear from science? Planned acts based on knowledge sometimes cause bad results, but certainly ignorance and disorganization always cause bad results. Instead of opposing the products of science and technology, we must use them to bring happiness to humanity. Herein lies the essence of our greatest problem, for we cannot take measures against the Space Age or erase atomic or hydrogen bomb-making knowledge.

Although science might be a deadly weapon in the hands of an irresponsible minority, we should not hesitate to adopt both it and its products and then use them to establish a civilization in which we can secure our happiness in this world and the next. It is pointless to curse machines and factories, because machines will continue to run and factories to operate. Science and its products will begin to benefit us only when people of truth and belief begin to direct our affairs.

We have never suffered harm from a weapon in the hands of angels. Whatever we have suffered has come from those who still believe that only might is right. This situation will continue until we build a world on a foundation of faith and science.

According to Islam, the universe resembles a book written by God, a palace built by Him to make Himself known to conscious beings—primarily us. The universe essentially exists in God's Knowledge in meaning. Creation means that through His Will, He specifies or gives a distinct character and form to that meaning as species, races, families, or individuals. Then, through His Power, He clothes each in matter so that it can exist in this time-and-space constrained material realm. After a thing ceases to exist, it continues to live in God's Knowledge and in the memories of those who saw it and through its offspring (if any). For example, a dead flower continues to exist in God's Knowledge, in the memories of those who saw it, and in its seeds.

Everything has five stages or degrees of existence. First, and essentially, it exists in the Creator's Knowledge as meaning. Even if God Almighty did not create it (in the material realm), it would exist in His Knowledge as meaning, for meaning constitutes the essential existence of everything. Then, it exists in the Divine Will as a form or a plan; as a material object in the material realm; as a memory and through its offspring (if any); and, finally, its eternal existence in the other world. God Almighty will use the debris of this world to construct the other one. There, animals will continue their existence, each species through a representative of its own species, while each human being will find the eternal life designed for him or her according to how he or she lived while in this world.

I hope now that the relationship between science and Islam is clear.

The universe, which science studies, manifests God's Names and therefore has some sort of sanctity. Everything in it is a letter from God Almighty inviting us to study it and acquire knowledge of Him. Thus, the universe is the collection of those letters or, as Muslim sages call it, the Divine Book of Creation issuing primarily from the Divine Attributes of Will and Power. The Qur'an, which issues from the Divine Will of Speech, is the universe's counterpart in written form. Just as there can be no conflict between a palace and the paper describing it, there can be no conflict between the universe and the Qur'an, for they are two expressions of the same truth.

Similarly, humanity is a Divine book corresponding to the Qur'an and the universe. This is why the term used to signify a Qur'anic verse—ayah—also means events occurring within human souls and phenomena occurring in nature.

**The meaning of the first command “Read!”**

It is interesting that the first revelation of the Qur'an was:

*Read, in and with the name of your Lord Who created. He created man of an embryo suspended. Read, and your Lord is the Most Munificent, Who taught by the Pen, taught man what he knew not (96:1-3).*

The Qur'an ordered people to read when the local civilization to which it was revealed had almost nothing to read. What does this apparent contradiction tell us? Nothing less than that we are to read, in the sense of studying, the universe as the Book of Creation and its written counterpart, the Qur'an. We are to observe the universe, perceive its meaning and content, and use the resulting knowledge to deepen our appreciation of the beauty and splendor of the Creator's system and the infinitude of His Might. And so we are obliged to penetrate the universe's manifold meanings, discover the Divine laws of nature, and establish a world in which science and faith complement each other so that we can be God's vicegerent and attain true bliss in both worlds.

God Almighty has two kinds of laws. One is the Shari'ah, which comprises His laws issuing from His Attribute of Speech, governs humanity's religious life, and serves as the basis for reward or punishment, which are usually given in the afterlife. The second in the Divine laws governing creation and life as a whole, which issue from His Attribute of Will and are generally (but mistakenly) called “the laws of nature and life.” The reward or punishment for them is usually given in this world. For example, patience and perseverance are rewarded with success, while indolence brings privation. Industry brings wealth, and steadfastness victory.

The Qur'an insistently draws our attention to natural phenomena, which are the subject matter of science, and urges their study. During the first 5 centuries of Islam, Muslims united science and religion, intellect and heart, material and spiritual. Later on, however, it was the West that pursued scientific knowledge and therefore showed an (unconscious) obedience to the Divine laws of nature. The West dominated the Muslim world because the latter no longer understood or practiced Islam correctly in their daily lives, and because they neglected scientific investigation and the study of nature. All of this amounted to dis-obeying the Divine laws of nature.