

# Face Recognition Market Entry

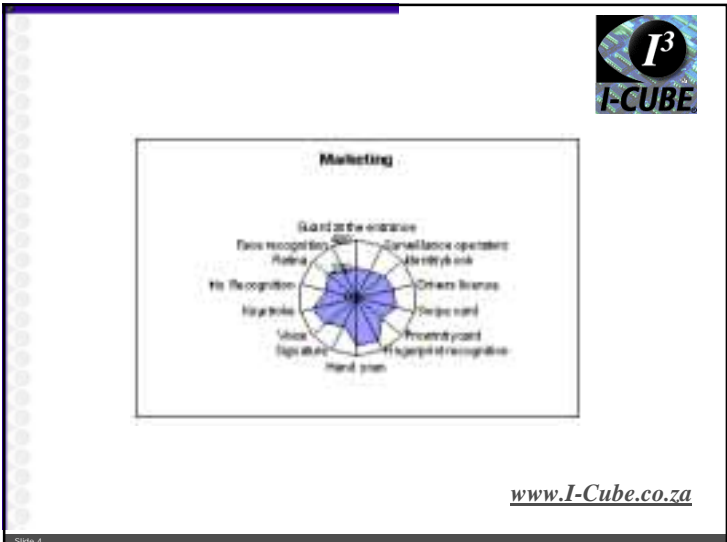
New National Gambling Bill introduces a system of voluntary and court-ordered exclusion of problem gamblers from casinos. A wide range of exclusion techniques for access control could be applied to South African casinos. However, there are no clear criteria on which to base the decision of which system is to be implemented. Various role players to be considered to determine what can be deployable in casino applications.

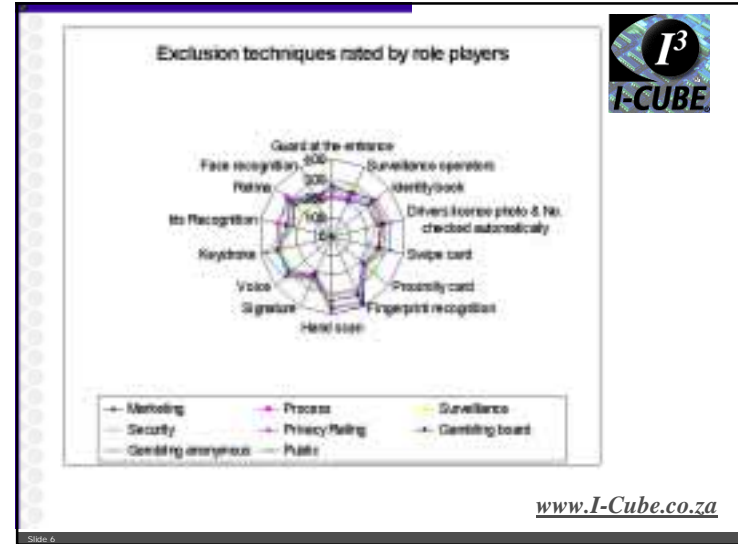
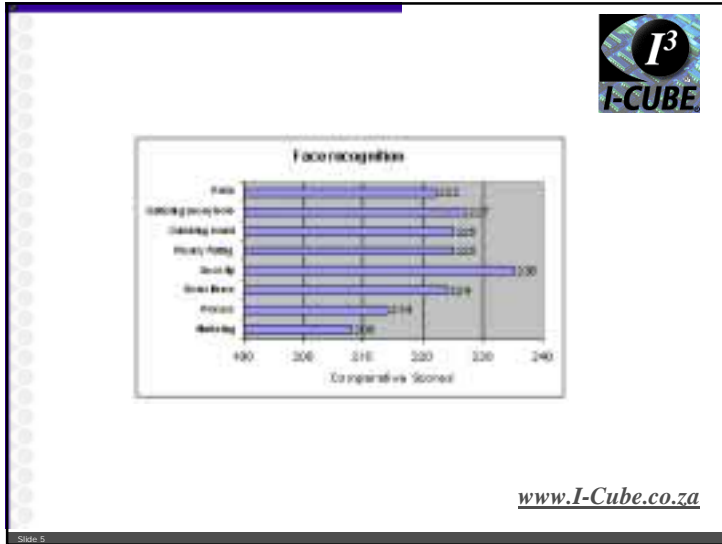
Framework, from a business perspective, is proposed which allows multiple role players and varied criteria to effectively evaluate a range of possible solutions. Framework applied to the role players affected by the proposed exclusion of problem gamblers from gambling. Main role players evaluated a no. of possible exclusion techniques according to a range of NB criteria.

Use dissertation to approach the casinos and other vertical markets to promote the purchase of face recognition for problem gamblers.

### Casino Exclusion Technique Exploration - Framework Development

Gambling companies																									
Company Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Franklin & Marshall Casino																									
Intertec Casino																									
Golden Nugget Casino																									
Golden Gate Casino																									
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## RESULTS

The current solution of a security guard at the entrance is superior according to casino operations department.

The casino marketing division places a high emphasis on ease of use for the public. Of the alternative solutions, comparison-based solutions (using an identity book) were preferred by Gambling Anonymous while card-based solutions (proximity card) was found to be preferable by the public.

The casino surveillance department preferred non-contact, overt, biometric acquisition (such as iris recognition).

Covert biometric acquisition (face recognition) is found to be the most acceptable to all the role players, with fingerprint recognition being the least acceptable.

The application of the framework allowed multimodal exclusion techniques (face recognition linked to casino loyalty cards) to emerge as a promising way forward.

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## Face Recognition SYSTEM DESCRIPTION:

Use face recognition to **assist in identification**.

Manually compare live & saved facial images against a database of saved face images, with an **operator reviewing results**, making decision.

One is using the face recognition system to check if the person has been seen before, with the operator to check the match.

Using Face Recognition one can **IDENTIFY repeat trouble makers** or banned people and take appropriate action.

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## Face Recognition System




[www.I-Cube.co.za](http://www.I-Cube.co.za)  
Analogue to digital converter  
(Frame Grabber)

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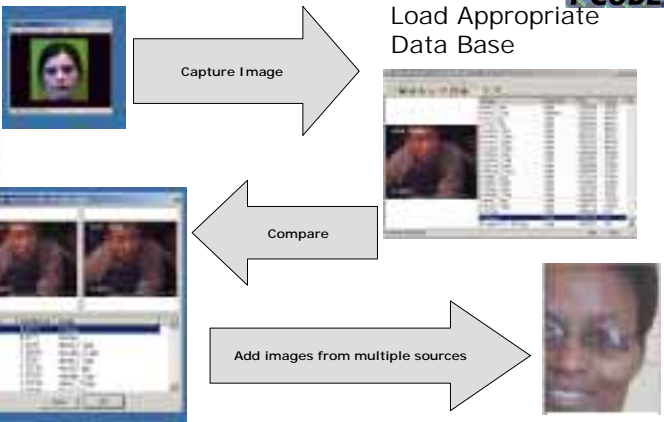
## Face Recognition Value Proposition



- Provide all face recognition requirements;
- System comes with everything required to capture, save, create databases of faces, and compare facial images;
- Free loading of client database of images;
- Customised for casinos;
- Low cost

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## Face Recognition

Capture Image


Load Appropriate Data Base

Compare

Add images from multiple sources


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## Face Recognition Casino client



Typical casino client would have a number of facial databases:

- 1 – Banned clients (Gamblers Anonymous);
- 2 – Common criminals (Police Database).
- 3 – Known card sharks (From other casinos).



Capture multiple images

Compare To White, Male, banned clients, DB

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## Face Recognition Differences



ITEM	USUAL Proposition	New Proposition
• Codes	• \$1-10/image	• No cost
• Cost	• R500 000 plus	• R95 319/s
• DataBase	• Local	• Web Based
• No of Data Bases	• 1	• Multiple
• System	• Access Control	• Surveillance
• Accuracy	• Crucial	• No - Human decides

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## Face Recognition Differences



- Internet utilisation to distribute the codes required;
- Binning reduces database size (sex, colour, age);
- Linking casinos together via web server to update each site (card counter / pick pocket / problem gambler loaded in CT , immediately distributed to all other members).

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