

The Impact of Confucianism on Technologies and Development

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Is there a significant relationship between technology and religion? Does religion have any influence on how technology is used, or on the pace of technological advancement? If they are related, is the relationship positive or negative? Does religion advance or obstruct technology's progress? Today there are many scientists and sociologists asking themselves these and similar questions.



The Relationship between Technology and Religion

Some argue that there is no connection between a scientific technology that is constantly in flux and open to the future, and religion, which is seen as intransigent and anchored in the past. Some say technology invalidates the need for religion and that the spiritual values embodied within religion have little or nothing to do with technology's evolution. On the other hand, there are those who contend that religion is a driving force in the development of all sciences, including technology.

These days scientists tend more and more to rely upon studies of the cultural and religious dimensions of societies in order to better understand how technology evolves and how it is applied in different

times and cultures. A key question might be: why are some societies more prone to develop technology than others, and why are some quick to capitalize on new scientific discoveries, while others seem slow to react? Are there religious reasons for this? Should not the influence of religion on the social and economic development of different cultures be given more consideration?

We must also consider another current of modern thought that gives religion a place in any reflection on the new technologies.¹ Heidegger liked to say that "the essence of technics is not technical". For scientists today the approach to solving technological problems is multidisciplinary, and religion is a part of any multifaceted approach.² It is, indeed, impossible to measure the achievements of contemporary human societies without studying their history, culture and religion, all of which have left their mark on how they think and act. For this reason, today's scientists are less inclined to consider science and technology as purely neutral or isolated entities.

Research studies on the relationship of science and religion were carried out in the Kalamazoo Valley Institute in Michigan during the summer of 1991-1992. These studies focused on the possible ways science, technology and the humanities might contribute to a better understanding of humanity and the human condition³ Lehigh University also published a series of research studies on the social context of technology in contemporary society.⁴

Despite such efforts, the general failure among many academics to acknowledge the role of religion in their development seems to be at least partially responsible for the lack of openness in approaching current social and scientific realities. Schools are called upon to prepare students for accepting the reality of scientific change by portraying religious institutions and functioning ideologies as obstacles to its progress. And yet how dare we reduce human beings to the level of *homo economicus*, i.e. a rational being who is motivated by an insatiable appetite to consume and is in a relentless search for more and greater profits? Fortunately, *homo economicus* exists only in the models found in economic and mathematical abstracts and in the minds of their creators? Economics is a human science and, as such, is one that is profoundly influenced by all sorts of cultural factors.

Max Weber's point of view differs from that of Karl Marx. For Weber, economics is characterized by religious belief. In his "The Protestant Ethic and the Spirit of Capitalism,"⁵ he demonstrates in an

exhaustive study of the world's great religions how religious faith does indeed influence ethical behaviour, which has a determining factor on the development of economics.

In his study of different religions, Weber also includes Confucianism. His research into religion and technology has given rise to many similar studies both in the East and in the West. But the work done by S. Gordon Redding of Hong Kong University is deserving of special mention here. His study of 72 businessmen from such Southeast Asian areas as Hong Kong, Taiwan, Indonesia, the Philippines, Malaysia and Thailand, demonstrates the links between morality, religion and the spirit of enterprise.⁶ His survey consists of 42 questions, three of which are religious in the broader sense of the term, i.e. affiliation with a religious group, conscious relationship between work and a specific religious belief, and influences from one's religious cultural tradition. Redding coins the phrase "economic culture" to describe what he sees as a process whereby economic development and technological innovation is conditioned by social values.

The Fast Report

The European Community is also studying the relationship of technology to religion in a programme entitled FAST (Forecasting and Assessment in Science and Technology).⁷ The FAST report is a very interesting research study of the world's great religions and their impact on the development of technology.⁸ Its author, Marc Luyckx, who used experts in each of the major religions as consultants, demonstrates how religion is not merely an individual experience arising from the person, but rather, it depends very much on collective thinking. In his preface, Riccardo Petrella, the director of FAST, poses four major questions that need to be answered:

1. What ultimately binds the inhabitants of our planet in a common bond? Can we, must we, accept the growing and ever deepening divisions among us ... the inequalities which separate individuals, countries, continents from each other, and which are seen now as even more serious and threatening because of the relentless advances of modern science and technology?
2. Can the nearly 6 billion people who now live in our world be said to share in a common human history? Are we all part of the same

human collective?

3. What, then, is the proper relationship of generations? How does today effect tomorrow? Can we, and do we have the right to, situate our present actions solely within the parameters of our own immediate perceptions and needs? Are we really free to act today without thought of the possible consequences our actions might have on future generations?

4. And, finally, what is the relationship of humanity and nature? Are human beings given license to conquer and subdue, pillage and plunder nature's resources at will?

The FAST Report provides us with a ready reference for our own investigations of the links technology has to social and religious realities. It does not separate ethical science and the search for the purpose and meaning of life from technological progress. This approach is syncretical and offers a global response to problems of a human and social nature. Here technology becomes a means for furthering the good, rather than an end in itself. It no longer poses as neutral or indifferent in its aims, nor is it seen as isolated from its origins.

Science, Technology and Technics

A word about terminology, while acknowledging that exact definitions are illusive, incomplete and not always satisfying to everyone's taste.

One dictionary definition of science calls it "a branch of knowledge or study dealing with a body of facts or truths systematically arranged and making manifest the operation of general laws." Science is concerned with the theoretical and abstract, whereas the arts and technics deal with concrete applications. The dictionary defines technics as a study of the arts in general, especially the mechanical or industrial arts; it uses a combination of methodologies, based on scientific knowledge ordered to practical use.

Technology is a term even more difficult to define since it is given different meanings, both old and new, in different languages and cultures. The *Petit Robert*⁹ defines technology as "the study of techniques, tools, machinery and materials." The *Encyclopedia Universalis* is more complex, giving it a socio-cultural context and a link to the economy through choices influencing production. J.Y.

Goffi in his *Philosophy and Technology*¹⁰ cites two definitions found in the course of history: first, technology as applied science; (p.25) second, technology as a systematic and rational study of processes. In point of fact, there is much give and take between science and technics. Sometimes technics antedate science (planes flew before the science of aerodynamics developed); sometimes the opposite is true and it is scientific discoveries that bring about a change in technics. Technology holds the ground between science and technics, and is open to influence from both sides. In *The Technical Destiny*, Jean-Jacques Salomon places science at the heart of economic, social and cultural structures. He says: "Technology is always technics which pass through science. It associates the work of the laboratory to that of the factory. It acts not only on the nature of material things, but also on human beings and on society's production and consumption, its organization and communication systems. And finally, it effects the vision they have of themselves, for technology is not only the creation and transformation of physical objects, but it is also the creation and transformation of material objects as well."¹¹ Modern technology is characterized by a scientific rationalism that makes it different from ancient techniques.

THE USE OF TECHNOLOGY

The use of technology depends not only on technical possibility, but also on the existing social values and traditional customs. Pierre Bourdieu has shown, for example, how the use of the camera depends as much on the cultural context as it does on its technical properties. How many scientific discoveries have gone undiscovered because they did not match the needs, or fulfil the dreams, or relate to the prevailing customs of the social milieu. The logic behind the use of technology is also a social logic. Jacques Perriault in "The Logic of Usage" affirms: "Many factors intervene in the decision to employ, abandon, modify or change the use of an apparatus. It is not technology that determines this, but rather, it is due in great measure to the imagination and social norms of peoples."¹²

It is quite conceivable to presume that people would preserve for posterity the cassette recordings of the voices of deceased family members, or that people would use a computer to keep current family accounts, however, such technological possibilities have not found the

anticipated market among large sections of the population. This is only one example of how the development of technology is controlled by factors in the market place. In addition, things are often used in ways quite different from what the original inventors had envisioned.

We must situate, then, technology within its social, cultural, political and economic context. It is impossible to understand technological evolution outside the social processes from which it evolved. Society is marked by technological progress and progress, in turn, influences society. The implementation of any new technology in a given society must correspond to its societal choice and pervading cultural values. Such a process of selection and innovation is neither linear nor easy to predict.

Confucius and Confucianism

In Southeast Asia, Confucianism is topical and all pervading. In recent years there have been innumerable conferences held in the area which are devoted solely to Confucian values and the role they play in the social and economic development of that part of the world. What is Confucianism? The term is ambiguous. The Chinese prefer to use the word *rujia* or *rujiao* which means 'school' or 'the teachings of the literati'. Confucianism, then, is not so much the teaching of Confucius, although it is that, but the teaching of the literati, i.e. Confucian disciples and scholars.

Confucius was born in the state of Lu in 551 BCE, near the city of Qufu, in the province of Shangdong. His name in English comes from the Latinized version of his title in Chinese, Kung Futzu (Master Kung), which was devised by the Jesuits, who wrote extensively about him in the 17th century. An account of his basic teachings can be found in the *Analects*.

According to contemporary critics, the *Five Classics*, which are considered to be the foundational texts of Confucianism, were not written directly, nor were they edited by Confucius himself, but are the work of his disciples and scholars of later generations. *The Five Classics* are: *the Book of Changes*; *the Book of Writings*; *the Book of Songs*; *the Spring and Autumn Annals*; and *the Book of Rites*. A sixth book, *the Book of Music*, which was part of the original collection, has been lost.

Confucianism rests on five basic principles: humanity and

righteousness (*ren*); wisdom and knowledge (*yi*); the five relationships (*xiao*), i.e. father/son, older brother/younger brother, husband/wife, elder/younger, and ruler/subject; ritual or rites (*li*), i.e. ancestor worship, social behaviour and harmony, personal discipline, etc.

It was Mencius (380-289 BCE) who formulated the defining qualities of each of the five relationships: between ruler and subject equity; husband and wife, appropriate distinction; between younger and the elder, order: and between friends, fidelity.¹³

The following thoughts from the *Analects* may help to illustrate Confucian thought and values as found in traditional Chinese culture.

On filial piety:

The superior man focuses on what is fundamental, and when that has been established, the Tao (the Way) can grow and flourish. And what is surely fundamental to acts of benevolent goodness is proper behaviour towards one's parents and elder brothers. (Book I:2).

A young man must be filial to his parents when at home and respectful of his elders when abroad. (Book I:6)

A man who applies his mind as sincerely to the love of virtue as he does to the love of beauty, who is able to devote his life to serving his parents, and who in intercourse with friends is always true to his word--others may say of such a person that he is lacking in learning, but I, for my part, will certainly call him an educated man. (Book I:7)

On rites and ritual:

External rites that do not concur with inner feelings are hypocrisy. (Book II:26)

Respect for tradition must not hinder innovation. If a man's cherishing of the old leads him to embrace what is new, he then may become a teacher of others. (Book II:11)

When small (minded) men occupy the highest places, when rites are performed without reverence, and grieving for the dead lacks sincerity of heart, who can endure such wanton display? (Book II:26)

On innovation:

One who is able to extract a new truth from the writings of an

ancient sage is worthy of becoming a master. (Book II:2,II)

On riches:

Thoughts of riches and honours falsely gained are as remote from me as the clouds floating above. (Book VII:15)

If it were possible to become rich without compromising my integrity, I'd jump at the chance, even though my status in my own eyes would only be that of a pretentious 'gentleman' holding his master's whip. But since this is not possible, I shall continue to pursue the things that I love. (Book VII:11)

The honest man strives after justice; the mediocre man strives after profit. (Book IV:15)

On human relations:

Do not do to others what you do not want others to do to you. (Book V:11)

He who demands much from himself and little from others will never become an object of resentment. (Book XV:14)

On friendship:

I should like to have carriages and horses, clothes and fur rugs to share them with my friends, and to feel no annoyance if they were returned to me any the worse for wear. (Book V:25)

On law and love:

The value of one who knows the Way (*tao*) is not as great as the value of one who loves the Way. But the value of one who finds his happiness in the Way is greater than both. (Book V)

On women:

Women and servants are hard to deal with. If you are friendly with them, they take advantage; if you keep your distance from them, they resent it. (Book XVII:25)

Confucianism: Philosophy or Religion?

Is Confucianism a philosophy or a religion? While it is most often presented as a form of humanistic philosophy, there are various interpretations, some quite contradictory, that would give to it a

religious dimension. The Confucian use of the word 'Heaven' is often ambiguous. Whether Heaven refers to a transcendent element of nature or to a personal God remains uncertain. What is clear, however, is that Confucianism is not a religion in the same sense as is Judaism, Christianity or Islam. Nor can it be said to be similar to the popular practise of Taoism and Buddhism wherein religious beliefs and rituals often play a crucial part. Some experts place Confucianism among the great religions of the world largely because of its transcendent aspects, but many other scholars categorize it merely as a humanistic and ethical philosophy, or as a form of wisdom teaching.

Confucianists boast of no priesthood or clergy; its official cult, in practise, takes on a purely civil character. Confucian temples these days are simple and relatively bare of religious adornment. No statues are to be found in their main sanctuaries, only a modest wooden table on which the words "Tablet of the All Wise Master" are inscribed. In other Asian temples, however, you will come across statues of Confucius grouped along with Buddha and Laozi. Also in terms of traditional religious ritual and rites, ancestor worship, honoured by Confucius, is still a common practise among Asians. And altars, on which are placed the family ancestor tablets, food offerings and incense, are given the places of honour in most of their homes.

Favourable and Unfavourable attributes of Confucianism

The influence of Confucianism is certainly very real, but its importance is not so easy to comprehend. It is transmitted from generation to generation principally as an ethical system of traditional family values. Its influence is implicit, diffusive and unorganized. To the Chinese, Koreans and Japanese, Confucianism is like a vast sea in which they live and have their being. As a cultural reality and as an ethical system, however, it lacks unanimity, and it is ambivalent in its values. For example, it teaches obedience that can lead to a unified approach to the solution of social problems, but too much stress on obedience can result in stifling initiative. And while it is true that the "little dragons" of Asia are noted for high levels of productivity, part of which they ascribe to Confucian cultural values, Mainland China, the cradle of Confucianism, still has a way to go to match them. Some will extol the achievements of these burgeoning 'Confucian'

economies with pride, but others comment on how the less material and more familial values of Confucianism seem to have received short shrift in these same societies.

For some, Confucianism is a bridle and a yoke. The Marxist critique has been particularly hostile to it, and the May Fourth Movement of 1919 dismissed it with the slogan: "Down with Confucius and Company." Also during the Cultural Revolution, the Red Guards showed their disdain by damaging or destroying many Confucian temples. For others, however, especially in its espousal of the work ethic, have seen Confucianism as a major motivating force in the development of modern Asian economies.

Confucianism has been, and continues to be the object of much praise and blame. I shall devote the remainder of this article to an analysis of the responses to my survey which I have received from members of the Asian communities where Confucianism is seen as a vital part of social development.

Negative Aspects Attributed to Confucianism

Many of the negative aspects attributed to Confucianism stem from the fact that traditional Chinese society at the time of Confucius was both agricultural and feudal in character. As one might imagine, there was more interest then in social harmony than in economic production and performance.¹⁴ Confucian society was vertical and hierarchical; it was paternalistic, masculine and elitist. An exaggerated filial piety in ancestor worship promoted polygamy to insure progeny. Inflexibility and formalism in social roles countenanced the rights of fathers, husbands and rulers above all others in society. The needs of the individual were subordinate to those of family, clan and society.

This stifled a spirit of individual initiative so essential for the development of capitalism, and it fostered passive and conformist attitudes. Because it seemed to encourage social conformity and unquestioning submission to authority, Confucianism was often used by conservative powers to justify their authority, maintain law and order in society and insure the status quo. In its subjugation of children to parents and women to men, it seemed to many to be a social order that was geared to the past rather than to the future. Fault has also been found in its educational system, with its emphasis on learning by rote rather than encouraging individual thinking and creative

innovation. In its organizations and institutions, formalism and legalism often tended to replace rational judgment and decision making, and also the kind of hypocrisy that demands much from below and little from above was not uncommon among those in authority. Confucianism lacked any notion of democracy. And even the Imperial examination system that was used to select members of the ruling class did not forestall inequalities, vested-interest groups and the nepotism that fed on paternalism. And all of this was made immune to reform by an attending attitude of fatalism that remained silent, submissive and accepting before the chronic misuse and abuse of power.

Positive Aspects Attributed to Confucianism

On the other side of the coin, many can point to the very real and positive attributes of Confucianism. It is an ethical philosophy that promotes harmony and social stability. It is a real source of innovation and economic dynamism that lies at the heart of many Asian economies.¹⁵ It values formal education and academic study,¹⁶ stresses the importance of respect for elders and legitimate authority, for the social order and obedience.¹⁷ It fosters a spirit of solidarity and community in the face of rampant and destructive individualism¹⁸ and in promoting the work ethic, it holds excellence in high esteem and rewards a job well done.¹⁹ Confucianism cultivates a sense of human dignity, and it continues to uphold the essential moral goodness of people in opposition to the corrupting influence of a permissive society. Confucianism has always been a strong source of Chinese cultural identity, and, in its high moral ideals, it has much to offer both Asian and Western educational systems.²⁰ Some of the more specific aspects of Confucianism that are seen as more directly related to supporting economic progress and development are to be found in Confucius' teaching of 'the middle way' wherein they restrain personal desires and cultivate habits of thrift, sobriety and foresight in personal and social affairs. Confucianism's emphasis on the importance of the family can motivate its members to work selflessly to protect its good name and values. It urges them to espouse a spirit of enterprise that can become a driving force in forwarding not only the development of the family but also of society as well.²¹ The cultivation of Confucian family values such as loyalty, sincerity, self-sacrifice and a sense of

responsibility is also valuable to the larger society in facilitating and maintaining a good business environment outside the family.

Confucian values are human values: sincerity, equality, justice, courage and benevolent compassion.²² They are alive among the Asian diaspora, and countries receiving Asian immigrants should be made aware of this.²³ Such Confucian ideas as respect for and giving a place to the elderly²⁴ as transmitters of cultural wisdom, and conflict resolution through mediation and consensus are just two interesting possibilities that Western cultures might investigate with an eye to incorporating them into their own social systems.

Endnotes

¹ See *Challenges*, Japan Special, No. 6, June-July 1990, p.8.

² See *Social Intelligence*, Vol. 1, 1991; Taylor Graham Publishing, London.

³ See Robert Badra, "The Humanities, Sciences and Technology: Making Connections," Kalamazoo Valley community College, Michigan, 1992, p. 20.

⁴ See David Schenck, "Science, Philosophy and Religion," Working papers series, Vol. 1, p. 117, Lehigh University, Bethlehem, PA, Technology Study Resources Center, August 1984.

⁵ Max Weber, *The Protestant Ethic and the Spirit of Capitalism*, Preface by Jacques Le Goff, Paris, France Loisirs, 1964.

⁶ S. Gordon Redding, *The Spirit of Chinese Capitalism*, Berlin, New York, De Gruyter, 1990.

⁷ See Mark Luyckx, "Les religions face a la science et a la technologie: Eglises et ethiques apres Promethee, exploratory report, Brussels, November 1991, FAST, Commission of European Communities.

⁸ See report, p. 82.

⁹ French Language dictionary, Paul Robert, Paris, 1972.

¹⁰ J.Y. Goffi, "La philosophie de la technique," Collection "Que Sais-je", Paris, PUF, 1988.

¹¹ Jean-Jacques Salomon, *Le destin technologique*, Paris ed. Balland, 1992, p.70.

¹² Jacques Perriault, "La logique de l'usage," essay on communications, Paris, ed. Flammarion, 1989, p. 202.

¹³ See Michael C. Kalton, "Korean Ideas and Values," in *Inculturation*, Winter, 1989, p.4.

¹⁴ See the *Analects of Confucius*.

¹⁵ See Jon D. Wisman, "The Dominance of Consensual over Technical Rationality in Confucius' Socio-economic thought," in *International Journal of Social Economics*, (UK) v. 15, No. 1, 1988, pp.58-67.

¹⁶ See Kris K. Murthy, "Cultural context for Capitalism in the Pacific Rim," in

“Portland International Conference on Management of Engineering and Technology,” 1991, USA.

¹⁷ See Pheny Zhou Smith; Harold A. Smith, “The Educational Philosophies of John Dewey and Confucius: A Comparison” No. 8, 1989, Paper presented at the Annual meeting of the Mid-south Educational Research Association.

¹⁸ June Ock Yun, “The Impact of Confucianism on Interpersonal Relationships and Communications Patterns in East Asia,” in *Communications Monographs*, Vol. 55, No. 4, pp. 374-388, Dec. 1988.

¹⁹ See William Askins; Elizabeth Dunlap, *Community College Humanities Review*, No. 9, 1988.

²⁰ France H. Conroy, *Learning to be Human: Confucian Resources for Rethinking General Education*, Princeton University, E.S., 1988.

²¹ See Yi-Si Chang, *The Impact of Ancient Chinese Philosophy on Contemporary Leisure in China*, USA Missouri, Sept. 1992.

²² See Ryerson Andre, “Dead Asian Male,” in *Policy Review*, No. 61, pp.74-79. Summer 1992. Tan Tai Wei, “Some Confucian Insights and Moral Education,” in *Journal of Moral Education*, Vol. 19, No. 1, pp33-37, Jan. 1990.

²³ See Janine Bempechat and Mira C. Omori, “Meeting the Educational Needs of Southeast Asian Children, New York, Aug. 1990.

²⁴ See John L. Elias, “Religious Education of Older Adults: Historical Perspectives” in *Educational Gerontology*, Vol. 14, No. 4, pp269-278, 1988.

