



# Ten Years of Innovation: Marketing and Game Technology During the First Decade of G2E

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**W**hen the first Global Gaming Expo (G2E) debuted in 2001, there was a hope and expectation that the trade show and conference would break new ground in the technology and marketing areas. After all, with the slogan “by the industry, for the industry,” G2E promised to bring together the top technology providers along with the experts who would teach attendees—the operators of casinos around the world—how to utilize that technology for greater operational and marketing efficiencies.

Indeed, 10 years later, few would recognize the industry because of the changes that have occurred on the casino floor and throughout the gaming property. These changes—and the growth they have spurred—have been fueled by groundbreaking developments in two key areas: game technology and marketing.

G2E has long been a showcase for the major advancements in these fields, and this paper highlights their evolution. It outlines the advances in game technology that have occurred in gaming during the past 10 years and how technology has assisted marketing in identifying new players, better servicing existing players and allowing casinos to concentrate on what they do best: serving the customers.

## **THE EVOLUTION OF MARKETING: A NEW FRONTIER**

### **Marketing Matters**

Even 10 years ago, a debate raged about how casinos could best attract—and retain—customers. The old-timers insisted that the methods they had developed in the early days of casino gaming were still the best: allow casino hosts to identify players, to get to know them, to reward them for their play and to follow up with them once they left to assure that they would return again and again.

That approach worked fine when the pool of casino players was relatively finite and little outreach was done by the individual casinos to identify and capture new players. But once mass marketing began to kick in during the 1980s and '90s, it quickly became apparent that there needed to be an alternative way to service the increasing number of players who were arriving at the casinos' doorsteps.

The big breakthrough in the past 10 years has been the introduction of CRM—customer relationship management. This business strategy was in use for several years before being discovered by the gaming industry. Initially, it was used by companies selling products to identify customers and streamline the sales process by providing those customers with the products they desired. The same concept was used for gaming customers, but the process was refined to gain knowledge of personal preferences, gambling patterns and aid in the coordination of casino special events.

CRM is, however, more than a simple marketing campaign. It is a company-wide strategy that involves all employees and executives, and requires a “buy-in” at all levels. The three elements of CRM—people, process and technology—are designed to create an image of a casino that is delivered the moment the customer arrives at a property and continues until he returns home. And now, with the use of social networking technology, that image is reinforced long after the customer leaves the casino.

The CRM method requires a deep database with as much information as the casino can obtain from the customer. This provides executives with a complete profile of players that allows them to target their top players at special times of the year, and to offer unique promotions and/or a personal appeal that uses the depth of knowledge.

Database builders and analytics have thus become crucial elements of marketing in the 2000s, with social networking tools—Facebook, Twitter, MySpace and others—bringing a wealth of information to the casino’s database.

Direct mail—that touchstone of the 1990s—has lost some of its glitter in the face of immediate contact with players and customers via email, instant messaging, SMS and other social networking tools that bring the gaming experience to the player on a daily basis. Players can now receive coupons, special offers and even personal information on their mobile phones or computers at any time of the day or night, keeping the casino front of mind.

## Smiles for Tiers

While the concept of a players club for slot players goes back 20 years or more, the idea of a “tiered” players club that allows casinos to recognize exceptional customers with more attention and more “goodies” is relatively new. This allows casinos to include everyone who wants to join but to separate the more valuable players from the average players while at the same time offering incentives for players to move up to the higher tiers.

Most casinos have settled on a three-tier system, with an entry-level tier for all players, a secondary level for those who play above the norm, and finally a top tier that gets the attention and the rewards deserving of the best players. While the criteria for each level may vary from casino to casino, the strategy remains similar.

<b>The U.S. Gaming Industry: 2001 vs. 2009</b>		
	<b>2001</b>	<b>2009</b>
States with legalized casinos	30	37
States with legalized commercial casinos	11	13
States with legalized racinos	5	12
States with legalized Indian casinos	23	29
Number of commercial casinos	434	458
Number of racinos	16	44
Number of Indian gaming operations	329	456
Commercial casino gross gaming revenue	\$25.7 bil	\$30.74 bil
Racino gross gaming revenue	\$2.1 bil	\$6.4 bil
Tribal casino gross gaming revenue	\$12.8 bil	\$26.5 bil
Gaming tax contributions from commercial casinos	\$3.6 bil	\$5.59 bil
Gaming tax contributions from racinos	\$577.9 mil	\$2.63 bil
Commercial casino employees	364,804	328,377
Racino employees	7,928	29,025
Commercial casino employee wages	\$11.5 bil	\$13.1 bil
Number of slot machines	590,000*	832,988
Casino visitors	52.3 mil	61.7 mil

Sources: American Gaming Association, National Indian Gaming Association

\*Estimated



And the collection of information from these players—their favorite games, restaurants, room types, sports events, holidays and more—allows the casino to customize its offerings so the players do not get inundated with offers, but receive only the ones that they would most likely respond to.

This increased knowledge of the players, their likes/dislikes and their response to specific rewards has actually saved casinos money. During the past decade, the cash-back reward has been significantly reduced as casinos better

understand how and when to reward their players. Casinos have come to realize that when you can provide your players with items and comps they actually want, then cash back is not quite as important.

This in turn allows casinos to better allocate resources when rewarding players. A high-end event that executives know will appeal to their best players can be a reward that isn't necessarily tied to the comps, but will guarantee that the players will visit for a long weekend or holiday. While during the 1990s, players gauged their value to a casino by the amount of cash returned, today they are more sophisticated and have learned that cash isn't the only measure of a casino's regard for them.

Many casinos have changed from a single-tiered platform to multiple tiers over the past 10 years as it has become apparent that there is more value to the multi-tier approach. But in that transition, a casino must evaluate its image, goals and process.

It's important to be honest about your market—the depth, penetration and potential. A players club is all about rewarding players for their loyalty and incentivizing them to return more often and play more money. Other factors include the time your market has been exposed to gaming and the level of sophistication among the players. Is technology widely accepted or do your players still pull the handle and expect coins to fall out? The demographics of the players also have to be considered. Are they locals or tourists? Seniors or baby boomers? Frequent visitors or people who take once- or twice-a-year excursions?

While most modern slots and slot systems will work with a tiered program, some of the older models have a more difficult time with the interface. The newest products, of course, have all the bells and whistles that can accommodate such a system, but casino operators must evaluate whether it's worth the time and expense to upgrade.

The current state-of-the-art systems allow operators to create tiers accessible to players, but also to create many more tiers for the casino operator's use that break down players into categories and sub-tiers, allowing operators to choose the kinds and methods of rewards offered to each category.

## G2E in 2001

- Video slot machines dominate inaugural show floor
- Machines feature interactive, touch-screen LCD video monitors to enhance bonus round
- Move to coinless play a hot topic in conference, on show floor
- Player-tracking systems mature
- Full-service casino management systems make a splash

### NEW PRODUCTS

- Atronic America's Sphinx II
- Bally Gaming and System's Ray Charles America the Beautiful
- Aristocrat Technologies' Oasis casino management system
- The CyberLock from Videx

## Tracking the Invisible Customer

Ten years ago, casino operators used things like restaurants, rooms, spas and entertainment as amenities that would drive the customer to the casino floor, where the “house edge” would kick in and the casinos would make their money. Yes, there was a small revenue stream coming out of the non-gaming amenities, but it was barely enough to get noticed, particularly when stacked up against the huge gross gaming revenues.

But then came the celebrity chefs, the “must-see” long-running Las Vegas shows, the super spas and finally, the nightclubs where bottle service became a huge profit center for casino resorts. Today, non-gaming amenities have become, at least on the Las Vegas Strip, as much of a revenue stream as the casino. And in casinos around the world, non-gaming revenue has become an important player and the one place where casino operators have a good chance to grow their bottom line.

On the Strip today, some casino resorts earn more from the non-gaming side of the business than from the casino. No longer is betting a requirement for a Strip casino to earn money from visitors. While the gambler is still king, casinos have begun to recognize customers who don't gamble but enjoy the other amenities, thereby contributing to the resort's revenue stream. Just recently, however, have casino resorts developed methods to track those customers who aren't players by issuing them players club cards that are recognized in all the non-gaming areas of the hotel. From rooms to restaurants, spas to pools, customers can now get the same kind of credit for buying products and services that gamblers do for playing slots or tables.

Ancillary no more, non-gaming activity also is now tracked by the American Gaming Association's *State of the States* survey every year. In the 2010 version of the study, a full three-quarters of respondents said they ate in a fine dining restaurant while at a casino facility and 60 percent said they saw a show or other entertainment.

Another new “cash register” has begun to emerge in recent years: the retail experience. From the massive shopping malls on the Las Vegas Strip to individual retail shops at regional or Indian casinos, the gaming customer has shown a proclivity for shopping. Some casino operators have leased out the shops, while others have become shopkeepers. The difference is a matter of style, but for some companies, the shopping mall has been a bonanza. Las Vegas Sands made billions when it sold its Grand Canal Shoppes and later the Shops at Palazzo to a retail company in the mid-2000s.

Today, the tracking of non-gaming customers is in its infancy but has become an increasingly important part of the business. Since the inception of the ultra-lounge in the early 2000s, customers came and went while properties had no real understanding of who they were. Today, casinos like the Borgata in Atlantic City and the MGM Resorts International properties in Las Vegas actually present those customers with dedicated “players” cards to determine their exact value, spending habits and preferences.

One of the major hurdles, however, in identifying these customers is the inability of older tracking systems to interface with the non-gaming amenities—restaurants, spas, shops and sometimes even the hotel. While the newer systems all have those capabilities, substantial investment often is needed at casinos that have not yet upgraded their system.

### G2E in 2002

- Ticket-in, Ticket-out (TITO) makes a big splash
- First discussion of intellectual property in gaming industry
- Internet gambling makes first appearance at industry trade show
- Racinos debut as topic at G2E conference
- CRM concept first considered for casinos

#### NEW PRODUCTS

- Venture Catalyst Inc.'s Mariposa™ integrated CRM and marketing system
- Wheel of Fortune™ Special Edition progressive from IGT
- JCM's Intelligent Cash Box
- New cashless gaming printers from Seiko Instruments, USA Inc.
- WMS Gaming's “3RV” line of slot machines



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Harrah's Entertainment has upgraded its industry-standard Total Rewards program to capture the data on non-gaming spend. The program is designed to present a more holistic understanding of a customer, whether that customer is a gambler, a non-gambler or a combination of both. The company plans to use the data compiled to better reward its customers with items and services that actually are valued.

Casinos today want to recognize the customer at every “touch point” to develop a continuing relationship with that customer. By creating these systems, casinos can attract new customers by capturing their data and understanding their needs and desires. The payoff is more frequent visits, a larger share of trip budgets and keeping the customer at the property for non-gaming activities.

Calculating the potential of a customer is always crucial to any business, and the same applies to a casino. By understanding a customer's needs and desires, a casino can dedicate the appropriate elements to make sure each customer is recognized, comfortable and welcomed. Still to be determined is the right mix of gaming and non-gaming customers, the exact cost of attracting and retaining those customers and how that cost will percolate to the bottom line.

## Host With the Most

Slot players are often reclusive players. When playing a slot machine, a player is sometimes difficult to reach with employee interaction. They enjoy the solitude and focus involved—as long as the machine performs to their expectations.

So how do casinos give these players the recognition they also crave? The answer came in the early 2000s when several companies debuted separate monitors or “windows” on the actual slot monitor that could communicate with the player. While every manufacturer has a different name for them, these devices have been a huge success for both the casinos and the players.

Among the things that this “host in a box” can do are to make restaurant reservations for the player, allow the player to request that the valet deliver his car, alert the player when a show is about to start, make offers that the player may not be aware of, reward the player with a special reward because of their action that day and much more. The device has been used during tournaments to give players up-to-the-minute data on the points the leaders have accumulated. Groups can keep track of their members via the device.

This is just an extension of the “instant service” now expected in casinos. Today, kiosks are available to all players, who can “comp” themselves by inserting their player club card and redeeming their points for food and beverage, show tickets, cashback and more.

For the casinos, these service portals allow them to reduce the employees dedicated to servicing customers. While there are elderly customers who may never become comfortable with the technology, the option is often easier for players to use than it would be to wait for personal service that could take long periods to arrive, thereby reducing playing time and creating frustration. Savvy casinos have not reduced personnel but have become more strategic about how they allocate customer service resources on the floor.

## Marketing Savvy Beyond Las Vegas

The marketing that works in Las Vegas usually doesn't work anywhere else in the world. As a unique destination, Las Vegas has an appeal all its own that rarely applies to other gaming jurisdictions. Atlantic City, on the other hand, developed many marketing schemes that continue to succeed today, especially for locals and day-trip markets.

Bus marketing was perfected in Atlantic City. With 50 million people living within a couple of hours of Atlantic City, the city flourished before gaming expansion. The city's casinos ran bus routes from most of the major cities in the northeastern United States, with eager gamblers flocking to the Boardwalk casinos. But as competition heated up, casinos began to offer free coins to bus customers to entice them to their casinos rather than a competitor.

Today, Atlantic City's competitors—casinos in Delaware, Pennsylvania, New York and Connecticut—are using bus marketing to bring customers to their properties. Methods perfected in Atlantic City—targeting specific zip codes and even neighborhoods, limiting the up-front coins to bounce-back coupons (coupons that can only be redeemed on a subsequent visit) and more—are being utilized by these casinos while Atlantic City bus depots now remain largely vacant.

But Atlantic City learned long ago that customers who drive to the casino are more valuable than bus customers, who are lured to the property by free coins and buffets. Drive-in customers stay longer, are more likely to play higher limits, and can frequently be overnight or weekend visitors, making them even more lucrative for the casino.



## The Digital Marketing Revolution

Direct mail is a tried-and-true method to attract players to the casino. Special offers designed for specific groups, regions or demographics, direct mail can be one of the most effective tools for casinos. Arriving in the mailbox with enticing graphics and offers, the method has been successful for years in bringing in good players. Today, there is a real formula for response to direct mail so a casino operator can effectively predict what kind of draw an event or promotion will generate.

But less than two years ago, a new phenomenon changed the way casinos think about marketing: social networking.

Social networking involves online content created by people who have access to the web 24/7 and brings opportunities to the casino industry only imagined in the past. Websites like Facebook, Twitter and YouTube give casinos an opportunity to become part of the lives of their customers, creating daily contacts that constantly remind them of the experience offered by gaming.

The exciting thing about social networking is that the most important demographic for casinos—the 35- to-49-year-olds—is the fastest-growing segment on Facebook, according to the Neilson Company. But what does this mean for the casino business? In reality, consumers now have as strong a marketing voice as the casinos. Their “tweets” can often have as much impact as the casino's tweet, if not more.

With the advent of social networking, there have never been so many direct channels for casinos to communicate with their customers. Loyalty programs bring a new dimension when combined with the instant contact afforded by the social networking functions. Casinos now have the ability to expand on the relationships they have with their existing and prospective customers.

And when you add the short message service (SMS) functions of the current “smart phones,” the sky is the limit. Already, casinos can push coupons to customers who can arrive at the casino that day or in a given time period to redeem them, bringing the customer directly to the gaming floor. Whether offering free food or inexpensive rooms or discount show tickets, casinos can craft their marketing plans day by day instead of month by month.

While the method used is important and the content of the message posted is significant, digital marketing is all part of the general internet noise unless it goes “viral” and is spread by hundreds, thousands or even millions of people via email, shared sites or other means, informing their friends about a casino’s products or services. This is difficult to accomplish, but it’s pure gold when it occurs. What other marketing medium allows casinos to score points with their customers or potential customers even *before* they arrive?

But like all new technologies, casinos are uncertain about how to use social networking and even more unclear about how it drives business to the property. What is not in doubt, however, is that all gaming businesses today need a social networking strategy, need to understand its implications and must be prepared to respond at a moment’s notice to changes in the technology.

## Marketing in Asia: VIPs and More

Maybe the single biggest change in the gaming industry in the past 10 years has been the opening of the Chinese market via the Macau casinos. When the Chinese government decided to bid out gaming concessions in Macau, no one realized how lucrative it would be. But when Las Vegas Sands built and paid for its Sands Macao in less than one year, the gold rush was on.

New players in the Macau market adopted the same marketing system that had been used by long-time monopoly-holder Stanley Ho. In Macau, more than 70 percent of the business comes from VIP operators—junket reps who bring groups from China and elsewhere and are rewarded with a percentage of the players’ buy-in (a commission) rather than a percentage of the losses, which is traditional in all other casino venues. The crucial importance of the VIP operators

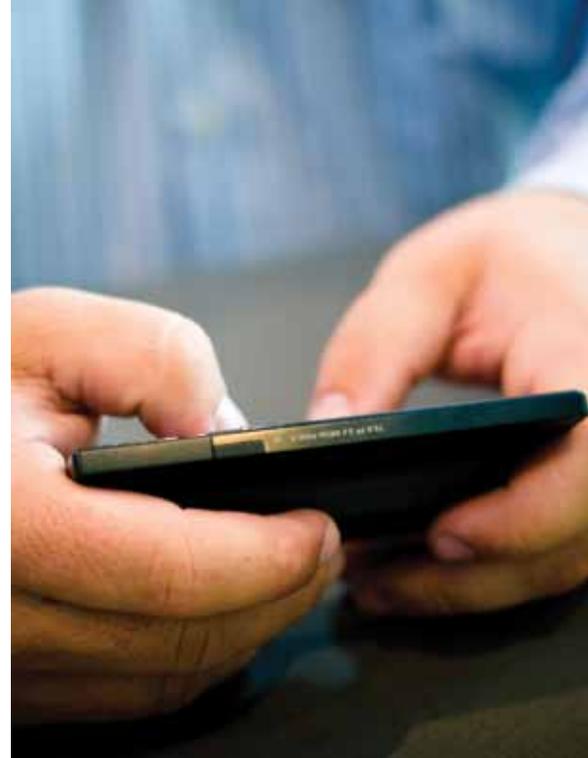


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### G2E in 2003

- Digital cameras and recorders transform surveillance departments
- The impact of smoking bans on casinos is analyzed for the first time, leading to the introduction of new ventilation technologies
- The Gaming Standards Association introduces slot protocols
- “Downloadable” games first mentioned at G2E
- Animation and sound revealed as the new horizon in slot machines

#### NEW PRODUCTS

- Bosch Security Systems’ DiBos digital recorder and Hi-Q archiving system
- Shuffle Master’s Four Card and Crazy 4 Poker games
- Aristocrat Technologies, Inc.’s Millionis\$er progressive penny slot
- WMS Gaming’s CPU-NXT operating system and Bluebird gaming cabinet
- CI-3 slot machine lighting system by CI Innovations, Inc.

is reflected in their treatment by the casinos. Some of the newer casinos actually allowed junket operators to design their own private gambling rooms within the casinos.

In Macau, VIP players are given “dead chips” for their buy-in, which are tokens that can only be played at specific games and cannot be redeemed for cash.

The dead chips are taken on a loss or paid with “live chips”—chips that are redeemable for cash and accepted throughout the casino—on a win. The complicated system requires eagle-eyed casino personnel to make sure that these live chips are not passed off and redeemed without the casino’s knowledge, thereby skewing the results from a specific group of VIPs.

This specific system is unique to Macau. The two casinos in Singapore do not use it because the Singaporean regulators have insisted that any junket operator be fully licensed. Macau VIP operators are unlikely to receive licensing, and few have even applied. But practices in Macau have had an impact on other casinos around the world, particularly in Australia and the United States. Some casinos have instituted “dead chips”—also called “rolling chips”—procedures, but without the up-front commission payment to the junket operators.

The biggest impact, however, is the sharing of the VIPs between the Macau properties and the Las Vegas/Australian properties of the Macau operators. In Las Vegas, the “win” (gross gaming revenues) obtained from baccarat tables on the Strip actually increased in 2009 while all other categories of gaming revenue decreased substantially. But all of the baccarat increase, say experts, was concentrated at the casinos of MGM Resorts, Las Vegas Sands and Wynn Resorts, the three American operators with casinos in Macau.



In Macau, meanwhile, the effort to grow the “mass market”—players not brought to town by the VIP operators—has been slow to succeed, even though most of the casinos on the Cotai Strip were built to appeal to that segment. The Macau government also is seeking to expand the mass market by encouraging casinos to add non-gaming amenities and limiting the growth of casino tables over the next several years.

Overall, the growth of gaming in Macau will impact the industry around the world, and its success in attracting the mass market will go a long way to determining its long-term success.

The success of the VIP system in Macau is spreading across Asia. Although Singapore has instituted another, more regulated, system, the Macau VIP operators have opened opportunities for their services in the Philippines, Cambodia, Vietnam and South Korea. As gaming expands to other countries—possibly Taiwan, Japan, Thailand and elsewhere—governments will need to decide which system will be most advantageous to their specific situations or even if a new hybrid will be developed.

## **THE TECH AGE: A DECADE OF EVOLUTION ON THE GAMING FLOOR**

The anticipation of new developments in gaming technology are what keep exhibitors and buyers returning to G2E year after year. And at first blush, 10 years of technological advance wouldn’t be expected to completely change an industry. The commercial casino industry, after all, is more than 75 years old, and for the vast majority of that time, the industry’s prevalent technology remained essentially the same.

Many will argue that this all changed in the early 1980s with the introduction of the first digital slot machines, and they would be correct. The “virtual reel” system of choosing results on a slot machine enabled large jackpots and catapulted slot machines to the forefront of the casino. It was the completion of an evolution of the slot machine that began in 1964 with the first Bally electro-mechanical slot machines and continued through the 1970s with the introduction of dollar slots, video poker and four-reel games.

The technological changes of the late 20<sup>th</sup> century set the stage for what was to come in the commercial casino industry, to be sure, but it can also be argued that the first 10 years of the 21<sup>st</sup> century have changed the game once again, laying the foundation for what could, in a comparatively short period, completely change the way a casino looks, the way games are played, and the way the public views the gaming industry.

Beginning in 2000, several new technologies merged to set the stage for what is to come in casinos over the coming decades. Ticket-in/ticket-out slots enabled games to be played with lower denominations. The lower denominations necessitated an alternative to the old coin-redemption system. The redemption kiosks that appeared led to new marketing

<b>G2E in 2004</b>	
<ul style="list-style-type: none"> <li>• Class II gaming and its impact on Indian Country is a major focus at G2E</li> <li>• G2E explores the impact of Macau’s new casinos on the gaming industry</li> <li>• Show highlights multi-denomination slot machines and their advantages</li> <li>• F&amp;B at G2E debuts</li> <li>• The poker boom goes under the microscope with sessions featuring players, operators</li> </ul>	<p><b>NEW PRODUCTS</b></p> <ul style="list-style-type: none"> <li>• Bally’s iView</li> <li>• Slim Line Cabinet by Cole Industries</li> <li>• State-of-the-art touch screens by Elo Touch and 3M Touch</li> <li>• Konami introduces first casino management system, Forcise</li> <li>• Table Safe by JCM Global</li> </ul>



paradigms, not to mention new ways of making cash available to casino customers.

A parallel advance has occurred in technology related to the online systems that track play and provide casinos with accounting information. The systems that first appeared in the mid 1980s evolved from pure accounting tools into sources of valuable information on player habits and player preferences—so loyal players could be rewarded with free meals at their favorite restaurant, for example. Information showing how much and how often a customer played at a casino could now be translated into a guide for the casino’s marketing team: Who should get the most “freebies?” Who will be invited to exclusive events? Who gets the free suite?

That marketing information was initially used strictly to reward, and thus retain, loyal players. However, as with those original slot accounting systems, this functionality evolved, with the creation of separate software modules to mine various categories of data and transform the information into customer relationship management programs that tailor marketing and promotion efforts to fit the needs of each player in the casino.

Finally, the evolution in the technology of the games themselves that began with the 1980s computerization of the slot machine has evolved several times. It began with the creation and refinement of the slot bonus event, followed by the advent of sophisticated video graphics and artwork and was capped off with the introduction of a variety of new ways to play the games. In the pit, a parade of new specialty table games has been aided by electronic progressive side bets and the same computer technology that has led to perks for slot players.

The culmination of all this new technology is only now becoming evident, as the embryonic versions of the server-based, networked gaming floor begin to appear. CityCenter offered the first fully networked gaming floor, but the networked gaming concept is beginning to spread as casinos across the nation dabble in various scales of networked gaming.

Where we go from here will be limited only by the imagination of those creating new gaming technology. And, as we have already seen, that imagination is limitless.

Below is a more detailed view of how the industry got here, what new technology has done and is doing for gaming, and what the future may hold for the casino industry’s hi-tech gaming floor.

## The Big Ticket

It was a change that few saw coming. It was a change that many thought players would never accept. Yet, it was a technological development that ultimately would change everything for casinos.

As the turn of the 21<sup>st</sup> century approached, the idea of removing coins from the equation of slot machine play was not a new one. Video lottery terminals in small vendor locations around the country had done it for years. An Indian casino in Verona, New York, the Turning Stone, had a completely cashless slot floor in place since the mid-1990s.

Even in Las Vegas, the idea had been tried—in the early 1990s, the MGM Grand experimented with slot machines that accepted bills and paid out with tickets that could be redeemed at the cage.

The Vegas coin-free experiment was a total flop. The reason it flopped related to the nature of slot machines in the early 1990s. At that time, most average slot floors were populated with traditional reel-spinners consisting of three reels and a single payline. The slot-playing culture that had grown after big jackpots made the machines popular was built around the coin. That culture involved buying rolls of quarters or dollar tokens, cracking them into the hopper tray or coin bucket, feeding them into the slot and pulling the handle.



This *was* slot play in the early 1990s. Industry jargon to this day proves it—the industry still measures slot wagers by “coin-in” and jackpots by “coin-out.” Even in the late 1990s, when bill acceptors and credit play were already standard features of slot machines, uniformed employees were still pushing those old change carts around the casino floor, ready to transform players’ soft money into hard coin.

Traditional slot players *loved* the coins. They loved dipping into that hopper tray, getting their hands dirty and lugging their buckets of hard money to the coin-redemption booth. The sound of coins clanging into hopper trays was as much a part of the casino experience as the excited shouts of players on a good roll at the craps table.

This is why the original MGM coin-free experiment failed, and it was why, when IGT’s “EZ-Pay” system—allowing payment in tickets that could either be redeemed or placed in another slot machine—was first proposed on a wide scale as the century ended, there was no shortage of skeptics as to whether or not it would take hold.

Casinos wanted the tickets for obvious reasons—they were able to eliminate significant costs related to coin-handling, including coin redemption, the hard count (thousands of coins had to be processed through counting and sorting machines), jackpot fills (attendants filling hoppers in machines when coins ran out), fixing coin jams, and hand pays (jackpots paid by attendants—when they got to it). Whether or not the players would accept tickets instead of coins was another story entirely.

“Players will never give up their coins,” some experts said.

“It’s only for the convenience of the casino—players will see right through it,” others said.

The skepticism was so thick that in 2000, when the Suncoast casino in the northwest suburbs of Las Vegas prepared to unveil the first slot floor equipped exclusively with ticket-in/ticket out (a phrase that came with its own ready-made acronym, TITO), coin-free slot machines, the property’s vice president of slot operations made sure there was a backup plan. The casino was ready, at the drop of a hat, to disable every TITO system on the floor and return immediately to exclusive coin play just in case players stayed away in droves.

As we now know, players warmed up to the idea quickly and soon loved the ticket payouts. Players could leave their slot machine to go to the restroom without waiting for a cash-out, their hands stayed clean, and it was easier to manage their bankroll with tickets, which enabled winnings to be placed in a wallet immediately.

## G2E in 2005

- Server-based gaming takes center stage
- “Visual analysis tools” give casinos a new look into customers, operations
- Sessions focus on how to build and use the data warehouse
- Ergonomic cabinets and how they increase playing time are hot topics on the show floor
- Participation games debut, allowing customers to share the pie

### NEW PRODUCTS

- Ameranth Wireless and its Poker Room Manager
- FutureLogic’s GEN2 Ticket Printer
- The Casino Commander Game Management System by Multimedia Games
- RFID chips and readers from Gaming Partners International
- Ultimate Texas Hold ‘Em introduced by Shuffle Master

But the larger reason players embraced TITO the second time around had to do with how slot machines had changed during the 1990s. Around the middle of the decade, Aristocrat Leisure Industries, the legendary Australian slot manufacturer, had introduced a new style of slot machine to Native American casinos in the United States—the multi-line video slot. Instead of three reels and a single payline (the straight line on which symbols must land to create a jackpot), the video games offered five paylines, nine paylines or even more, all on a five-reel grid.



The new games offered low volatility—a steady stream of lower-level payouts that kept players at their machines longer. U.S. casinos originally offered them in 25-cent, five-line formats, but it soon became obvious that the play style was made for lower denominations and more paylines, which kept players at the games longer and made them feel they got more play for their money. The nickel slot machine—formerly relegated to single-line, low-payout games populating a casino’s remote corners—reappeared in a big way, in a format that made the denomination work well for casinos and players.

By the late 1990s, WMS Gaming had entered the multi-line business in Las Vegas with “Reel ‘Em In,” and IGT, Bally and other slot manufacturers had met the competition with their own lines of multi-line, multi-coin nickel games. At the turn of the 21<sup>st</sup> century, the hottest slots in the business were nickel, multi-line video games with famous themes and fun, animated bonus events.

But there was one problem with the genre—the cash-out. Credit meters that had risen into the hundreds of dollars almost always required a hopper fill to cash out, inconveniencing patrons and taxing the casino’s slot service staff. Thousands of nickels had to be lugged to coin redemption, further taxing the entire system.

When TITO appeared, it instantly solved all the problems with the popular nickel slots, which is why the idea met widespread acceptance the second time around. But the coin-free slot system did much more than reduce coin-handling and increase customer convenience: it spawned a new style of slot machine that remains among the most popular to this day.

## Pennies from Heaven

One of the things that made nickel slots work was the format of multiple paylines—the more lines, the more ways there were for players to win. Now that payouts were in tickets, the slot manufacturers took things to another level, introducing games with even lower denominations and up to 40, 50 or even 100 paylines.

At the same time, many players began to miss the volatility of the traditional single-line game programs. Occasional large jackpots were a staple of the classic three-reel game, but with multiple paylines, those games became less than cost-effective, and the lower, “dribble-pay” jackpots became the norm.

### G2E in 2006

- New machines combine cashless gaming and bonusing
- Show highlights breakthroughs in table game technology
- Interfacing people with systems is goal of many new products
- “Same Suit” lunches bring together various disciplines in the industry
- RFID technology and its gaming applications is hot topic

#### NEW PRODUCTS

- GSA introduces “Plug & Play”
- IGT debuts Table iD System
- PortalVision from Las Vegas Gaming
- PokerPro electronic poker table from PokerTek
- Kiosk promotions from SCA Gaming



Enter the penny slot machine. These machines offered up to 100 paylines, maximum bets as high as 1,000 credits and lots of volatility. Jackpots in the hundreds of thousands, even a *million credits*, became viable for the casino through penny slot machines. And casinos were able to hold much more of the wagers—holding onto 12 percent or more of the money wagered on a game became commonplace—and the big jackpots meant players still loved the games.

The popularity of penny slots led to some intriguing new variations of slot technology, not the least of which was the return of the classic reel-spinner, albeit in a revised format. All of the major slot manufacturers began releasing games in mechanical reel-spinning formats with five reels and multiple paylines. A new type of hybrid game was thus created: the traditional mechanics of the spinning reel were combined with the most effective features of video slots, such as multiple paylines and free-spin bonus events. At the same time, LCD video screens were added into the mix to allow video-style bonus events in a classic reel-spinner.

Manufacturers like IGT and Bally also re-released some of their most legendary titles in the five-reel, multi-line format. Casinos began new merchandising efforts of the penny slots, with themed game areas carrying names like “Penny Lane” and “Pennies from Heaven.” The penny slot remains a game style that is both wildly popular with players and extremely profitable for casinos.

## The Kiosk Cometh

This widespread popularity of the penny denomination, and the acceptance of TITO by casinos and players alike, meant slot games were now designed to be coin-free. Most new games even dispensed with the coin hopper and famously noisy hopper tray. The sounds of clanging coins disappeared, replaced with electronic jackpot sounds that seemed silly at first, but eventually became the accepted backdrop of the casino floor.

Some games now even leave out the venerable slot handle that identified slots for ages as “one-armed bandits.” The handle, once a necessary appendage to load the springs that sent the reels spinning on mechanical slot machines, is now basically a piece of nostalgia, included for atmosphere but performing the same function that a player performs when hitting the “spin” button. Even the spin buttons have changed, offering players only wagering options that activate all paylines, and thus activating all winning combinations to ensure players receive the intended experience of each game.

But the technological advances that have grown from the origin of tickets and the penny slot go beyond the nature of the games themselves. The nature of the casino experience changed fundamentally when players and casinos no longer needed to deal with the restrictions of hard currency.

Perhaps the greatest changes have come with the way players get their cash to play the games and the way they retrieve their winnings when play is done.

The kiosk has become the center of it all.

Not long after TITO slots became the industry standard, ticket redemption kiosks appeared. After all, part of the advantage of tickets was lost when players initially had to stand in line at the casino cages and redemption booths—the only difference being that they were redeeming tickets instead of buckets of coins.

Kiosks enabled players to stay at their slots as long as they wished, right up until dinner, bedtime or the time their buses came—without having to worry about standing in a redemption line to cash out. Indeed, they could even wait until their next trip to redeem those tickets. For casinos, less time spent in line meant more time players had to be at their machines and more earnings for the house.

As the cash-out kiosks multiplied, so did their functionality. Before long, the ATMs and cash-out kiosks were no longer two different units. Today, it is typical to find one kiosk where players can go for a credit-card cash advance or a debit from a bank account before play and to redeem cash-out tickets after play. Add in the bill-breaking function—players can break any bill into smaller denominations, from \$100 bills down to \$5 bills—and you have a one-stop unit for all player cash needs on the casino floor.

The kiosks have changed the nature of the casino cage as well. No longer necessary for redemption of slot winnings or even to change bills, the cage has become more of an exclusive service for table game players. (That is, at least until redemption of gaming chips via kiosk is perfected.) Multi-function ATMs have all but ended the days when a player needs to go the cage to cash a personal check. That function is, of course, still available, and is much more efficient because of computer links that allow instant fund verification. But most players just tap their accounts at the ATM/kiosk.

Regulations are the only element in the way of even more cash-access convenience in the casino. The day may come—using technology that already exists—when players in U.S. casinos will be able to electronically transfer funds directly to a slot machine or even a table game. And in the future, when one traces that convenience back to its origin, one will find the simple cash-out ticket in the TITO system.

## New Club, New Marketing

In addition to all their cash-access wizardry, kiosks have become powerful marketing tools during the past decade. Sweepstakes events and other casino promotions no longer require a big drum in the middle of a casino containing thousands of slips of paper (unless the casino marketer wants them to, of course).

During the past 10 years, technology has taken over the sweepstakes so that players typically need only show up at a casino and swipe their players club cards at a kiosk to qualify for a sweepstakes drawing. Again, the advantage for the casino is more time at the machine for the players. Play continues right up until the time a drawing is accomplished (winners are typically picked electronically now), and a player needs to stop playing only long enough to collect the promotional prize.

The use of kiosks is only one of the many technological advancements made to players clubs during the past decade. At the turn of the century, the benefits of a players club were largely in the mailbox. Players would earn paper coupons for cash-back awards, and for “bonus coins”—known in the trade as “bounce-back cash”—that would require them to return to the casino where the rewards were earned to receive the money. “Couponomy,” a term coined by Anthony Curtis’ *Las Vegas Advisor*, was in full swing: smart players earned their cash-back on double-point days and made tours of casinos lugging the coupons they had earned.

Room offers, free meals and just about every other players club award was accomplished by sending paper through the mail. Of course, at the time, the Internet was still young.

During the past decade, casinos have used the Internet to transform the direct-mail culture into much more of an email culture. To be sure, this evolution is still ongoing—most players clubs still send room offers and other coupons through the mail. However, the industry gradually is moving toward paperless marketing. It is now easier to book free rooms through a casino’s website than to call the toll-free number on a direct-mail piece.



Photo © Oscar Einzig Photography



Nowhere is the change in players clubs more evident than at the slot machine itself. Ten years ago, there were comparatively few casinos equipped with technology first produced by New Jersey system company ACSC, now part of Bally Technologies. In 2000, that technology consisted of a physical keypad attached to the side of a slot machine. The keypad allowed a customer to access players club rewards right at the slot machine. At first, the keypads allowed players to order a cocktail or to perform other simple functions. Soon, however, cash-back awards were accessible through one of the keys on the pad, which meant players

didn't have to deal with coupons, redemption lines or running around to collect money.

As slot club technology has advanced during the past 10 years, technology to access players club rewards at the slot machine has kept pace. The old system of cash-back and bounce-back coins was replaced by a system of "free play." Called by any number of promotional names, this system uses a now-commonplace touch-screen keypad to permit players to download rewards that are almost exclusively promotional credits.

Players can no longer collect cash-back awards at one casino only to wager them at another property. Promotional credits must be wagered at least one time through on an on-site slot machine. Casinos can now measure their returns on cash-back promotions with precision and no longer risk spending promotional dollars to send players to a competitor's casino.

The players club reward system is another work in progress. The newest slot machines incorporate a "service window." Like free play, the window is known by any number of promotional names, but in essence it is a second video monitor on the face of a slot machine used purely for promotional purposes. Many of the latest slots even employ split-screen video technology for this purpose. Armed with these tools, slot machines themselves are now becoming ancillary marketing tools.

Casino marketers are only beginning to discover the benefits of the service window. The smaller video window is used to advertise shows, tournaments and special events to the customer, but as the age of server-based gaming approaches, new uses are cropping up all the time. The windows are beginning to be used for promotional games—"games within games" earned by the players through their players club points.

Streaming video is another emerging use of the service window. Players in race and sports books will soon be able to watch the events on which they have placed bets while playing a slot machine. In the age of multi-tasking, big sporting events can be streamed right onto the slot machine. Customers will be able to keep playing without missing one down of a football game or one inning of a baseball game.

## G2E in 2007

- Community gaming makes big splash
- NCRG conference co-located at G2E for first time
- Conference addresses "green" issues
- Mobile gaming comes of age
- Tiered players clubs and how to use them
- G2E Asia debuts

### NEW PRODUCTS

- Oasis SpeedMedia introduced by Aristocrat Technologies
- Agilysys debuts Hospitality Analytics 2.0
- Coin Mechanisms and Programmable Buttons
- Jackpot Junction promotional tool by Gaming Support
- IGT introduces PureDepth Multi-Layer Display



All of these advances are linked to the players club and, more specifically, player tracking—a function which has, in itself, evolved significantly with new technology over the past decade. And like most technological advances, these have had a major impact on how the casino markets itself to customers.

In 2000, information from player tracking systems was tapped by casinos for its primary purpose: to gauge, in monetary terms, how valuable to a casino a player was, and to reward that player appropriately, thus building player loyalty.

During the past 10 years, mining the information present in players club databases has become an art in itself. Customer relationship management sprung up when marketers began looking at the “total spend” of each player. They used records gleaned from collecting customer data on players club cards used not only in the casino but at point-of-sale locations in the hotel, retail outlets, restaurants, nightclubs, ultra-lounges, spas and everywhere else in the new integrated resort.

These efforts spawned new software modules for the casino’s IT and marketing departments to access. Mariposa, a software system now part of the IGT systems division, was the first to provide a technological tool by which marketing programs are tailored to individual customers based on the history of where in an integrated resort each customer has spent money.

As the revenue base of gaming floors moved away from the casino itself to non-gaming amenities, the capture and consolidation of this spending information became more important. At the same time, spending on the gaming floor has retained importance, perhaps more so as the national economic recession has restricted spending on high-priced rooms, high-end restaurants and other non-gaming amenities.

This has meant capturing data from the pit, where tables provide a gaming experience more popular among the younger generation of players. Technology to accomplish this data capture has evolved substantially during the past decade. Pit computers have largely replaced the manual rating cards on which pit bosses would estimate how much a player wagered on each hand. Optical scanning systems and radio-frequency identification have been added to the mix. RFID chips and scanning equipment make it possible to record the action being given to casinos by table-game customers, with the same accuracy long enjoyed by the slot department.

Systems like “TableID,” originally a collaboration between IGT, Progressive Gaming (now, essentially, an IGT division) and leading chip producer Gaming Partners International Corporation, have revealed the value of radio-frequency identification in gaming chips and the scanning equipment used to capture table wagering information yielded by those chips.

This technology, too, is still on the upswing, as more casinos utilize RFID-embedded gaming chips for player tracking, security and accounting purposes.

The ability to track table game play as well as slot play and non-gaming purchases is still bringing casino marketing forward and will continue to do so as the new century moves past its first decade.

## Changing the Game

Further changes in the pit have added slot-style progressive side bets to many of the newest specialty poker games, and even to many traditional blackjack games. These developments have incorporated the advancement of slot technology into the table game operation.

It is a side benefit of the remarkable decade we have seen on the slot floor, where advancements in the games themselves are still changing the way slot machines are played and moving the industry toward a new era of networked gaming.

The past 10 years have seen slot machines evolve from nickel video slots carrying animated cartoon themes to new formats such as 100-line and scatter-pay formats, as well as “cluster” formats in which jackpots result from adjacent symbols without respect to specific reels or paylines.

Beyond the formats of the games themselves, video slots have caught up a great deal with ever-advancing computer technology. During the past decade, every slot manufacturer has introduced several generations of new and powerful video formats. Graphics, 3-D animation and audio all have vastly improved during the decade.

Moreover, the computer platforms originated for video are now used for reel-spinning slots as well. What has resulted is a group of versatile, flexible slot machines that easily can be transformed between reels and video, and among various game programs and different denominations.

The denomination of a game, in fact, has become a distinction that is more and more purely the choice of the operator. Games have become routinely available to casinos in operator-selectable denominations ranging from pennies all the way up to the premium wagers. The decade also has become the era of multiple-denomination machines, ultimately reducing the number of units needed to serve different levels of players.



### G2E in 2008

- Handheld gaming devices make their debut
- Non-gaming spend evaluated for the first time
- Regulations and oversight of online gaming considered
- Players Club conference track introduced
- Casino Design co-located at G2E for first time

#### NEW PRODUCTS

- Bally Technologies' Business Intelligence System analytical product
- Casino Technology presents Gemini Sensa
- Bluebird 2 slot cabinet from WMS
- Easitrax Soft Count from MEI
- i-Table total table game solution from Shuffle Master



In fact, “multi” has been a key prefix in describing games of the past few years. Slot machines have become multi-game, multi-denomination devices, offering unprecedented choice to both operators and players. A key technological development of the past 10 years has been the ability to deliver several game programs on a single computer chip coupled with the accounting ability to track each game separately. Casinos no longer are restricted to placing quarter games in an area apart from penny and nickel games, with dollar games located elsewhere. All the denominations now can reside on a single machine.

“Multi” also is a new prefix for the content of the games themselves. The past decade began with the proliferation of multi-hand video poker in several incarnations. More recently, we have seen multi-screen slot machines—players can now wager on up to four different sets of reels and play several games simultaneously. Other incarnations include two-player set-ups, and there surely are more multi-game set-ups to come.

Additionally, multiple-progressive games have proliferated in the past decade, offering the player several possible in-house progressive jackpots in addition to a top multi-site progressive prize—all in the same machine. Overall wagering levels have risen because of technology built into the games that requires a certain wagering level—anywhere from enough to activate all the paylines, often with an extra ante wager, to a maximum bet—for the player to qualify for the progressive jackpots.

These progressives are typically tied to simple but entertaining bonus events that allow a player to win more than one progressive in a single bonus round. This is technology that has advantaged both the player and the house.

Meanwhile, several technological elements have come together to make slot play a more community-style event. Slots with mechanical bonus events have been fitted with huge bonus apparatuses that are common to several players. High-resolution LCD video displays tower over other groups of games, with bonus events common to all players on a bank. Slot machines no longer provide only a solitary entertainment experience. In jurisdictions where table games are not permitted, electronic versions of the games, complete with video dealers, are contributing further to the new social environment of the casino floor.

## Tribal Touch

The advancement of technology in slot games has not been limited to the commercial jurisdictions of North America. Slot manufacturers serving Class II tribal casinos have kept pace with the technological revolution. Class II casinos began as bingo halls but grew and progressed technologically. Tribal casinos are regulated and approved by the federal National Indian Gaming Commission (NIGC) but do not require approval of the state governments where they operate.

During the past decade, development of Class II games—technically electronic bingo but presented with the same game content as Class III games—has advanced to the point where customers at tribal Class II casinos can expect the same entertainment value in their games as customers at commercial casinos. The reason is based on the technology being employed to create the machines.

Technology has been refined during the past decade, mainly thanks to the efforts of manufacturers working with the Seminole casinos in Florida, which are now Class III facilities but were exclusively Class II for the majority of the past 10 years. Game designers have worked within the confines of the Indian Gaming Regulatory Act (IGRA) of 1988 to replicate the feel and play characteristics of a Class III game.

Since reel results on a Class II game must, under IGRA, be the result of a bingo-card pattern, game designers worked to create the same number of patterns to be randomly chosen on each Class II game's bingo card as there are number combinations in the program of a Class III game—the number combinations from which a random number generator selects reel results in a Class III game. The result is a hit frequency and payback percentage—the essence of a slot game—that is very similar between a Class II game and its Class III counterpart. The play experience is basically the same.

Class II tribal casinos have fought during the past decade to keep the play experience in these slots the same. The decade was marked by repeated attempts by the NIGC to establish technical specifications for Class II games that would provide a “bright line” of distinction to clearly delineate them as electronic bingo games under IGRA. The seven-year tenure of former NIGC Chairman Phil Hogen was practically consumed by this effort, as he formed a tribal advisory panel and sought to add elements to Class II games such as multiple touches, larger bingo screens and other standards that would distinguish a Class II game from its Class III counterpart.

In the end, tribal experts convinced the NIGC that most of the suggested changes would simply cost the tribes money by slowing down the games and making them less entertaining. The new “Minimum Internal Control Standards” drafted by the agency allow the games to continue to be produced as they had been, which, as the tribes have consistently noted, is completely within the legal framework set out by IGRA.

The large Class II manufacturers, meanwhile, have kept pace with innovation in their games, and most are now producing games in both Class II and Class III versions. The entertainment value is the same.

Class II gaming has moved beyond Indian Country and has been embraced by many states that offer paper bingo. In Mexico, where gaming has grown by leaps and bounds during the past several years, Class II machines were the first form of machine gaming introduced.

### G2E in 2009

- Casinos cope with economic realities
- Aria, the first fully networked casino, evaluated
- Conference explores how gaming increases tourism in resort environments
- Experts explain how to use social media to market your casino
- Exhibits and conference highlight the changing face of slot machines and player preferences

#### NEW PRODUCTS

- Link Craps dice slot game from Aruze Gaming
- G3 Real Link table game management system from DEQ
- GLI Link interoperability tool from GLI
- Super V+ Gaminator Cabinet from Novomatic/AGI
- Digital Display Technologies CRM solution from Tech Results

## To The Future

Many of the most innovative new technologies in slot machines are pointing directly to the future—a future in which the slot floor will be networked to provide completely new play experiences.

For the operator, the server-based floor offers unprecedented flexibility. Banks of machines can be switched out instantly between game formats according to the preferences of the players in the casino at the time. Under-performing games can be transformed in an instant to a completely new game within the same box.

Players are not left out when it comes to the advantages of networked gaming. Several manufacturers have used their ever-evolving computer platforms to create amazing new experiences on the slot floor that will fit neatly into the server-based paradigm. Virtual-reality experiences are created through professional surround-sound speaker systems, high-resolution graphics and even vibrating chairs. Movie-style video setups make ongoing bonus events visible from across the floor. The traditional reel-spinners and video poker now share the floor with an increasing number of games that redefine the very nature of the slot machine.

Technologies such as WMS Gaming's "Transmissive Reels," IGT's "Multi-Layer Display," Bally's "U-Spin" technology and others are designed to take the slot floor into the next decade, a decade in which the floor will be increasingly interconnected, offering experiences such as cooperative play, competitive play and even Xbox-style video games on the casino floor.



There are several examples of technology introduced during the past few years that points directly to the networked gaming floor. The multi-layer video technology, for instance, uses video and audio to precisely replicate the look and feel of the classic reel-spinner. This has allowed the first server-based applications to offer banks of machines that can instantly be switched between multi-line video and classic reel formats, serving a wealth of customer preferences within one gaming space.

Systems like WMS' "Adaptive Gaming" link machines to each other over a wide-area network, permitting players to log in to a game that was actually started on another machine at another casino. IGT, Bally, Aristocrat, Konami, Aruze, AC Coin and Slot and others have introduced either cooperative or competitive elements into banks of games that bring players together for shared experiences that were not even dreamed of 10 years ago.

Other technological advancements related to server-based gaming are still in their infancy. Many manufacturers now offer the ability to use slot machines for instant tournaments—switching a set of machines instantly between normal and tournament mode. Slot-makers are working with the Gaming Standards Association toward interoperability of game features between games of competing manufacturers. Mystery jackpots, bonus rewards and special promotional games now available through a single casino management system will soon be available on an enterprise-wide basis without the use of separate computer controllers or servers.

More new ways to play will come as server-based gaming takes hold—a function of the fact that networked gaming allows operators to create proprietary applications to be implemented on all machines connected to the network.

Gaming also is beginning to expand beyond the casino floor itself. Hand-held gaming terminals are becoming more common, allowing players at monitored areas away from the casino to play slots or electronic table games on a device no larger than an iPhone. These hand-held devices were introduced a few years ago with the expansion of the race and sports book—including new types of proposition wagers that can be made as events are in progress.

The next decade will see all these new technologies begin to become commonplace, as well as other developments such as online gaming applications only beginning to appear.

Will casinos become self-contained online operations, allowing competition between players in an intra-net configuration? Will casinos sponsor their own in-state online casinos? Will new casinos open with Ethernet-enabled, networked gaming floors as a standard? What new applications will be dreamed up by operators implementing server-based systems on a single-bank, area-wide or enterprise-wide basis?

These questions will all be answered soon. As the economy improves, capital budgets return and R&D budgets are augmented, the technological changes of the next 10 years promise to exceed the advancements we've seen in the remarkable decade just completed.

G2E will continue to serve as the launching pad for the advancements that will drive the industry into the future. Technology in the gaming industry is just getting started.

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