Increase Airport Security Without Compromising Privacy:

Commissioner Cavoukian Makes the Case for the Use of "Privacy Filters"

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Whole Body Imaging (WBI) technologies – which have been described in the media as "naked scanners" – raise significant privacy concerns that must to be addressed, says Ontario's Information and Privacy Commissioner, Dr. Ann Cavoukian. "These technologies, which are being deployed as a voluntary passenger-scanning security measure in a growing number of airports around the world, pose a serious threat to privacy since they produce high-quality images of an essentially naked body beneath a passenger's clothes." But the risk to privacy can easily be mitigated through the use of a strong "privacy filter."

The Commissioner released a white paper entitled *Whole Body Imaging in Airport Scanners: Activate Privacy Filters to Achieve Security* **and** *Privacy*, which outlines how the activation of privacy (or modesty) filters can reduce the amount of unnecessary personal details captured by WBI technologies.

"The choice is clear," said Commissioner Cavoukian. "Whole Body Imaging technologies which incorporate privacy filters that render bodily images to mere outlines have great potential to provide privacy-protective security. This is how *WBI* can rise above its negative privacy connotations and became a *Transformative Technology,* delivering both security and privacy."

This paper is the latest in a series of works that build on the Commissioner's *Privacy by Design* concept, where privacy-enhancing technologies are designed directly into new technologies, right from the outset.

Whole Body Imaging technology involves a process by which various imaging techniques are used to scan and create a full body (2- or 3-dimensional) image of an individual, including the surface of the skin and objects on, but not in, the body. Currently, the scan is conducted using one of two technologies:

- Millimetre-wave, which uses non-ionizing radio frequency energy in the millimetre-wave spectrum to detect energy reflected from the body to construct a three-dimensional body image. (The most widely used WBI technology); or
- Backscatter, which uses the reflections from a low-intensity X-ray beam to construct a two-dimensional image.

Both of these technologies are capable of producing highly detailed images of the human body. Fortunately, a number of algorithms serving as privacy (modesty) filters have been developed to greatly reduce the level of personal detail in the images displayed to screeners, while simultaneously highlighting any concealed objects covertly carried on the person.

Governments and public officials should ensure that vendors of WBI incorporate a privacy filter that obscures personal bodily details, and that it is activated when the technology is deployed.

In addition to ensuring that privacy algorithms are applied to WBI images, other design and operational factors are also critical to any overall privacy assessment, stressed the Commissioner. “In particular, there must be a complete prohibition against any retention or transmission of routine (threat-free) images, in any format.”

“Ultimately, it comes down to public confidence and trust that the minimum information required is captured by system operators and used to make decisions affecting travellers,” said Commissioner Cavoukian. “Clear and transparent rules affecting system design and operation, supported by credible assurance methods, will help enormously.” In other words, if no hidden weapon or concealed objects are found during a scan, then no information should be retained – data minimization at its best.