Ethical Analysis of the Full-Body Scanner (FBS) for Airport Security

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ABSTRACT

The deployment of full-body scanner machine in airports has generated serious concern for airport users. Apart from the fact that many are yet to know the health implication of a long-term exposure to radiation from this machine, more still believe it infringes on fundamental human rights. Of particular interest to the Muslims is its religious permissibility or prohibition. This paper examines various ramifications of the application of the body scanner on air passengers. It discusses its health-related issues and delves into the Islamic perspective on its use. It finally gives recommendations, which could be adopted to make airport safer for all users while not jeopardizing the religious inclination of all.

Key words: Whole Body Scanning, Advanced Imaging Technology, Health Hazards, Ethical Perspectives, Airport Security.

Introduction

A full-body scanner is a device that creates an image of a person's nude body through their clothing to look for hidden objects without physically removing their clothes or making physical contact. They are increasingly being deployed at airports and train stations in many countries (Laskey M., 2010; Dictionary, 2006).

One of the technologies used under the name of "full-body scanner" is the millimeter wave scanner, the active form of which reflects extremely high frequency radio waves off the body to make an image on which one can see some types of objects hidden under the clothes. Passive millimeter wave screening devices rely on only the raw energy that is naturally emitted from the human body or objects concealed on the body, passive devices do not transmit millimeter waves. Another technology in use is the backscatter X-ray (Laskey M., 2010; Harwood, M.).

The two merits of full-body scanners over a physical strip search are that it is quicker (takes only fifteen seconds) and that people do not have to be touched in a manner that some might consider offensive. A disadvantage is that the scanners are being used to perform routine, virtual strip searches without probable cause which opponents claim are illegal and violate basic human rights. Furthermore, the true long-term health effects of the active, radiating technologies are unknown. Passive millimeter wave screening is known to be safe because its technology does not require radiating the subject (Laskey M., 2010; Harwood, M.), (Smith, S. W., 2010; Business Wire 2002).

Related Works:

Whole Body Imaging (WBI) is an umbrella term that includes various technologies that can produce images of the body without the cover of clothing. These screening systems increase the threat detection spectrum from weapons and "single threats" to "multi" or "all-threats", including explosives, and even biological and nuclear contaminants (Business Wire 2002; PATH 2010; Stoller, G., 2010).

All WBI technologies can detect metallic objects, plastic and ceramic weapons, explosives and other threats hidden beneath the clothes without the need of a pat down or strip search: they can indeed reveal types of material that a conventional Walk-Through Metal Detectors (WTMD) can’t detect - such as prohibited nonmetallic items, which at present, can be found only through hand searching procedures. Another important asset of a WBI system is that – at least theoretically - it provides a comprehensive body search in just a few seconds (Stoller, G., 2010; NCRP, 2004; Policy Report 2010; Felber, F. S., et al., 1996).
There are two main categories of WBI: “walk-in” cabinets, which scan one person at a time; and "stand-off" scanners, which are pointed at crowds. In their turn, each category can use different technologies, based on different kinds of electromagnetic waves. The walk-in systems typically use the reflection of the waves off the skin to detect any unusual shapes on the body. They are active systems, say, they project beams on the subject (Policy Report 2010; Felber, F. S., et al., 1996). Stand-off scanners can be either active or passive (passive systems collect waves emitted, or reflected from the environment, by the body). WBI systems include various technologies with different levels of maturity. Technologies at validation and demonstration phases include ultrasound imagers, SQUID (Superconducting Quantum Interference Device) and quadruple resonance analyzers, T-ray imagers. More mature technologies include millimeter-wave holographic imagers, and x-ray scanning systems (Felber, F. S., et al., 1996; Costianes, P.J., 2005; Smith K. J., 2003).

Ultrasonic imaging technology is largely used in medicine to investigate internal organs. For security purposes ultrasounds are widely used for object detection and motion detection (Costianes, P.J., 2005; Smith K. J., 2003). Ultrasonic detectors for remote detection of concealed weapons have also been commercialized. JAYCOR has recently developed and demonstrated an Ultrasound Imaging Sensor for detecting and imaging weapons concealed under a person’s clothing. The sensor includes a source of high-power ultrasounds suitable for remote imaging in air (T5000 and T8000; Duncan W. D., et al. 2008). The producer claims the “sensor can detect metallic and non-metallic weapons concealed on a human body under heavy clothing at ranges up to 8 m and can image concealed weapons at ranges up to 5 m with a centimeter-resolution” (T5000 and T8000; TSA Blog 2010).

SQUID and Quadruple Resonance Analysis provide images similar to magnetic resonance imaging. They are currently used chiefly for medical imaging, and are being investigated for the detection of explosives in checked luggage. In principle they could also provide body imaging for security screening purposes, with the advantage of being able to also detect and test different chemicals and substances, including minimal traces of explosives. One potential problem arises from the fact that they can interfere with the function of implanted medical devices (Policy Report 2010; T5000 and T8000; Airline Report, 2010).

T-ray technology uses electromagnetic radiation from 1,000 GHz to 10,000 GHz, in the so-called tera-band. Terahertz are non-ionizing radiations, thus without the health risks entailed by X-rays. Most T-ray scanners are active systems, say; they emit radiation and detect objects by noting differences in absorption/reflection. Instead a few T-ray scanners, known as passive imagers, rely on the small amount of T-radiation emitted by all warm bodies (Policy Report 2010; Airline Report, 2010; Shapiro D. L., 2004). They find objects beneath people’s clothing by noting the difference in the amount of radiation emitted between the warm body and the cooler objects. T-ray technology can also detect the nature of hidden objects and materials (Duncan W. D., et al. 2008; CBS News 2009; Shapiro D. L., 2004).

Many materials have unique spectral profiles in the terahertz range. This offers the possibility to combine spectral identification with imaging. For instance, plastic explosives reflect terahertz waves in a very specific way that makes them distinguishable from all other materials. T-ray passive systems can be consequently used for "stand-off" scanners, which could remotely detect explosives, and weapons, hidden under clothing by an individual in a crowd. Most current T-ray imagers are still short-range and spectroscopy is often too slow for real life applications. Yet technologists predict that T-ray scanners that can do both imaging and spectroscopy at 50 meters or more will be available within five years (Duncan W. D., et al. 2008; EU H & S, 2006).

Millimeter Wave (MM-wave) Technology is based on radiation belonging to the millimeter (from 30 GHz to 300 GHz) and sub millimeter (from 300 GHz to 1,000 GHz) regions of the electromagnetic band. Imaging technologies can be either passive or active. Active MM-wave systems use non ionizing radio frequency energy to generate an image based on the energy reflected from the body. The waves penetrate clothing but are reflected from the skin and other objects. The three dimensional image resembles a photograph negative. Passive MM wave systems are used to scan remotely, overtly or covertly, large numbers of people as they move in a continual stream through restricted or controlled areas, such as border checkpoints, airport terminals, or outdoor arenas (T5000 and T8000; Duncan W. D., et al. 2008; EU H & S, 2006). Images are low resolution body images in which clothing and other materials appear transparent. Some passive systems activate warning messages when they detect any concealed object. MM-wave receivers can also be coupled with infrared receivers. The two receivers used in tandem, and linked with a computer imaging system, would have a higher discriminating power than MM-wave passive system alone (T5000 and T8000; Duncan W. D., et al. 2008; EU H & S, 2006; Klitou, D., 2008; Shapiro D. L., 2004).

X-ray scanning systems include backscatter systems and transmission systems. X-ray backscatter systems use low intensity X-rays scanned over the body surface, and reflected back from the body. Backscatter produces a narrow beam that scans the subject at high speed left to right and top to bottom (Policy Report 2010; Duncan W. D., et al. 2008). Most of the radiation is scattered near the surface of the skin, this makes the system effective in imaging objects hidden under clothing. The low intensity X-rays can hardly penetrate through the skin and cannot detect objects hidden in body cavities. A typical scan lasts about eight seconds, during which a person is scanned twice, once from the front and once from the back (Policy Report 2010; T5000 and T8000;
Duncan W. D., et al. 2008). The resulting image is a two dimensional one, similar to a chalk etching. Backscatter X-ray can be also used for partial body scanner to screen persons with casts, bandages and prosthetic limbs for concealed weapons and contraband. Backscatter permits rapid inspection without imposing too much stress, and discomfort to the disabled person. Transmission systems are closer to medical X-rays, in the sense that the radiation traverses through the body. Transmission systems can detect objects that have been swallowed or hidden in body cavities and have been used to screen workers in diamond mines in order to replace orifice search (Policy Report 2010; Smith K. J., 2003; Duncan W. D., et al. 2008).

Applications of Body Scanners:

According to the European Economical and Social Committee (EESC) opinion on Aviation security for passengers, adopted at its 448th plenary session, “considering the significant increase of passengers travelling by air forecast for the upcoming years, the current security screening of passengers and luggage does not propose a sustainable model”. The Improving aviation security, notably the detection of prohibited items, while softening the “burdensome process” of people screening is a worldwide priority in airport management (Policy Report 2010; EESC 2009).

Today passengers who have to undergo a full-body pat down belong to two broad categories: 1) they are passengers holding passports from countries included in a list for enhanced screening, or taking flights that originated or passed through any of these countries; or 2) they have set off the metal detector alarm. As more people have surgical implants and more people are travelling from and through “risky” countries, the number of people who need to undergo to physical search is increasing (Policy Report 2010; Airline Report, 2010).

Hand searches are time-consuming and labor-intensive procedures. They are also only partly effective. In order to perform appropriate pat down search, screeners must avoid touching sensitive areas with anything except for the back of the hand and any excessive squeezing or groping of sensitive areas. They must also avoid requiring a passenger to expose private areas of the body, and there is indeed evidence that physical pat-down is not effective in locating items concealed in sensitive body areas. As a consequence – although no systematic studies are available – it is realistic to argue that pat downs can be unreliable (NCRP, 2004; Policy Report 2010; Airline Report, 2010).

There is also anecdotal evidence that passengers feel pat-down procedures embarrassing and invasive because they involve screeners touching people near sensitive body areas. In particular female travelers have been complaining about pat-downs. Although very specific guidelines and boundaries have been established by national airport authorities, inappropriate pat-down searches are still episodically reported (Stoller, G., 2010; NCRP, 2004; Policy Report 2010; Shapiro D. L., 2004).

Health Issues:

A major concern of critics of WBI is the long term adverse health effects exposure to this machine will cause. It is argued that the application of this technology to scan human bodies is still novel and enough data have not been collected to guarantee the safety of its use. The whole process it is still being viewed as sheer experimentation which could proved disastrous in the not so far future (Stoller, G., 2010; Policy Report 2010; Airline Report, 2010). These assertions are based on the following:

In 2008, the European Union (EU) attempted to mandate the use of the full body scanner in airports. European legislators opposed the move, citing possible radiation dangers and calling for more studies on the health and privacy involved (Policy Report 2010; EU H & S, 2006).

In a letter written to Dr. John P. Holdren, Assistant to the United States President for Science and Technology, on April 6, 2010 by Medical Doctors and Professors of the University of California San Francisco, serious health concern issues were raised about the directive of the presidency with regard to use of these machines (Policy Report 2010; Klitou, D., 2008). The letter reads in part;

“We are writing to call your attention to serious concerns about the potential health risks of the recently adopted whole body backscatter X-ray airport security scanners. This is an urgent situation as these X-ray scanners are rapidly being implemented as a primary screening step for all air travel passengers. Our overriding concern is the extent to which the safety of this scanning device has been adequately demonstrated. This can only be determined by a meeting of an impartial panel of experts that would include medical physicist and radiation biologist at which all available relevant data is reviewed” (Policy Report 2010; Smith K. J., 2003; Klitou, D., 2008; Shapiro D. L., 2004).

The concluding part of the letter reads as follows; “There are good reasons to believe that these scanners will increase the risk of cancer to children and other vulnerable populations. We are unanimous in believing that the potential health consequence needs to be rigorously studied before these scanners are adopted” (Policy Report 2010; Smith K. J., 2003; Klitou, D., 2008).
This letter inferred that, there is high possibility of the radiation from the machine causing cancer and sperm mutagenesis. In response to this, government officials say that the amount of X-ray emitted by these machines are quite negligible and does not interfere with the human systems. It is claimed that one would have to be exposed to over a thousand doses from the machine to get an equivalent dose one receives from cosmic rays while travelling inside the aero plane (Policy Report 2010; TSA Blog 2010; EU H & S, 2006).

Moreover, a Biochemist and Biophysicist at the University of California, David Argard, comment on the government official statement by saying “There is no threshold of low dose being OK. Any dose of X-ray produces some potential risk” (Policy Report 2010; TSA Blog 2010; EU H & S, 2006; Klitou, D., 2008).

Furthermore, David Brenner who is the head of Columbia University’s centre for Radiological research while speaking to the congressional Biomedical Caucus says; “About 5 percent of the population—one person in 20—is especially sensitive to radiation. These people have gene mutations that make them less able to repair X-ray damage to their DNA. Two examples are the BRCA-1 and BRCA-2 mutations associated with breast and ovarian cancer” (Stoller, G., 2010; Policy Report 2010; Smith K. J., 2003; EU H & S, 2006; Klitou, D., 2008).

On recipient of this letter from the concerned Medical Doctor, the Presidential Adviser on Science and Technology, Dr. John P. Holdren asked the TSA and the Food and Drug administration to respond, an excerpt of the response reads; The potential health risks from a full-body screening…. Are miniscule…we are confident that full-body X-ray security products and practices do not pose a significant risk to the public health” (Policy Report 2010; EU H & S, 2006; Klitou, D., 2008).

However, Dr David Brenner believes otherwise. He says that this statement only pertains to individuals. He explained that what actually constitute the public health are the millions of people travelling by air who are made to pass through the machine and whose health is jeopardized. The multiplier effect has not been put into the equation he points out. If this were done the number of fatalities could become devastating (Stoller, G., 2010; Policy Report 2010; Smith K. J., 2003; Klitou, D., 2008).

Yet another important point is the possibility of the machine breaking down at any time. Mechanical failures happen from time to time and sometimes they do not give any indications. This implies that abnormally high dose of the X-ray will be emitted and we can only imagine the consequence of this (Stoller, G., 2010; Policy Report 2010; Klitou, D., 2008).

Some pertinent questions that need to be answered are that; do we have enough safety interlock systems that ensure the X-ray beams are shut off if something went wrong? Is machine intelligent enough to predict possible malfunction within itself so as to activate a self-shut down mode? How often can the machines be replaced given their exorbitantly high cost? All these questions remain elusive to the generality of the population (Stoller, G., 2010; Policy Report 2010; Klitou, D., 2008).

The point being made is that the time lag between the testing of this technology and its deployment is extremely suspicious. All are aware the rigorous procedures that are followed before drugs are made available for use, yet we still have cases of drug which passed through due processes causing serious side effects when administered to patients (Stoller, G., 2010; Policy Report 2010; Airline Report, 2010; Klitou, D., 2008).

Privacy Issues:

Many people believe that the use of the body scanner as a routine procedure for screening passengers is a vicious encroachment into the sphere of civil liberties. Since the body screening measures are primarily taken on preventive basis, then all air travel passengers should not be treated as if already guilty of any offence. This activity, it is said, is not a law enforcement procedure done in reaction to any concrete danger or threat posed by any individual (Stoller, G., 2010; Policy Report 2010; Airline Report, 2010).

In a paper written by the European Union Agency for Fundamental Rights, it is said that the use of the machine interferes with the sphere of privacy protected under Article 8 of the European Convention for the protection of human rights and freedom (Stoller, G., 2010; Policy Report 2010; EU H & S, 2006; Klitou, D., 2008).

It is also mentioned that the right to respect for private life is undoubtedly being eroded as individuals may prefer to keep certain details of their lives private. For instance, body deformities, history of mastectomy, prosthetic limbs and transsexual. The images produced by this machine reveal all these facts. This indeed falls in the realm of lack of respect for individual privacy. This intrusion is even more profound when cultural and religious issues are factored into the equation, the paper added. To many, exposure of certain body parts is allowed only in marriage settings. It would therefore be discriminatory and unfair not to respect the values of such individuals (Stoller, G., 2010; Policy Report 2010; Smith K. J., 2003; Airline Report, 2010).

In refuting these claims, the TSA says that the images produced are blurred which means the passengers being screened cannot be recognized. It further emphasized that the images are not recorded. Once personal data are not rendered anonymous, the information through the use of the machine cannot be regarded as revealing the secrets or details of any individual, they claimed (Stoller, G., 2010; Policy Report 2010; Airline Report, 2010).
In response to this, the Islamic Human Right Commission (IHRC), a non-profit making research and advocacy organization based in London says “The fact that a person’s facial features cannot be identified does not mean that the images are any less invasive. The images still show the person’s body in graphic detail where intimate piercing, catheters and all the parts of the person’s body (including those that a person would normally wish to keep private) are seen by the screener. This is gross invasion of privacy.” If truly these images are not archived, the question is where is the images uploaded on the internet gotten from (Stoller, G., 2010; Policy Report 2010; TSA Blog 2010; EU H & S, 2006).

It also said that the adoption of the machine as a primary screening procedure in airports will tear apart the right to freedom of thought, conscience and religion as the movement of those, who view being naked in front of strangers as unethical, will be curtailed. These people will prefer not to travel to certain countries, even if it is crucial they go there, because they feel they cannot compromise their cultural or religious beliefs (Stoller, G., 2010; Policy Report 2010; Shapiro D. L., 2004).

Thairdian News reported on Thursday, March 4, 2010, that two British Muslim women, who were randomly selected to go through the body scanner machine, had to forfeit their tickets to Islamabad. The women declined not to pass through the machine based on medical and religious reasons and were consequently barred from entering the plane. A similar incident also occurred on March 7, 2010, when a delegation of Pakistani lawmakers refused to be scanned with the machine. The head of the Pakistani delegation Abbass Afridi said “We were not scanned when we arrived on March 28 in Washington from Pakistan, but on Saturday when we wanted to travel to another city the authorities told us that we would be scanned,”(Stoller, G., 2010; Policy Report 2010; Shapiro D. L., 2004; Murray, T. H., 1987).

The paper written by the European Union Agency for Fundamental Rights further stresses that the right to equal treatment is also being violated. This is really the case with the implementation of this policy in the United States. Recently, the TSA said it will start implementing enhanced screening on passengers from fourteen countries. All these countries are Muslim countries. The foreign Minister of Algeria, Mourad Medelci, reacted furiously to this listing and termed it “intolerable, inappropriate and inopportune” (Stoller, G., 2010; Policy Report 2010; EESC 2009).

In an on-line debate, Security Vs Liberty, one of the opinions, while reacting to the statement that “security has a prize” emphasized that “Many evil events in history started with good intentions and few cases of injustice. Allowing even a few abuses as an acceptable side effect of improved security will change the tolerance level of the public and lead to a belief that rights such as the presumption of innocence and habeas corpus are a negotiable luxury” (Stoller, G., 2010; Policy Report 2010; Shapiro D. L., 2004; Murray, T. H., 1987).

The opinion further stressed that “Governments are likely to use terror as a convenient excuse for tightening laws and restricting freedoms in order to crack down on areas such as immigration, drug smuggling, fraud, etc, with insufficient public debate. Such an erosion of liberties has a long term impact and, in practice, is unlikely ever to be reversed. This is in agreement with the words of Jean-Jacques Rousseau who said “Free people, remember this maxim, ‘we may acquire liberty, but is never recovered if it is once lost’” (Stoller, G., 2010; Policy Report 2010; Shapiro D. L., 2004; EESC 2009; Murray, T. H., 1987).

Security Issues:

The Opponents of the full-body scanners claim that the technology is ineffective because terrorists have already evolved their tactics with the use of surgically implanted bombs or bombs hidden in body cavities. In one test of the full-body scanners, the machines failed to detect bomb parts hidden around a person’s body (Stoller, G., 2010; Policy Report 2010; CBS News 2009; EESC 2009).

Rafi Sela, an Israeli airport security expert who helped design security at Ben Gurion International Airport, has said: "I don't know why everybody is running to buy these expensive and useless machines. I can overcome the body scanners with enough explosives to bring down a Boeing 747...That's why we haven't put them in our airport”. Two alternatives that have been argued for by experts, such as Prof Chris Mayhew from Birmingham University, are chemical-based scanners and bomb-sniffing dogs. Others have argued that passenger profiling, as done by Israeli airport security, should replace full body scanners and pat downs (Stoller, G., 2010; Policy Report 2010; CBS News 2009; EESC 2009).

Ethical Issues: Islamic Perspective:

The Question of the use of the Advanced imaging technology bothers on the aspect of exposing private parts to strangers and nakedness. This issue has been tackled by many scholars and there are preponderous of references dealing with it such that Muslims are not left in the dark concerning the matter (Shapiro D. L., 2004; Murray, T. H., 1987; Layth, A., 2007).
The books on jurisprudence on the issue being discussed reveals that the use of the full body scanner is unethical and un-Islamic. The scholars agreed unanimously that it is forbidden for Muslims to expose the private sections of the body to strangers except to their husband and certain categories of people (Shapiro D. L., 2004; Murray, T. H., 1987; Layth, A., 2007). Al-Ibn ‘Itiyyah cited a verse in Suratu Nisai, chapter 4 verse 23 of the Holy Quran to buttress this view:

“Forbidden to you are your mothers, and your daughters, and your sisters, and your fathers’ sisters, and your mothers’ sisters, and brother’s daughters, and sister’s daughters, and your foster-mothers that have given you suck, and your foster-sisters, and the mothers of your wives, and your stepdaughters, who are your wards by your wives unto whom you have gone in but if you have not gone in unto them, there shall be no sin upon you and the wives of your sons who are from your loins; and it is forbidden to you to have two sisters together in marriage, except what has already passed; surely, Allah is Most Forgiving, Merciful.”

Explaining this verse, Al-Ibn ‘Itiyyah commented that Allah elucidated to the Muslims those that are not permissible for them to marry. These categories of people are those that are permitted to see and be in closed confines with them. Anybody outside this listing falls into the categories of strangers. To further elaborate on this, he quoted an hadith narrated by Uqbah bn ‘Aamir, which prohibits being alone with women, “Beware, and do not be in close confines with women. One man from the Amsaari asked, “What if is the Amwu (brother of the husband) that is in close confines with the woman? The prophet replied, “Al-Hamwu indeed, is death” (Layth, A., 2007; Muhsin Khan, M.; Siddiqui, A).

He explained that the hadith is explicit in prohibiting staying alone with the opposite sex which invariably means looking at them. Despite the verse cited above, there is limit to what these categories of people can see in the body. Sheikh Ahmad Ismail Yahya writes in his book Al-Deenu Mu’amalah that what these categories of people can see depends on their relationship with each other. It is only the married couples that are allowed to see complete nakedness of each other while others cannot see beyond certain parts (Shapiro D. L., 2004; Murray, T. H., 1987; Layth, A., 2007). He classified nakedness into four which are:

Nakedness between male and males; all parts of the body can be seen except what is between the navel and the knee, also nakedness between male and females; if stranger all her body cannot be seen except the face and the palms. However husbands are permitted to look at the entire body of their wives, furthermore, the nakedness between female and females; can look at each other except what is between the knee and the navel and lastly nakedness between females and males; they are permitted to look at the entire body of the husband but not at strangers (Shapiro D. L., 2004; Murray, T. H., 1987; Layth, A., 2007).

Mustapha Abul gayt, in his book Fiqh Nashri, further supported this stand that only married couples can see the complete nakedness of their spouse (Layth, A., 2007). He explained this through Verse 5-6 of Suratul Muminun; “Surely, success does come to the believers, Who are humble in their Prayers, And who shun all that which is vain, And who are active in paying the Zakat, And who guard their chastity Except from their wives or what their right hands possess, for then they are not to be blamed; But those who seek anything beyond that are the transgressors.”

He says Allah instructs the male to protect the private parts from adultery and fornication. He then allowed it only within the ambit of legal marriage. Mustapha explained that sexual intercourse is greater than looking at private parts therefore the former allows the latter (Shapiro D. L., 2004; Murray, T. H., 1987; Layth, A., 2007).

In the book of Imam Bukhari, it is collected that Aishah (R.A) narrated that she used to have bath with the prophet, both of them sharing the same bowl. This is another proof that married couples are allowed to look at private parts of the body of their spouse (Layth, A., 2007; Muhsin Khan, M.; Siddiqui, A).

The sheikh-l-Islam, Taqi ad-Din Ibn Taymiyyah was asked about concealing of private part from the opposite sex, he answered “Allah’s prophet, peace be on him said, “A man should not look at the private parts of another man, and a woman should not look at the private part of another woman.” He also said, “Conceal your private parts except from your wives and from whom your right hand possesses.” He concluded by saying “Thus looking as well as touching the private parts of others is forbidden on account of obscenity and indecency” (Shapiro D. L., 2004; Murray, T. H., 1987; Layth, A., 2007; Muhsin Khan, M.; Siddiqui, A)

Al-Hassan Al-Ibn Muhammad also contributed to this view in his book, Kitab Nasri fil Ahkaami Nasri Bihasatil Basar (Shapiro D. L., 2004; Murray, T. H., 1987; Layth, A., 2007). Citing the verse of Surat Nur, “Say to the believing men that they restrain their eyes and guard their private parts. That is purer for them. Surely, Allah is well aware of what they do. And say to the believing women that they restrain their eyes and guard their private parts, and that they disclose not their natural and artificial beauty except that which is apparent thereof, and that they draw their head-coverings over their bosoms, and that they disclose not their beauty save to their husbands, or to their fathers, or the fathers of their husbands or their sons or the sons of their husbands or their brothers, or the sons of their brothers, or the sons of their sisters, or their women, or what their right hands possess, or such of male attendants as have no sexual appetite, or young children who have no knowledge of the hidden parts of women. And they strike not their feet so that what they hide of their ornaments may become known. And turn ye to Allah all together, O believers that you may succeed” (Layth, A., 2007).
He explained that the verse ‘that they disclose not their natural and artificial beauty except that which is apparent thereof’ means that they should not intentionally go about showing off their beauty and that they will not be blamed only for what they cannot literally cover (Shapiro D. L., 2004; Murray, T. H., 1987; Layth, A., 2007).

Looking at the bodily parts which are not even private sections of the body of the opposite sex is categorized in Islam as a lesser form of fornication. In Fiqh Nasri, Mustapha Abul Gayt quoted some sayings of the prophet which point to this. Abu Hurairah narrated that the prophet of Allah said, “Allah has ordained certain proportion of Zinah (Adultery) for all parts of the body of the son of Adam, he will surely indulge those part in Zina without fail. The Adultery of the eye is looking, that of the tongue is talking and the soul continues to long to indulge while the groins will then actualize it or not” (Layth, A., 2007; Muhsin Khan, M.; Siddiqui, A).

Imam Nawawi explaining this Hadith said; “it means every person will commit the act of adultery to extent to which he indulges his sense organs. There are some that will do the deed by actually committing Zina while others will do it covertly by looking at the opposite sex or listening to illicit talks (Layth, A., 2007; Muhsin Khan, M.; Siddiqui, A)"

In another hadith, Jarir bn Abdullah asked the prophet what he should do when he looks at the opposite sex mistakenly, the prophet told him to look away immediately (Layth, A., 2007; Muhsin Khan, M.; Siddiqui, A)

Ali Ibn ‘Atiyah quoted a related hadith to show the prime importance of this issue, Umm Salamah and Maimuna, the wives of the prophet, were with him when Abdullah Ibn umm Makhnum sought permission to enter. Thereupon the prophet told them to use their veils, they then questioned him, “but he is a blind man, he cannot see us”, he replied, “If he cannot see you, do you not see him?” (Layth, A., 2007; Muhsin Khan, M.; Siddiqui, A)

He said that if an intruder were to enter ones house without seeking permission according to the verse of Surat Nur Verse 27, 57-59, and one is at liberty to strike his face and inflict injury. This he said is based on the prophet saying; from Abu Hurairah who narrated that the prophet said, “Whoever enters the house of some people without their permission, they can pierce his eyes and they will not be made to pay any fine” (Layth, A., 2007; Muhsin Khan, M.; Siddiqui, A).

The scholars then set aside special contingencies that may permit that opposite sex should look at the private bodily parts. In his book Fiqh Nasri, Mustapha Abul Gayt writes; “There is no disagreement among the scholars that the medical Doctors can look at women that are not their wives. They are permitted to look at private sections of the bodily part for them to make proper diagnosis of ailments. This was supported by a verse in Suratul Hajj thus “And strive in the cause of Allah as it behoves you to strive for it. He has chosen you, and has laid no hardship upon you in religion” (Murray, T. H., 1987; Layth, A., 2007; Muhsin Khan, M.; Siddiqui, A).

Despite this allowance that have been made in situation of extreme contingency, there are still some conditions that must be fulfilled before the male doctor is allowed to see the private section of the body. This includes; Death of female Medical Doctors who could attend to the case, also the husband of the woman or other female personnel should be present during the examination. Furthermore, the Doctor is not permitted to look at private sections of the bodily part for them to make proper diagnosis of ailments. This was supported by a verse in Suratul Hajj thus “And strive in the cause of Allah as it behoves you to strive for it. He has chosen you, and has laid no hardship upon you in religion” (Murray, T. H., 1987; Layth, A., 2007; Muhsin Khan, M.; Siddiqui, A).

With the foregoing it can now be concluded that Advanced Imaging technology which exposes the nitty-gritty parts of the human body is Islamically unethical and as such must be avoided by Muslims (Shapiro D. L., 2004; Murray, T. H., 1987; Layth, A., 2007).

Conclusion and Recommendations:

The primary aim of security is to safeguard the human person in his or her physical, mental, and social integrity. Respect for human dignity, body integrity and privacy (both physical and informational) are thus essential components of any security policy. Security measures which impair human integrity of those which should be protected are self-contradictory and eventually are also less effective. The primary purpose of WBI technology and systems is only to detect prohibited items concealed on the body. We think that WBI is legitimate as far as it fulfills its original purpose. Any different goal, like people identification or profiling, or detection of anatomic and/or medical details, is not legitimate and is not respectful of personal integrity.

Body scanners could humiliate people by unraveling anatomic and/or medical details, and by hurting their feelings of modesty. We are concerned by the lack of clarity about WBI operating procedures, and by confusion and inconsistencies about primary and secondary screenings, voluntariness and compulsion. We are also concerned that body scanners can be used to discriminate against certain groups of travelers. In other words we are concerned that WBI technologies and systems can be misused or used for wider purposes than the detection of concealed objects.
We recommend that respect for the primacy of the human person and attention to his or her needs is the leading principles followed in the establishment of aviation security. We also recommend that the European Commission should propose a specific framework for detection, profiling, and identification technologies for aviation security.

Since the full body scanner machine has a lot of controversies trailing it which is sure to gain more hearings and attention of the public in the nearest future, the following recommendations as alternatives to the use of the advanced Imaging Technology: 1.) Use of the puffer machine which can detect and analyze chemical particles on passengers, 2.) Use of Trace Detection Explosive technology which is non-intrusive, accurate, portable, cost effective and poses no health risk and 3.) Passengers can request for pat-downs which are to be done by same sex.

References


EU, H.S., 2006. In the EU health and safety of electrical equipment is governed by the Low Voltage Directive 2006/95/EC, and by the Council Recommendation 1999/519/EC. Millimeter wave technology is instead covered by the Directive 1999/5/EC on radio and telecommunication equipment.


Stoller, G., 2010. Backlash grows against full-body scanners in airports; USATODAY.com; Travel.usatoday.com; Retrieved on 2010-09-26; pp. 1-2.

T5000 and T8000. Thruvision Systems sells scanners, that can be used effectively when the person being screened is between 6 m and 25 m away., yet these devices lack spectroscopy capacities http://www.thruvision.com/index.html.