



The Islamic Standard for the Assessment of Modern Technology

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Abstract

The Islamic religion is a holistic way of life; its worldview and ethical guidelines govern all spheres of human life and activities, including modern technology. Until recently, due to an instrumentalist understanding of modern technology, it was thought to be a value-neutral enterprise. The value-neutrality perspective has now been abandoned by academicians although it is still accepted at the popular level. The more recent view on modern technology is that it is perhaps the most important expression of human values, aspirations and goals, and reflective of the ethical paradigm from which it emerged. Muslim scholars have framed the discourse for Islamisation of Science, but there has been little discussion of modern technology in relation to Islamic objectives and values. This paper attempts to address this gap in the discourse by examining the ontological, epistemological and ethical problems inherent in current, predominantly Western, attitudes towards technological advancement, and discussing the need for Muslims to formulate their own ethical framework for the evaluation and development of modern technology. Can Muslims develop an Islamic conception of modern technology that defines it not only as a practical means to proximate ends but also as a factor contributing in meaningful ways to the ultimate Islamic objectives (*maqāṣid*) of nurturing the human self and promoting compassion and community? Can modern technology be reworked along Islamic lines to foster a thoughtful life of balance, moderation and good character (*akhlāq*)? Can the Islamic framework help to put modern technology back in its rightful place as a means to ends rather than an end in itself? These are the questions raised and discussed in this paper.

Keywords: *Maqasid al Sharia, Modern Technology, Islamic Ethics, Islamic Ethics of Technology, Human Good*

Abstrak

Agama Islam adalah cara yang menyeluruh. Kehidupan aktiviti manusia perlu pematuhan daripada pandangan dunia Islam dan garis panduan etika tersebut. Pengaplikasian yang sama dilakukan untuk institusi-institusi seperti teknologi moden. Sehingga baru-baru ini, teknologi moden telah dianggap sebagai perusahaan nilai – neutral yang muncul dari pemahaman peralatan fenomena teknologi. Perspektif nilai berkecuali kini telah diketepikan oleh ahli-ahli akademik walaupun ia masih diterima di peringkat terkini. Pandangan terbaru mengenai teknologi moden adalah dilihat sebagai ungkapan yang paling penting dalam pengekspresan nilai manusia, aspirasi dan matlamat serta mencerminkan paradigm etika di mana ia telah muncul. Ulama Islam telah merangkakan wacana untuk Pengislaman Sains tetapi tidak banyak yang telah dibincangkan mengenai teknologi moden dan hubungannya dengan objektif dan nilai-nilai Islam . Dalam penulisan ini penghujahan bahawa struktur semasa di mana teknologi moden memajukan pada kadar yang sangat cepat, ialah yang berkaitan dengan masalah ontologi , epistemologi dan etika. Apabila dilihat dari sudut pandangan Islam tentang tujuan kehidupan manusia, teknologi Barat moden mengekspresinya sebagai cara yang kehidupan nihilistik. Dengan kehilangan asas etika dan istilah maksud di dunia akhir moden atau pasca moden yang kita diami, cara teknologi bermaksud peranan akhir. Keadaan ini tidak dapat disamakan dengan kedudukan Islam dan dengan itu umat Islam perlu membangunkan kerangka kerja etika mereka sendiri bagi penilaian dan perkembangan teknologi moden. Bolehkah kita membangunkan konsep Islam teknologi moden di mana ia

ditakrifkan bukan sahaja sebagai satu cara praktikal untuk penghujung proksimat tetapi menyumbang dengan cara yang bermakna kepada matlamat Islam muktamad (*maqasid*) memupuk diri manusia, belas kasihan dan mewujudkan masyarakat yang bukan

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kepentingan diri dan sikap tidak peduli? Bolehkah teknologi moden diolah mengikut garisan Islam bagi memupuk kehidupan yang bertimbang rasa, bersederhana dan bersifat (akhlaq)? Bolehkah rangka kerja Islam membantu kepada perubahan halatuju, meletakkan kembali teknologi moden pada tempatnya yang hak dan tidak menjadi semua asasnya? Ini adalah soalan-soalan yang akan dibangkitkan dan dibincangkan dalam penulisan ini.

Kata kunci: *Maqasid al Syariah , Teknologi Moden, Etika Islam, Etika Islam Teknologi, Baik Manusia*

Introduction

One of the important vehicles for modernity has been modern technology. Although, having a relationship of inter-dependence with science, modern technology has a characteristic of its own, especially with its ability to invert the means-end relationship. The pre modern crafts that functioned as means toward predetermined and well defined end/s have been replaced by modern technology that challenges pre modern values and erects its own set of prized values influencing the idea and ideal of progress in our contemporary age. The pre modern crafts were influenced by the nature of ends toward which they worked and the cultural context in which they operated and did not have an essential role in shaping cultural values and acted more as value-neutral means toward pre-existing goals, ends or objectives.

One of the ways technology has been defined is the “totality of means employed by a people to provide itself with the objects of material culture” (Winner 1977:8-9). This definition is important as it shows technology to be a “totality of means”, something significant for the purpose of this paper because technology, understood in the proper sense and kept in its rightful place, is a means. Any attempts, implicit or explicit, that turns the technological means into ends reflect a cultural malady; a sign of inability to articulate any higher cultural or social goals. This definition, however, does not cite social and value aspects of culture in addition to material culture, to which contemporary technology has a good deal to contribute. It has often been the case that due to insufficient understanding of the relationship of technology with ethics, technical solutions have been put into effect for problems that were moral or political in nature. This definition also does not throw much light on the specific nature of modern technology which is different from pre-modern or ancient technologies.

Since the onset of modernity, technology has penetrated all domains of human activity to the extent that everything has some outward or inward, direct or indirect, connection with technology. Due to the fact that contemporary technology is the most predominant human activity that shapes the culture today, it is worthwhile for our purposes to look at it as

late-modern or postmodern phenomenon. This will help to understand the specific form it has assumed currently. That specific form or philosophical underpinning of modern or postmodern technology is the cause of many problems pointed out by philosophers, cultural and social critics. It is more correct to call our contemporary technology as postmodern because it incorporates the absence of foundationalist ethics and any predefined goals.

Modern technology was initially aimed at humanist goals like ameliorating human ills and epistemological targets like finding the essence of things through scientific knowledge. Our contemporary age is however characterized by the abandonment of these goals along with a critique of the failure of modern science and technology to provide foundational epistemological or ethical principles. Thus it appears viable to consider the present analysis of technology as postmodern, as an expression of disenchantment with modern aims and objectives with regard to technology. Postmodern technology might also signify an attempt to come up with a technology having different philosophical underpinnings than the one enjoying predominance and emphasizing only efficiency and maximization. This postmodern technology will be informed by another worldview and value framework. As one author writes about the possibility of such a conception:

“As there were premodern technologies, perhaps there may be post-modern radically different technologiesIf there should be ...post-modern civilization with its own characteristic ways of thinking, its own metaphysical models, and its own forms of science, then future technologies will be postmodern too...such technologies will aim at optimization rather than maximization ...Bigger is not always better for an organism, and more is not always a healthy goal. These principles will make a vast difference to the character of artifacts and the system of economics in such a post-modern world. Systems of production will not automatically aim for maximum efficiency or profit. Stability, durability, sustainability, and

satisfaction will be dominant considerations”
(Ferre 1988: 134).

The advent of modernity signified plasticity of the social milieu (Winner 1977: 122-4) that provided a favorable environment for the advancement of modern technology on an ideational level. In addition to other social and economic conditions it was the removal of Christian ethics from the social scene along with its restriction on unnecessary tampering with the sacred and natural order of things that provided a ripe ground for technological manipulation. The disintegration of social groups and subsequent individualization, resulting from abandonment of the religious-social universe, left human beings as rootless and atomized units. In such a time of social fragmentation, modern technology provided people with reliability and identity.

Mitcham defines technology as “the making of material artifacts” (Monsma 1986: 17). But modern technology is much more than that. It has altered the socio-cultural life in fundamental ways. Modern technology seems to conform more to Heidegger’s phenomenological appraisal according to which technology is not just about technological devices or objects, rather technological practice of a given culture exhibits the way world is meaningfully perceived and shaped. A world is “disclosed” according to Heidegger in the sense that “the orientation of the subject opens up a coherent perspective on reality” (Misa et al 2003: 93). According to this understanding of technology, the meaning of reality is interpreted in the technological doings of a culture. Technological practices are developed and organized around what is considered real and worthwhile.

The various socio-cultural and ethical problems caused by an uncritical celebration of technological progress, has led to the questioning of technological change for its own sake along with its attendant ideologies and presumptions. There have been voices calling for ethical evaluation of modern technology and the cultural framework in which it is advancing. Such analyses have made a dent in all naïve optimisms or unqualified Enlightenment belief, whether liberal or socialist, in technological progress, asking for prescription of limits to unmediated technological growth (Mitcham 2009: 379). Modern technology has been understood as the originator of a new cultural life that is “incommensurable with all that has been known up to this point in human history and within which people thus struggled for moral orientation” (Mitcham 2009: 368). The applied ethics movement such as environmental and bioethics as well as engineering, computer and nano ethics

represent an intellectual response to the changes technology brought about within the material culture.

Islamic religion is a whole way of life. All spheres of human life and activities need adherence to the Islamic worldview and its ethical guidelines. This applies equally well to institutions like modern technology. Until recently, modern technology was thought to be a value-neutral enterprise which sprang from an instrumentalist understanding of the phenomenon of technology. The value-neutrality perspective has now been abandoned by academicians although it is still accepted at the popular level. The more recent view on modern technology sees it as perhaps the most important expression of human values, aspirations and goals and reflective of the ethical paradigm in which it has emerged.

One of the questions is the consumption aspect of a technological society. Does technology- for- the- sake- of-technology- attitude right for a Muslim society that leads to unstoppable consumption patterns which might collide head on with the Islamic values of simplicity, meaningfulness and thoughtfulness in life because such a consumer society never stops to look deep into its ways and patterns of life. Technological lifestyle does have the potential of interfering with Islamic notions and practices of piety and single minded devotion to God, not just by its fast pace and consumerism but also by celebrating innovation as sometimes the ultimate destiny decreed by God, thereby manipulating concepts of knowledge (*‘ilm*), goodness and morality in social life to conform to the notion of technological progress. Since in an Islamic milieu, everything can come under the canopy of worship, in order to make technological pursuits a form of worship they must synchronize with the Islamic religious objectives (*maqāṣid*).

Analyzing the Value Framework of Modern Technology

According to the value-neutrality thesis, modern technology is like an amoral instrument that can be used correctly or incorrectly, for good or for bad. There is a moral openness to modern technology as tools or devices. These devices do not influence the ends or objectives for which they are used and can be used for a multiplicity of ends, even those that are otherwise irreconcilable with each other. Those who profess modern technology to be value-neutral argue that morality and values are not part of the nature of any technology but are added later in the context of use. That

“...there is always a last step to be taken before anything in terms of value comes out of the

existence of these tools and devices; their very existence has not finally decided their status in terms of value” (Sundström 1998: 43).

This view about modern technology, which is the most widely accepted, has a number of ramifications. It absolves the engineers and technicians, designers and manufacturers of modern technology, of any responsibility since according to this view they are not the ones who determine the usage. Another corollary is that since technology is value-neutral and technological products independent, these can promote entirely different cultures or lifestyles (Christians 2002: 38). However if we take technology as a cultural or anthropological activity that transforms natural reality for practical purposes, then it comes out to be value-laden throughout, in the spheres of design, fabrication and use of resulting technological tools and products. Technology is value-laden through its function which is related to a purpose or value (Hofmann 2006: 6). Being value laden however does not mean that technology is imperative and reduces our ethical responsibility (Hofmann 2002). On the other hand it reinforces human responsibility, even at the level of designing, to judge whether the values informing design are worthwhile. Failing to assume this responsibility results in technological imperative where technology starts to direct our goals enforcing its own values, becoming autonomous and self-perpetuating, resulting in applications contrary to human interests (Hofmann 2002: 160). I believe that only within the postmodern nihilistic paradigm technological imperative becomes operational because there is no vantage point or ethical values or foundation to specify goals for technological means.

Hofmann brings examples from biotechnology to show the value-laden character of modern technology. When we create technology, we simultaneously make choices about values. If we produce respirators and bacteriological weapons, then this implies that being able to sustain artificial respiration and to subdue people by making them sick are worthwhile goals. Ignoring such an implication can lead to technology establishing values in a covert manner. The introduction of technology can be a promotion of underlying values (Hofmann 2006:6).

Modern technology thus promotes particular values through its function like it is good to artificially maintain respiration. The same is true for artificial reproductive technologies (ART) the presence of which have made infertility into a disease that needs to be remedied by IVF and other methods. The inherent value in artificial reproduction technologies (ART) which determines its function is that human

beings should intervene in natural processes to remedy infertility. The possibilities created by artificial reproduction technologies (ART) have been a cause of ethical dilemma in the Muslim context, apparently because of this value function of the technology. Since artificial reproduction technologies (ART) have been developed not in an Islamic objectives (*maqāsid*) framework, when they are adopted in Muslim societies, conflict of values and purpose is often witnessed (Clarke 2009). These religio-moral problems signify how individual and social goals are changed by the available potential of technology. Earlier, the limitedness of technology restricted many social and individual goals which were not considered viable. With indefinite possibilities offered by modern technology, where the inherent logic is indefiniteness, it is more prone to shape ends according to its own possibilities or in its own image.

Jacques Ellul was one of the pioneers to challenge the value-neutrality of technology. He has argued that technological development creates a ubiquitous culture of its own that is global and destroys local societies and cultures,

“...particular technological developments and applications permit certain forms of civil society and political community while excluding others... technology cannot be a set of neutral instruments, because their ‘neutrality’ is defined within the imposed way it should be used” (cited in Waters 2006:127).

Postman (1985:58) following the same intellectual tradition, refutes the value-neutrality thesis in strongest terms when he says,

“A medium is the social and intellectual environment a machine creates. Of course, like the brain itself, every technology has an inherent bias. It has within its physical form a predisposition toward being used in certain ways and not others. Only those who know nothing of the history of technology believe that a technology is entirely neutral....Each technology has an agenda of its own. It is... a metaphor waiting to unfold.”

Winner also writes, while exploring the meaning of technology for the way we live, that scientific technology is not just a set of useful instruments but "enduring frameworks of social and political action" (Winner 1986: x). Mitcham (1994: 231-234) identified that the use of technology can be understood in terms of its function, purpose and

application. The use of any technology in terms of the function it performs cannot be value neutral and is embedded within its design and structure which in turn is informed by cultural values, in most cases implicitly. Due to the value ladenness of the function, there are some uses that we cannot abstain from without violating the core characteristics of technology. Modern technology in this way compels certain actions through its inherent function. The values originate from human volition that is constitutive of technology. This act of volition could be personal or cultural (Mitcham 1978: 258). The inherent nature of technologies causes specific results that cannot be altered by having good intentions at the level of use. Rather the technologies tend to change human volitions to make those compatible with their function.

“You just cannot take a constructive will and harness to it a technological object with an intrinsic principle of massive destructiveness. The object resists; either it alters your volition, you fail in your project, or you abandon it for some more nearly adequate means... what is needed is a clarification of the inherent nature of various technological processes and objects... through contemporary historical, sociological and ecological studies of technology” (Mitcham 1978:259).

Interpreting and Applying the Objectives (Maqāsid) to the Technological Context

In the light of the foregoing analysis of the value dimensions of modern technology it will now be seen how we can reclassify the Islamic objectives ((*maqāsid*)) to provide an ethical framework for technology to develop in a postmodern context. Recovering the meaning of a religious text is a hermeneutic task. It is partially recovering the meaning of the text for a new given social historical and intellectual reality and partly creating the meaning in the new context because without the specific context the text would not have been interpreted in that manner. It is about applying the eternal foundational principles, morals and worldview to a given reality or rather re-understanding those moral values for a different social reality. This contextual interpretation should not however be too radical because then any meaning could be read into the scriptures without allowing the scriptures to provide guidelines for a different reality. The process should be more like deciphering the meaning of the texts that have a universal import waiting to be understood and applied to the given cultural and intellectual context. The scriptures unfold their

meaning when interpreted in and for different contexts, in answer to the questions posed to them. *Fiqh* is therefore a “dynamic reading of revelation” (Dahlen 2003:11). It is the “human effort of giving a specific norm or ruling (□*ukm*) on a particular human act by studying the relevant textual sources and investigating its proper context” (Ibid 40). To engage in interpretation and intellectual comprehension (*tafaqquh*) is to find out through analogical or inductive reasoning, the Sharia attitude toward new technological challenges.

There is an intrinsic or symbiotic relationship of the religious, ethical and the legal in traditional *fiqh* structure. In the contemporary context, if we apply a similar methodology, we can see how modern technology despite its social benefits, impoverishes the spirit, barring contemplation, inducing self-absorption, selfishness and indulgence in desires. In order to reconnect the ethical and spiritual dimensions to the legal debates on the use of technology, these general outcomes of technology need to be taken into consideration.

In order to dynamise the Islamic law or Sharia, a prior transformation of the theological foundations of *fiqh* is necessary. These include presuppositions about human beings and what constitutes their happiness and progress, in order to set limits. The question of providing meaning to human existence lies behind the technological drive, in addition to the providing of solutions to practical problems. What constitutes problem for any society is based on its expectations from life and is determined by the ultimate objectives people in that society seek. The questions of meaning and purpose that should govern decisions on technological choices are then the questions of foundations (□*ūl*). These need to be understood for the contemporary technological milieu in order to articulate the Islamic standpoint on human creativity, exploration and innovation and how these fare with the religious objective of cultivating individuals and communities that have God consciousness, strive to purify their souls (*tazkiya*) and exhibit excellent morals in their collective social lives. Modernity, along with technology, was forced on Muslims, unlike the West, where it emerged from within their own historical phases of reformation, renaissance, enlightenment, scientific revolution and industrialization. Contemporary Islamic thought is not post-traditional in the Western sense since in Muslim lands, and in the context of Islam, modernity occurred via adaptation and appropriation of the tradition, rather than through the critique of religion as it happened in the Western intellectual and social tradition.

Since social and intellectual environment influences the development of *fiqh*, to broaden the scope of objectives of the Sharia (*maqāṣid al-Sharia*), they need to be reinterpreted from the Quran and the Sunna in the backdrop of contemporary contexts. The focus of this paper is then on the classical and modern literature on the objectives (*maqāṣid*) that have been derived from the Quran and the Sunna. Classically they had been interpreted for a different social-historical-intellectual environment. The more contemporary efforts attempt to revise them for the new context. Having added some additional objectives, the contemporary scholars have however not been able to integrate the understanding of the philosophical underpinnings of a postmodern civilization in their revision of the objectives.

Non-religious presuppositions of a social kind have always influenced the interpretation of religious texts. Modern Muslim scholars like Abduh and Afghani tried to see progress according to modern notions and tried to reconcile that with the Quranic concept of welfare. Now that the earlier optimism with respect to technological progress is no longer taken for granted, the notion of Islamic welfare and progress need to be reassessed in the light of the Sharia objectives (*maqāṣid*), in order to see how technology can be designed and used according to the more holistic concept of well-being (*ḥalāl*). Mujtahid-Shabistari rejects the myth that Muslims can absorb technological systems while remaining immune from its underlying meaning system (Dahlen 2003:163). William Chittick (2012:291) similarly argues that only when Western technology is uncritically accepted, along with its cultural outlook, that it causes environmental and other social problems,

"It is fair to say that "the problem of the environment" arose only because of the development of modern science and technology. If today there are serious environmental problems in various parts of the Muslim world, this is not because Muslims are living according to their own ideals and principles, far from it. What has happened is that non-Islamic ways of doing things have been imposed by the circumstances of the past two hundred years. In other words, Western environmental problems have been imported along with Western technology and know-how. Traditional Islam has never before been faced with major man-made ecological disasters or even with their possibility, so Islam has never had to frame the kind of concepts concerning the environment with which the West is now familiar".

Unbridled technological progress is both an outcome of and contributing factor to unrestrained consumerism. This suggests that the values of creativity, innovation, exploration and consumption which are expressed in the technological goods need to be balanced with the values of humility, moderation, purposefulness, wholeness, God-consciousness and purification of the soul (*tazkiya al-nafs*). In our age the *tazkiya* will constitute in less technological consumption by reflecting on the Islamic understanding of the nature (*fiṭra*) of the human self (*nafs*) and what gives it true satisfaction and worth. This could help put a check to an endless array of technological consumerism *per se*.

The five classical objectives reflect the efforts of earlier scholars to classify the ethical underpinnings of the Scriptural commands and prohibitions, into broad categories, that could encompass all areas of human life. For our contemporary technological context, that concise list needs to be elaborated in more detail, in order to make the objectives (*maqāṣid*) theory useful as an ethical tool.

Islam has an essential social-ethical-legal dimension in addition to the interior faith of the individuals. A technology inspired by the Islamic objectives and ideals shall cater to the social-ethical-legal dimension. While modern technology distances people from attributes such as social responsibility, compassion and self-restraint, furthering aimless recreation, objectives (*maqāṣid*) of Sharia oriented technology should help fulfill objectives that allow individuals to live a humane life, allowing them to be contemplative and self-reflective which are essential characteristics for developing a religious consciousness. The objectives' theory places emphasis on securing human good, but not in a way that looks only at the pragmatic solutions without any concern for the wholesome development and well-being of human beings, in line with the Islamic belief in a purposive life and an afterlife to come.

An objectives (*maqāṣid*) framework, that takes into consideration the consequences of technology and is endowed with a religio-ethical criterion to assess those consequences, is required because what is viewed as problematic consequences of modern technology from one perspective could be, for the most part, a function of the worldview informing the purpose and design of technology. These interior purposes should then be assessed against the objectives based ethical criterion to see if these purposes conform to the Islamic worldview and objectives. This does not mean that, in an objectives (*maqāṣid*) framework, the technologies under scrutiny would be evaluated individually. Because the cultural values such as the fostering of human creativity and

innovation for their own sake play their role in the design and development of technology, these need to be taken into consideration during the evaluation of technologies. Similarly the relationship of the technology under question with other technologies and with other social, economic, psychological, political and religious factors, need to be assessed in order to design and develop only those technologies that contribute holistically to the development of human person as envisioned within the Islamic objectives framework. In the field of bioethics, it has been asserted that bioethical problems are not only identified by doctors but also by religious scholars and intellectuals who assess whether a situation can be termed ethically problematic (Shahzad 2009: 29). Extending this to the whole field of technology, and not just bioethics, we can say that the objectives based techno-ethical rationality could act as a yardstick to determine the Islamic religio-moral status of a given technological design and its subsequent use.

Conclusion

This paper proposes that to expand the scope of the objectives (*maqāsid*), not only the existing *maqāsid* texts should be read with the contemporary technological context in mind but recourse should be made to the original sources that is the Quran and the Sunna to overcome the historical presuppositions of the classical literature on the *maqāsid* so that they could be made relevant for our time and place. To synthesize the traditional concept of *maqāsid al-Sharia* with the contemporary analysis and critique of technology is in fact to construct an Islamic ethics of technology that will be both objectives oriented and designed for a postmodern world. In the postmodern world technology which is disguised as a route to social progress and overcome the loss of self-identity, acts more as a tool that furthers alienation, meaninglessness and moral indifference through its incessant zeal for creativity and change. Postmodernism is generally associated with an absence of moral compass in the wake of critique of modernist or foundationalist conception of technology and its associated values of progress and meliorism. Alternate understanding such as that of Ninian Smart and Akbar S Ahmed consider postmodernism as the “reinvention of premodern traditions rather than detraditionalisation *per se*, that is, a return to the premodern past and a recovery of traditions prior to modernity” (Dahlen 2003:35). Having been disenchanted with modernity, this perspective looks at going back to premodern traditions as being postmodern in a way. To establish a moral framework for postmodern technology, this paper proposes the method of going back to the *maqāsid*, developed in

and for a pre-modern Islamic culture, in a hermeneutic endeavor to make them relevant for a postmodern technological culture.

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