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hand...



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Purpose

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“Demonstrate to the Independent Gambling Authority (IGA) how smartcard technology might be implemented with a view to significantly reducing problem gambling.”

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What is the technology?

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- A maxetag is essentially a Mifare™ chip and antenna wrapped in a polyurethane tag
- Mifare™ is a contact-less smart chip made by Philips which communicates very quickly using Near Field Radio Frequency (RF) with a terminal and stores information. It is also commonly embedded within a card.



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What can it do?

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- It facilitates a Pre-Commitment from the player by getting them to “lock” in the amount of spend before they play
- It protects the Problem Gambler from further harm by alerting or enforcing exclusions from playing machines.

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Levels of Harm Minimisation max@tag

Level 1 – Base Harm Minimisation

Level 2 – Harm minimisation with Basic Direct Intervention

Level 3 – Cashless/Tokenisation with an Increased Level of Intervention

Level 4 – Cashless/Tokenisation with Extreme Intervention

These levels are then combined with Levels of Exclusion

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Levels of Exclusion

Level 1 – Use existing systems:

- Self-barring
- Venue based barring
- Problem gambling family protection order

Level 2 – Tag is locked for barred customers preventing use, but system can still be voluntary at this level. Could add Argus Valencia Facial Recognition as stand alone system on a voluntary basis (Photo database managed at venue level).

Level 3 – Tag is locked for barred customers preventing use and Valencia system managed centrally and connected to all major venues

Level 4 – Valencia with maxetag integration



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Level 1 maxetag Base Harm Minimisation Model

Overview

This level involves:

- The player setting a pre-committed value on the tag and logging onto and playing a machine
- When the value has decremented to zero, a warning message and audible sound plays on the sandwich board terminal, advising that the said value has been exhausted.
- It would then be up to the player to decide to play or not.
- A non-point based reward system is used as an incentive for the player to participate.



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Nature of Pre-Commitment

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- Player sets a value on their tag at:
 - The cashier booth (usually when getting coin out, but can be at any time before play)
 - A reader alongside a change machine (interface is possible)
- The value is a daily spend total (other types of values are possible, but we believe this will become complex and confusing for the player)

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Steps of play

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- Player gets a tag from cashier anonymously (or can register if desired for rewards participation)
- Once tag value is set and player has coin, they proceed to a gaming machine
- Player selects an amount to commit for that gaming terminal
- Player logs onto the maxetag terminal in the gaming machine by placing their maxetag over the sensor area. This process will read the tag value and record it in the server. We call this step Tag On and use it as a “call to action”
- The server will then check the coin in and win meters for that machine or any other machine the player utilises via the site controller and compare them to the daily spend value
- It will display the amount left to play on the LCD screen of the terminal
- Once the value has decremented to zero the server will send a message to the terminal in the gaming machine and it will display a warning message and play a warning sound

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Method of Harm Minimisation

- Upon reaching the value:
 - Warning messages and sounds play
 - The tag is no longer usable for a predetermined time (15mins – 24 hours, set by player or regulator), known as tag exclusion time

Level 1

Strengths/Weaknesses

Strengths

- Allows player to set a daily spend value
- Provides warnings to player
- Alerts Cashier when value is exhausted (allows early intervention)
- Anonymous sign-up (no impact to recreational gambler)
- Little or no privacy issues
- Spend value applies across all participating venues
- Requires no modifications to gaming machine or monitoring system

Weaknesses

- Voluntary system (requires participation to be successful (rewards system may correct this issue))
- Limited to diligent staff observations and early interventions
- Relies on player heeding warnings to work

Level 2 maxetag
Harm Minimisation with
Basic Direct Intervention

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Overview

- This level has all the features of Level 1, it also now introduces direct intervention by disabling the coin mechanism which stops further coins being inserted into the machine.

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Nature of
Pre-Commitment

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(Same as Level 1)

- Player sets a value on their tag at:
 - The cashier booth (usually when getting coin out, but can be at any time before play)
 - A reader alongside a change machine (interface is possible)
- The value is a daily spend total (other types of values are possible, but we believe this will become complex and confusing for the player)

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Steps of play

Same as Level 1, plus

- Once daily value is expended, the gaming machine coin mechanism is disabled. This will also apply to any further machines the player attempts to play with that tag until the exclusion time expires.



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Method of Harm Minimisation

Once value is exhausted:

- Warning messages and sounds play
- The gaming machine is disabled, preventing further play
- The tag is no longer usable until the tag exclusion time expires



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Level 2

Strengths/Weaknesses max@tag

Strengths

- Allows player to set a daily spend value
- Anonymous sign-up possible
- No effect on recreational gamblers as making pre-commitment is not compulsory
- Little or no privacy issues
- Provides warnings to player
- Alerts Cashier when value is exhausted (allows early intervention)
- Value applies across all participating venues (Wide Area Network compliant – information is stored on tag)
- Introduces direct intervention by disabling the gaming machine once the daily spend value is reached

Weaknesses

- Voluntary system (requires participation to be successful (rewards system may correct this issue))
- No way to verify that user of tag is owner of tag
- Requires a connection from maxetag terminal to coin mechanism in gaming machine (will require legislative changes)



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Variation of Level 2 for Increased Effectiveness

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Making the tag compulsory so that :

- Gaming machines will not operate without a tag logged on
- Every player has an opportunity for both a pre-commitment and direct intervention through the disabling of the coin comparator should a set value be reached.
- Door opens for:
 - Scope for tracking of problem gamblers through accredited welfare groups (i.e. How much, where, when, ability to lock out of certain venues and not others. Ability to flag player to venue to assist gambling rehabilitation)

This variation still allows for anonymous sign up, so privacy concerns and significant impediment to the recreational player can be avoided.



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How does Harm Minimization (Level 1 and 2) work?



The player decides
to play a machine.



Pre-commitment

The player makes a decision regarding the amount of money they are willing to spend.



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The player requests a max-e-tag from gaming staff.



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The player may choose whether to register or play anonymously.

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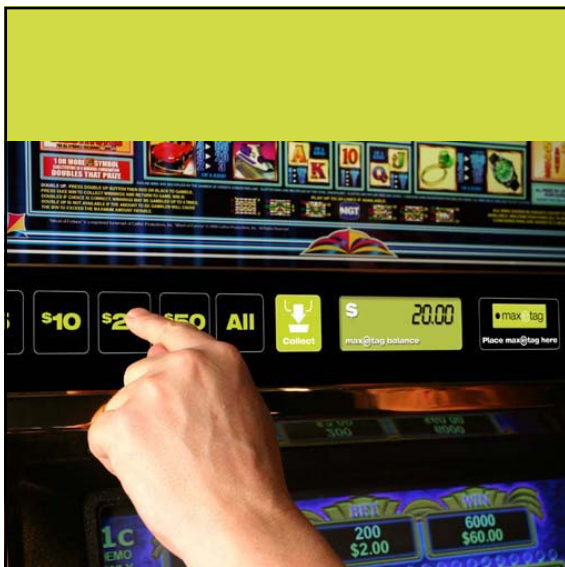


Pre-commitment

The player sets a value on their maxetag with the cashier whilst exchanging notes for coins

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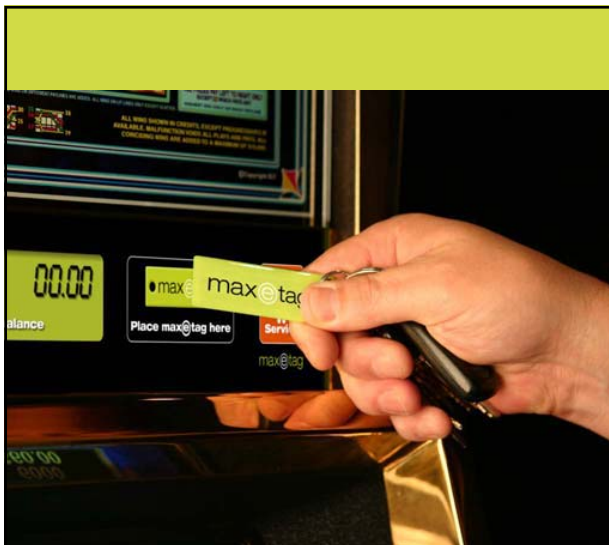
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Pre-commitment
The player selects
an amount to
commit on this
machine



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Pre-commitment
The player Tags
On by placing
their maxetag
near the sensor,
then inserts coins
and plays as
normal



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Direct intervention

Once the amount committed is expended the terminal does one or more of the following options:

- It displays a warning message on the LCD screen
- It plays warning audio to indicate value has been expended
- It pops up a message on the Cashier computer to alert the gaming manager providing a level of intervention
- It sends a message to the gaming machine to disable the coin mechanism (Level 2 only)

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Summary of key points:

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max-e-tag
requires the
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max-e-tag has
the ability to lock
expenditure levels.

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Level 3 maxetag
Cashless/Tokenisation with an
Increased Level of Intervention

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Overview

- Introduces Cashless play by:
 - Removing the coin mechanism from the machine
 - Ensuring the use of the tag to load 'credits' and therefore becoming an integral part of gaming machine play.
- The player loads an amount on the tag to play with and at this time is given the opportunity to 'press the red button' and lock expenditure values onto their tag or not.
- If the red button is pressed, no further amounts can be loaded onto the tag until the exclusion time expires.
- It also allows the enforcement of barring orders by preventing any amount being loaded onto the tag until the barring order expires.

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Nature of
Pre-Commitment

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- Player chooses to “hit the red button” when loading credits onto the tag, thereby preventing any more credit being loaded onto tag until exclusion time expires.

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Steps of play

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- Player gets a tag from cashier anonymously (or can register if desired for rewards participation)
- Player loads credits onto tag at cashier and chooses to 'hit red button' to restrict daily spend to that amount
- Player chooses an amount to increment gaming machine and logs onto the maxetag terminal by placing their maxetag over the sensor area. This process loads the selected amount of credit onto the machine
- The player keeps playing and loading until the initial spend amount is reached
- Once it is reached the tag will not allow any additional amounts to be loaded until the exclusion time has expired
- The terminal will advise the player that the daily spend has been exhausted and no further play is possible
- If player wins, they return to cashier and 'cash out' the tag

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Method of Harm Minimisation

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- Tag prevents loading of any amount beyond the amount pre-committed by 'pressing the red button' until the exclusion time has expired



Level 3

Strengths/Weaknesses max@tag

Strengths

- Eliminates coin noise from the gaming room
- No committed funds remain stored on tag after use (i.e. tokenisation)
- Simplified process for player
- Closed loophole of allowing play without tag
- Allows player to pre-commit a maximum spend level as they load the tag with credits
- Anonymous sign-up is possible
- Alerts Cashier (Allows early intervention)
- Little effect on recreational gamblers as hitting red button is not compulsory
- Little or no privacy issues
- Deliver cashless operational economies to venues
- Improves level of direct intervention by preventing any further spend
- Scope for tracking of problem gamblers through accredited welfare groups (i.e. How much, where, when, ability to lock out of certain venues and not others. Ability to flag player to venue to assist gambling rehabilitation)

Weaknesses

- Still no way to verify that user of tag is owner of tag, but less incentive to 'share' tag with other players if there are credits on it
- Requires modifications to monitoring system to allow credit meters to be incremented/decremented
- Requires legislative changes to Gaming Machines Act 53A to allow machines to be operated by something other than coins



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Level 4 maxetag

Cashless/Tokenisation with max@tag Extreme Intervention

Overview

- This Level has all the features of level 3, but does not allow anonymous sign-up.
- Requires some form of positive identification to sign up (the greater the level of identification, the greater the effectiveness of the system)
- Would require some form of biometric identification to verify the identity of the tag user to be foolproof.

Industry viability and privacy issues are a concern



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Nature of Pre-Commitment

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- Same as Level 3

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Steps of play

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- Same as level 3 except that identified registration is compulsory and the player would also have to submit to some form of biometric verification (fingerprint, iris scan, facial recognition, DNA etc) for the system to be truly foolproof

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Method of Harm Minimisation

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- Same as Level 3, but all loopholes are closed for the player as far as using someone else's tag or identity with the introduction of compulsory identification and biometrics.

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Level 4

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Strengths/Weaknesses

Strengths

- Eliminates coin noise from the gaming room
- No loopholes of allowing play without tag or using someone else's tag
- Multiple registrations will flag user
- Allows player to restrict spend as they load the tag with credits
- Tracking Problem Gamblers
- Extreme level of direct intervention by preventing any further spend and no possibility of 'dodging' the system

Weaknesses

- Greater impact on recreational and nomadic/tourist gambler with compulsory identification and inconvenience of biometric logon
- Requires time consuming sign up process
- Reduced commercial viability for licensees
- Invasive privacy concerns

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**How does
Cashless
(Level 3 and 4)
work?**

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The player decides
to play a machine.

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Pre-commitment

The player makes a decision regarding the amount of money they are willing to spend.



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The player requests a max-e-tag from gaming staff.



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The player may choose whether to register or play anonymously.
(Level 3 Only)

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Pre-commitment

They load a pre-determined cash value onto the max-e-tag at the coin booth.

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Cash can also be loaded at an automatic change machine.

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Lock expenditure

The player can limit their spending level, before playing, by locking in a maximum amount.

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Pre-commitment

The player selects the amount of funds to be transferred from the max-e-tag to the machine.

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Cashless gaming

The player touches the max-e-tag to the machine to transfer the funds and access play.

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The player
can then play
a machine.

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Direct intervention

Once the
pre-committed
funds and winnings
are exhausted
no further play
is possible with
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Cashless gaming

All winnings are transferred back to the max-e-tag.

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The player collects the cash value held on the max-e-tag from the coin cage or automatic coin machine.

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How long does it take to install?

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A standard 40 machine site would be installed in around 15 hours

- Maxetag have negotiated contracts with both gaming service agents in South Australia who have the resources to install as quickly as is required.
- A 6 month roll out or less is quite feasible

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How reliable and secure is it?

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- The advantage of a contact-less chip is that a terminal can sense it from 10-20mm away, so it does not have to be inserted like cards do. This improves long term reliability greatly as there are no moving parts in the terminal unlike card based terminals
- maxetags are designed to last many times longer than smartcards. They are also much more impervious to water damage from spilt drinks and humidity than smartcards as they are encased in a polyurethane cover
- The system uses a combination of 3DES (Bank standard) encryption PLUS dynamic key management. This adds another layer of protection with all transactions having a time and date stamp based key which is verified to check that the contents of the tag haven't been changed.

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Advantages of max e tag system:

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Improved reliability:	No moving parts like smartcard and other card swipe systems
Resilient:	Flexible, waterproof – virtually unbreakable
Flexible:	Ability to interface to a number of monitoring system protocols including all of the ones currently in use in Australia and New Zealand
Faster:	Up to 10 times faster than conventional smartcards (150 milliseconds)
Large Install Network:	We have contracted Bytecraft and Jupiters to handle all of our installations, training, support and service via their existing network of hotel and club clients
Reduced loss rate:	Attaches to key ring – less likely to be left in reader, etc.
Hassle Free Wide Area Rewards Networking:	Venue specific rewards system is possible. i.e. only rewards issued at a certain venue can be redeemed at that venue.

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How do the costs compare to other systems?

- System costs are very competitive, with maxetag gaming machine terminals retailing at well under \$1500. This price could be further reduced by ordering in greater quantities
- Monitoring fee includes phone and software support, broadband internet, access to internet reports and management of centralised database
- Greatly reduced card loss as maxetag is attached to the person's key ring
- Tags are competitive with smart card prices and could be further reduced with naming rights sponsorship on one side

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Level

All

Features above previous level

Limitations

Level 1 – Base Harm Minimisation

Level 2 – Harm minimisation with Basic Direct Intervention

Level 3 – Cashless/Tokenisation with an Increased Level of Intervention

Level 4 – Cashless/Tokenisation with Extreme Intervention

- Allows player to set a daily spend value
- Provides warnings to player
- Alerts Cashier when value is exhausted
- Anonymous sign-up (except level 4)
- Little or no effect on recreational gamblers (except level 4)
- Value applies across all participating venues (Wide Area Network compliant – information is stored on tag)

- Requires no modifications to gaming machine or monitoring system

- Introduces direct intervention with ability to disable coin mechanism

- No coin noise
- Must use tag to play
- Pre-commit to spend before play
- Cashless operational economies for venues
- Improves level of direct intervention by preventing any further spend (adds teeth to the tiger)
- Problem Gambler tracking via welfare agencies

- Tag identified to individual player
- Extreme level of direct intervention by preventing any further spend and no possibility of 'dodging' the system

- No way to verify that user of tag is owner of tag (except Level 4)

- Voluntary system (Except level 3 and 4)

- Intervention limited to staff actions
- Relies on player heeding warnings to work

- Requires a connection from maxetag terminal to mechanism in gaming machine

- Requires modifications to monitoring system to allow credit meters to be incremented/decremented
- Requires legislative changes to Gaming Machines Act 53A to allow machines to be operated by something other than coins

- No anonymity largely impacts on recreational gambler
- Requires time consuming sign up process
- Reduced commercial viability for licensees
- Large impact on recreational gamblers



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Options

Push Interactive Advertising



Ticket Spitter



Argus Valencia Facial Recognition

Uses "Face in Crowd" technology developed by CSIRO



Kiosk



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Key Benefits for Stakeholders

Regulator:

- Effective harm minimisation control
- Pre-commitment gaming culture
- Direct intervention
- Integrated exclusion management
- Voluntary stop-in-play till next day
- Accurate reporting usage statistics
- Secure data & communication

Venue Management:

- Pro active approach to harm minimisation
- Efficient
- Less cash handling
- Automated payouts – direct transfer of credits from machine to tag
- Convenient – player can self-serve payouts and cash exchange
- Centralised monitoring with ACM
- Integrated machine analysis
- Rewards system automates trade promotions

Customer:

- Simple to use and understand
- Offers several self control checks
- Creates a sense of decision and being in control
- Respects the customers rights
- Discrete
- Convenient self-service
- Reduces waiting times on payouts, etc.
- Rewards system automates trade promotions
- Membership options
- Introduces a safety net to recreational gambling

Welfare:

- Ability to track, monitor, assess and assist gambling rehabilitation using Wide Area Networking

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Better

Simpler

More effective

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