



Islamic Law In Modern World: Using Technology In Islamic Criminal Justice System

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I. INTRODUCTION

Technology is a key dimension and product of modern world that in the main affect criminal justice system.

¹ This is of no surprise considering that generally legal systems have been beneficiaries of wide-range of modern technologies. This article provides overview of the effect of technology on the Islamic criminal justice system. Of course such effects may be for better or for worse, but the overall assessment shows that the benefits are likely to outweigh every perceived shortcoming. The focus of the article is therefore on the positive impacts of such technologies on the justice system.

The features of Islamic criminal law are unique and permanent because the law is based on divine codes. However criminal justice system (as distinct from the criminal law) is not unitary in the sense that it involves multidimensional processes that includes investigation, detection, trial and then conviction or acquittal as the case may be; each stage of the process is vital in the formulation of the general justice system. And then technology surfaces with characteristics of ensuring accuracy, effectiveness, smartness and fairness.² This combination of religion, justice system and technology makes it a key issue to Muslims around the world to be wary: Is application of technology in Islamic criminal justice system something outside the legal acceptance, or is it something that will compromise of the classical features of the Islamic criminal law? This article examine these issues in the light of realisation that Islamic law (whether civil or criminal) is practice in this globe where technology is everywhere and it affect all and sundry, every day of the year and all day long.

II. THE NOTION OF MODERN WORLD

The notion of 'modern world' may present ambiguity in the sense that it may ordinarily include early modern era when the industrial revolution is being seen as the height of civilisation. Of course the notion distinguishes between the ancient or medieval time and the period of scientific/technological development, but very importantly it refers to the present set of traits that makes up the contemporary urbanisation and industrialisation. The 'modern world' as used in this article is referring to the ever-increasingly electrified and automated world where almost everything has gone digital and the world have been reduced to global village. It is the world where the telephone, in the form of mobile phone, did not merely carry communications across the countryside, but renders multipurpose service of television, radio, newspaper, camera, compass, clock, recorder, music player, typewriter and calculator.

III. ISLAMIC CRIMINAL JUSTICE SYSTEM DEFINED

Islamic criminal justice system is permutation of Islamic trial processes and practices (involving pre-trial stage, arraignment of the accused person before the court, his trial and conviction or acquittal as the case may be) with a set of relevant institutions. It follows therefore that Islamic criminal justice system involves the procedure of implementing Islamic criminal law which is divine in nature. We say divine because Islamic criminal law is Islamic religious law that deal with crime. The primary sources of the law are the holy Qur'an and Hadith.³

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Islamic criminal justice system equally encompasses criminal procedure and the attendant institutional arrangements. It is a system of processes and institutions directed towards seeing that the accused person, the victim and the generality of the society gets justice in as far as their case relates to violation of Islamic criminal law. This system involves the stages of deterrence and mitigation of the crime, sanctioning of those who violate the law, conviction and rehabilitation efforts. The components of the Islamic criminal justice system therefore include law enforcements, prosecution, defence by the accused, court trial and post-conviction rehabilitation.

IV. TECHNOLOGIES THAT AFFECTS THE CRIMINAL JUSTICE SYSTEM

Clearly technological revolution that is sweeping the world has not spared the criminal justice system from its broad sweep.⁴ As such there are technologies that profoundly affected the system. Most of them are associated with law enforcements agencies and are inadvertently used because they were of common usage. They include surveillance vehicles, web applications that facilitate effective cross-jurisdictional information and data sharing and exchange. There are also automatic licence recognition system,⁵ computers, computer data-based system, CCTV cameras,⁶ GPS tracking,⁷ computerised crime maps,⁸ gunshot detection system,⁹ bullet-proof vest, taser,¹⁰ technologies for drug testing, DNA,¹¹ fingerprint scanning and concealed weapons detection, robots,¹² robotic drones¹³ as well as integrated public alert and warning system. Other technologies have to do with scientific tests such as lattes test, *absorptinclusion* test and absorption-inhibition test. There are those that have to do with technical methods such as *electrophoretic* method for typing polymorphic proteins-such as *phosphoglucumutase*, *esterase D*, *glyoxalase haemoglobin* and *haptoglobin*.

There are also considerable ranges of forensic science technologies, most of which are laboratory-based (such as those that relates to toxicology and drug analysis). Some are based on expert interpretation (such as those relating to writing sample, fingerprints, tool marks, bite marks and specimens like hair or blood). There are also technologies that are based on biological evidence (such as genetics).

In the court system, there are audiotape players that rely on auditory presentation in the courtroom, speakers, video conferencing equipment, wired or wireless network, speech-to-text/text-to-speech devices, laser disk players,¹⁴ VCRs,¹⁵ telephone, laptop computer,¹⁶ electronic whiteboard,¹⁷ e-filing system,¹⁸ and e-cause list system.¹⁹ In fact all technologies that ensure the safety of the court environment and those that ensures effectiveness of the system can come here.

V. THE BENEFITS OF THE TECHNOLOGY

Technology offers an ever-expanding array of benefits to criminal justice system. It makes investigations and prosecutions more efficient and effective; it also eases crime detection and enables offenders to be brought into justice.²⁰ In general term the benefits of technology in criminal justice system includes determining if a crime has been committed, how it was committed, when it was committed and the sequence of events that occurred at its commission; It helps in identifying the victim of the crime, exonerating the innocent, identifying the guilty, complementing less reliable evidence and absolving the wrongly convicted; It link the guilty to previously unsolved crimes, resolve cases that took place long ago and save investigators' time and effort.

The criminal justice system is not infallible and sometimes a search for truth may take a tortuous path. Thus, technology (such as forensic technology) greatly helps in exonerating the innocent and ensuring that the guilty were brought to justice.²¹ Take the case of DNA (*deoxyribonucleic acid*) and fingerprint for example. DNA can be used to identify criminals with incredible accuracy. By the same token, it can be used to clear suspects and exonerate persons mistakenly accused. In the case of *District Attorney's Office for the Third Judicial District V. Osborne*²² a prostitute had been beaten with an axe handle, shot in the head and left in an Alaskan snow bank. On a combination of eye witness testimony and DNA evidence from a condom found at the scene, the defendant was convicted of kidnapping and sexual assault.

Conversely, in the case of *State V. Mark Diaz Bravo*²³ the defendant was convicted by Los Angeles County Court in California for raping a patient at psychiatric hospital where he worked. The conviction was based, inter alia, on the evidence of blood and semen tests done on a blanket and a bed sheet found at the scene of the crime. The test showed a blood type consistent with the convict's blood. The convict later filed a post-conviction motion in the Superior Court of Los Angeles County. The court ordered the blanket and the sheet to be released for DNA test. The report of the DNA test stated that none of the tested semen had DNA that matches that of the convict. He was therefore released having been exonerated.

Clearly, technology has given the police and the court a means of identifying the perpetrators of crimes with a high degree of confidence. Take another example of a database of finger prints. It assists in determining if a person in custody for one crime is wanted for another crime, perhaps in another state, resulting in the successful resolution of previously unsolved crimes.

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VI. TECHNOLOGY IN THE PERSPECTIVES OF ISLAM

Technology is series of objects and networks that flows from knowledge; something the prophet (SAW) commands all Muslims to seek even as far as China which, during the classical period of Islam was considered to be a long distance.²⁴ In another Hadith the prophet (SAW) was reported to have said “for one who treads a path to knowledge, Allah will make it easy to paradise.”²⁵ In addition to that, the holy Qur’an contains numerous references to knowledge and its importance.²⁶ The first verse revealed to the holy prophet focus on the importance of acquisition of knowledge. It asks the prophet to read. Says it;

Read in the name of thy Lord and Cherisher who created,
Created man of mere clot of congealed blood.
Read and thy Lord is most beautiful.
He who taught (the use of) the pen. Taught men that which he know not.²⁷

Some Muslim jurists were quick to explain that Islam is in support of application of technologies even if they were from foreign lands so long their application did not go contrary to the values of Islamic principles. They were quick to give the instance of the early period of Islam when cultivation and husbandry methods were embraced by Muslims from the imperial dynasties of Persia and al-Sham.²⁸ Also a lot of implements were traded from that region into the city of Medina. Still in that early time, after the Battle of *Badr*,²⁹ some pagan captives were allowed by the prophet (SAW) to redeem themselves by teaching the Muslims some aspects of their knowledge. What was learnt from the captives was later put into practice by the Muslim populace.

Still during the early period of the emergence of Islam, the practical purposes for determining the accuracy of the lunar calendar, direction of Mecca and the time of prayer led to the development and practical use of astronomical instruments; also the need by the prophet’s companions to write down revelation in the form of book led them to apply the paper-making techniques from foreign lands. So were the problems of trade over long distance, it led to the development of navigational techniques.³⁰

Apparently there is no conflict between Islam and technology in so far as it helps the Muslims gain increased understanding of how the world works; also in so far it is within the framework of values derived from Qur’an and Hadith. Qur’anic verses encourage study and contemplation of the universe that surround us. Therefore any appliance or system that enables Muslims to know the scheme of creation and development cannot be rejected by Islamic law.

During the golden age of Islam which is between 750-1050 AD, Muslims adopted far-off technologies for water and agriculture to address the problems of the dry and arid nature of the Arabian land. This resulted in the introduction of elaborate irrigational and engineering systems such as the water wheels, reservoirs and aqueducts. Furthermore the techniques of distillation of substances and that of manufacturing iron ore, steel and other metals were introduced. More so, the methods of nursing citric fruits and palm-date trees became adopted.

The nomadic nature of the Arabs and the mobility of the pilgrims and mercantile caravan made the Islamic world of that time adopt workable geographical technologies; observatory centres were established, recording instruments installed and star-maps and celestial globes which recorded astronomical data on plain and spherical surfaces made.

The “Golden age” period of Islam witnessed the reception of a lot of ideas and techniques such as gun powder making techniques, from India and China. Agricultural mills apparatus from Chinese region were adopted, so is the technique of gunpowder making. In the Mediterranean peninsula the technology of constructing three-masted merchant vessels was received with enthusiasm. In other words, the Muslim world becomes active participants in the technological development of that time. They not only adopt foreign technology, they equally participated in their formation. Islamic scholars made contributions in the field of mathematics, medicine and astronomy.

Avicenna³¹ and Ar-Razi³² at that time were the final authorities for European medicine for more than 500 years.³³ In mathematics, Islamic scholars brought indices number system to new heights, developed algebra (*al jabar* in Arabic) and *trigometry* into independent disciplines and combined *Euclidean geometry* with Indian ideas to create system that profoundly influenced Islamic architecture and design.

VII. USING THE TECHNOLOGY IN ISLAMIC CRIMINAL JUSTICE SYSTEM

Technology, as the central drive for a modern world, presents new challenges on Islamic criminal justice system. Whatever being the challenges, however, faith is not a key problem in its application. This is because the application of the science of forensic criminology can be found in the Qur'anic verse that speaks of the dramatic encounter between prophet Yusuf (AS) and Zulaikha the Aziz's wife.³⁴ Zulaikha was so taken by the handsomeness of prophet Yusuf (AS) and she tried to seduce him. As he rushes to the door to escape, she ran after him and caught hold of his shirt, like a drowning person clinging to the boat. In her tugging, she tore his shirt from behind. At the door they suddenly met her husband. So she immediately changed her tone to anger and accused Yusuf (AS) of molesting her (to give the impression that she was innocent).

Though bewildered, Yusuf (AS) denied this twist of events and so the issue was open for adjudication. A wise witness proffer a way out by explaining that the basic principles of forensic criminology in a sexual assault case is that, if the shirt of the accused is torn from the back, then it is most likely caused by the female who is in pursuit of her desire. Thus in this case the female is most likely at fault. And if the shirt of the accused is from the front, it is likely caused by the victim trying to prevent the assault of the accused person. Thus in this case the male is most likely at fault. The holy Qur'an says it all;

And a witness from her family testified,
If his shirt is torn from the front, then she
Has told the truth, and he is of the liars,
But if his shirt is torn from the back, then
She has lied, and he is of the truthful.³⁵

The Muslim world is not different from the rest of the world and as such most of the technologies have found adoption and use in the Islamic countries. This is evident in the growing availability of technology for business in most of the Islamic countries, especially in Arabia. ICT had been adapted to a number of Islamic activities the result of which gives birth to a lot of Islamically-customised software and application programmes. The www technology was even espoused.³⁶ Appropriately, 44% of worldwide internet users were from Asian countries with 60% of the Muslim population.³⁷ Similarly, India and Indonesia which have around 204 million and 177 million Muslims respectively contributed to 140 million internet users.³⁸

The potential benefit of technology in criminal justice system made a number of Muslim counties to embrace it. In Malaysia, the entire court administration is digitised.³⁹ Also in Saudi Arabia, the Ministry of Justice which is responsible for the operation of Saudi courts had installed end-to-end Cisco Broadband Network across its location.⁴⁰

It's Ministry of Interior, which serve as crime-solving agency (and therefore crucial in the criminal justice administration), runs considerable number of regional and municipal crime laboratories of modern standard.⁴¹ Also as far back as 2008, forensic speaker identification evidence was accepted as one of legal evidence in Indonesian courts. The first case of using this evidence in court was a case of corruption handled by the Indonesia Corruption Eradication Commission.⁴² Moreover, in Pakistan the Supreme Court had declared DNA evidence as admissible in rape cases.⁴³ Similarly, in the judicial history of Egypt, DNA testing is acceptable form of evidence.

The case of *Hinnawi V. Fishawi* is an exemplary case where the Family Court of al-Khalif in Cairo handed down a decision of parties to undergo DNA test.⁴⁴ Though this case is actually civil in nature, the result of DNA testing in criminal matters in Egypt and many more Arab countries is considered decisive evidence (*dalil nafyi wa-ithbat qat'i*).⁴⁵ Even in Saudi Arabia this technology had been adopted. This is evident from the explanation of Dr. Sheik Salih Al al-Sheik the President of the Courts of Summary Justice in Riyadh, Saudi Arabia. He said that the probative value of DNA testing in Saudi Courts is that of strong circumstantial evidence (*qarim qawiyya*) rather than the decisive proof (*dalil ithbat* or *dalil qat'i*). However, where strong circumstantial evidence supports the results of DNA testing, then the probative value of the combined evidence is even stronger (*akthara ithbat*) than that of oral evidence.⁴⁶

It needs to be understood that, though technology is more likely to be aligned with the western world, creating the impression that Islam placed an obstacle on it, Islam had, historically, been a participant in technology. This is evident on the fact that at the time Islam came into the world, it met highly civilised empires of Byzantine,⁴⁷ Sassania,⁴⁸ Greece, Rome⁴⁹ and Achaemenia⁵⁰. However Muslims were quick to grasp the technological development of that time in the field of astronomy, engineering, medicine and mathematics.⁵¹

VIII. CONCLUSION

Crimes nowadays are becoming complex and intriguing and only the dynamism of technology can prevent, detect, prove or disprove them. The detection and proof of an online 419 scam, for instance, may be outside the traditional lay system. Similarly some intoxicating substances may not be identified in a lay way known before without the use of technology. Even to detect the whereabouts of some suspects requires use of technology. What is clear to us therefore is that technological intervention in criminal justice system is not only desirable but inevitable.

Islamic criminal justice system cannot fail to appreciate the key aspect of technology-its role in enhancing or extending capacity. After all, criminal justice is like science, sometimes it involves “rational thought” and “collaboration” which demands the use of technology.⁵² These reasons are enough to legitimise its involvement in justice process. It need not be forgotten that technological revolution forms part of our lives and has come to stay. It has already been integrated into all facets of today’s life; very importantly it is not something alien. In simple definition, technology is just an aspect of knowledge, something greatly been part of Islam. Therefore application of technology in the Islamic criminal justice system is aimed at improving the quality of justice, access to justice and public trust on the justice system. The Islamic law has the principle of *istihsan* (judicial preference) as one of its sources. This principle involves setting aside an established analogy in favour of an alternative ruling which serves the ideals of justice and public interest in a better way.

Islamic criminal justice system stands to be more effective and efficient with technology. In particular it is indispensably helpful in the areas of policing and detection of the crimes. All what is required is to have recourse to the basic teaching of the Qur’an so that the requirements of Islamic criminal law were not compromised. This is in view of the fact that Islamic law is a divine law and has placed high level of proof for some crimes and also had been specific on others.

ENDNOTES

¹Holf T, Technology and Criminal Justice System <<http://www.oxfordbibliography.com/view/document/abo> > at 9/1/15.

² Galetta A, The Changing Nature of the Presumption of Innocence in Today’s Surveillance Societies: Rewriting Human Right or Regulating the use of Surveillance Technology? European Journal of Law and Technology, Vol. 4, No.2 (2013).

³ Islamic jurisprudence added secondary sources of the law to include *ijma* (consensus of the Muslim jurists), *qiyas* (analogical deduction in line with Islamic principles), *Istihsan* (the principle of solving the interest of islam and public as determined by Islamic jurists) and *istihab/urf* (principles of customs)

⁴ Traves J, Technology in Criminal Justice: Creating the Tools for Transformation < <http://www.nij.gov/about/speeches / past-directors/pages/acjs.aspx/> > at 8/1/15.

⁵ This is a camera mounted on a police vehicle. It can automatically run any single licensed plate so as to see if the vehicle is stolen or there is a warrant for the arrest of the driver.

⁶ Close-circuit television camera, CCTV, produces images or recording for surveillance purposes and can be either video camera or digital stills camera.

⁷ GPS is a Global Positioning System which is a space-based satellite navigation system that can be used to locate position anywhere on the earth.

⁸ This assist in pinpointing to the incidence of crime.

⁹ This system uses electronic sensor installed in high crime areas to help in quickly detecting where any gunshot comes from.

¹⁰ A taser is a non-lethal single shot weapon used by police to temporarily incapacitate a suspect through the use of an electrical current.

¹¹ DNA makes it possible to match a biological sample to an individual at a mathematical level that appreciate absolute certainty.

¹² Robots are used to check out dangerous situations such as diffusing of a bomb.

¹³ This provides a bird’s-eye-view of a crime scene without having a person going up the air.

¹⁴ This is an electro-mechanical device designed to play video and audio stored on laserdisc.

¹⁵ VCR (video cassette recording) is an analog recording format.

¹⁶ Laptop is the most convenient personal computer for courtroom use because of its portability and built-in monitor. It can be used to display digitized videotaped transcript of deposition or to play digitized audio files.

¹⁷ For drawing diagram and list of points and other functions of the blackboard or flipchart.

¹⁸ This involve the Court Registry to receive the soft copies of document.

¹⁹ With this system, lawyers don’t need to be in court in order to know whether a case or matters are listed for the day.

²⁰ Technology and its Role in Criminal Justice, Articlesbase < <http://www.articlebase.com/criminal-article/technology-and-its-role-in-criminal-justice/> > at 20/1/15.

²¹ Forensic technology is a technology of divers fields of science including anthropology, chemistry, engineering, genetics, medicine, pathology, phonetics, psychiatry and toxicology.

²² 557 US (2003).

²³ Connor E et al, Convicted by Juries, Exonerated by Science: Case Study in the use of DNA Evidence to Establish Innocence After Trial < <http://webcache.googleusercontent.com/search?rlz= icl> > at 23/1/15.

²⁴ Narrated by Ibn Majah. Presently the distance is approximated to be 5773km (DistanceFromTo < <http://www.distancefromto.net/distance-from/saudi-arabia/to/china> > at 11/1/15).

²⁵ Narrated by Muslim.

²⁶ In Qur’an 39:9, for instance, Allah says “ say, are those who know equal to those who do not know.”

²⁷ Qur’an 96:1-5.

- ²⁸ Al-Sham is a region bordering Mediterranean sea, usually known as the Levant or the region of Syria.
- ²⁹ This battle is a key battle in the early days of Islam fought in 624 CE (2 AH in the Islamic calendar).
- ³⁰ Science and Technology in Medieval Islam <http://www.mbs.ox.ac.uk/science/islam-education/docs/science-and-technology-medieval-islam-tecnology-notes.pdf> at 23/1/15.
- ³¹ Avicenna is Ibn Sina (Abu Ali al-Husayn ibn Abd Allah ibn Ali ibn Sina, C.980-June 1037) described as the father of early modern medicine.
- ³² Al- Razi (Muhammad ibn Zakariya Al-Razi C. 865) is a famous muslim physician.
- ³³ Aramco World Jan-Feb, 1969.
- ³⁴ Zulaikha is the wife of the Governor of Egypt and the Chief Officer of the King who happened to buy prophet Yusuf when he was sold in Egypt.
- ³⁵ Qur'an 12:27-28.
- ³⁶ See for instance al-islam.com (<http://www.al-islam.com>) managed by Harf Information Technology.
- ³⁷ Hussein S. et al, The Impact of Information Technology on Islamic behavior < <http://www.jmost.org/wp-content/uploads/jmestn42350200pdf>> at 11/1/15.
- ³⁸ ibid
- ³⁹ Azmi Z .T, Using Technology to Improve Court Performance: Malaysian Experience. < <http://www.apjrf.com/beiging-malasia.pdf>> at 11/1/15.
- ⁴⁰ Ministry of Justice modernizes Technology Platform < <http://www.cisco.com/c/down/en/us/solutions/collateral/data-centre-virtualisation/saudi-moj.pdf> >
- ⁴¹ Saudi ministry engages support to upgrade IT systems and improve security, Microsoft Case Studies, < <http://www.microsoft.com/casestudies/premier-support-for-enterprise/saudi-arabia-ministry-of-interior/saudi> > at 11/1/15.
- ⁴² Sanwono J et al, Forensic Speaker Identification and Experience in Indonesian Courts, proceedings of 20th International Congress on Acoustics, 2010.
- ⁴³ DNA Evidence in Rape Cases: For Religious Leaders it is still a Question Mark, < Down.com <http://www.down.com/news/101842> >at 16/1/15
- ⁴⁴ Shaham R, The Expert Witness in Islamic Courts: Medicine and Craft in the Service of Law (University of Chicago Press) p 173.
- ⁴⁵ ibid
- ⁴⁶ Shaham, op cit at p.171.
- ⁴⁷ Ibid,
- ⁴⁸ Sassanian Empire is one of the main powers in Western and Central Asia. It encompasses today's Iran, Iraq Eastern Arabia (Bahrain, Kuwait, Oman, Qatar and UAE), the Levant (Syria, Lebanon, Israel and Jordan), the Caucasus (Armenia, Georgia, Azerbaijan, Dagestan and Abkhazia), Turkey, Egypt, Central Asia (Afghanistan, Turkmenistan, Uzbekistan and Tajikistan), Yemen and Pakistan.
- ⁴⁹ Rome has large territorial holding around the Mediterranean Sea and in Europe, Asia and Africa.
- ⁵⁰ This empire is based in Western Asia. Its power stretched to the Balkans and Macedonia.
- ⁵¹ The World of Islam in Science and Technology < <http://webcach.googleusercontex.com/search?rlz=ici> > at 11/1/15.
- ⁵² McGuire M and McGuire M.R, Telecommunication, Crime and Justice: The Question Concerning Technomia (Routledge 2012) p.200