The Guardian - Facial Recognition for Identifying Problem Gamblers

The Guardian is a fully integrated solution for recognising self-registered problem gamblers as they enter and move around gaming venues. The system has been built to ensure that all data captured or used by the system is safeguarded.

At each venue, multiple high-definition cameras will be installed to cover the entranceway and thoroughfares. The cameras will interface with a specialised controller (also located locally in the gaming venue) which will detect people entering or moving around the venue and record unique faces. Once the faces have been detected, they are then sent to the central, cloud-based, facial recognition system, which will compare the facial data received from the cameras against its own trained models to identify any persons of interest. These persons of interest may be self-excluded problem gamblers registered in a database, or venue staff (to verify that regular walk-arounds are taking place). Notifications and alerts will be generated through the QEC Venue Management System so that venue staff are made aware of any potential problem gamblers present.

The facial recognition solution can support thousands of cameras, and execute high-speed facial matching against a database of thousands of registered persons of interest. This will result in a significant improvement in problem gambler detection over the current paper based system. In addition, this solution can also provide person counting and demographic based reporting.

We understand the challenges to implement a solution for nearly 1600 venues across the country: large volumes of data, large numbers of devices, and many varied installations. On top of that, the solution also needs to work reliably. Our team has significant experience building and deploying highly scalable, mission critical applications to key government departments.

The key benefits of The Guardian are:

- **Real-time Facial Recognition** – Identify persons of interest from a large database
- **Flexible Integration** – API's make pulling data out of the system easy
- **Simple to implement** – a fully managed, turn-key solution is provided, with the national problem-gambler database the only external dependency
- **Scalable** – The solution has ability to analyse and find matches across thousands of facial photos, from a network of thousands of cameras; returning results in less than a few seconds.

Our system works in four very simple steps:

CAPTURE	ANALYSE	MATCH	RESPOND
Obtains gaming venue users photos from video stream.	Analyse each face to create a unique facial signature and find key attributes.	Compare facial signature and attribute data against an enrolled database to find match	Notification and alerts are generated when a positive match is found via the venues QEC System.