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## Report from the Global Gaming Expo, Las Vegas, November 17–19, 2009

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### Abstract

This paper is a review of the Global Gaming Expo, November 17 to 19, 2009. A number of new innovations in gambling equipment are described, including multi-game slots, multi-player electronic games (e.g., competitive bonus rounds), advances in card-based bonusing systems, and the explosive growth of new electronic table games. In addition, the conference included 3 panel sessions hosted by the National Center for Responsible Gaming.

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### NCRG and G2E

In 2009, the annual conference of the National Center for Responsible Gaming (NCRG) was held in Las Vegas in mid November, the same week as the Global Gaming Expo, also know as G2E. As a special offer, attendees of the NCRG conference were given access to the G2E conference. I attended the NCRG conference at Mandalay Bay and then spent a day at G2E “spying” on the industry.

The Expo was surprisingly busy given how hard the recession had hit the gambling industry ([Schulz, 2009](#)). Although there were fewer exhibitors at the 2009 G2E event compared to 2008, there was an increase in the number of buyers ([Leon, & Lehman, 2009](#)) perhaps indicating that the industry had expected an economic recovery in 2010.

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## Electronic Gambling Innovations

The G2E floor was crammed full of the latest electronic gambling machines, but other than different images, these slots were not substantially different from those already on the market. The points listed below are based on an examination of the technology presented at the Expo, conversations with industry representatives on the floor of the Expo, advertisement information provided by the vendors, and internet websites.

Video slot machines, and slot machines using the older physical reel technology, were both well represented. I was surprised by the large number of physical reel slots at the Expo, including those designed with five reels and multiple betting lines. Some of the physical reel slots had markedly more colorful reels that sparkled as they turned. The main change for video slots appeared to be the introduction of widescreen and HD video screens for the games. According to International Gaming Technology (arguably the gaming industry's most profitable manufacturer of computerized gambling equipment, and more commonly referred to as IGT), one-fourth of all IGT video slot titles planned for 2010 are expected to have 3-D attributes (i.e., have graphics with shading and shadow) (2009, p. 36). The larger screen also facilitates the move towards multi-play games ([G2E, 2009](#), p. 57; [IGT, 2009](#), p. 32–35; see also [Bally, 2010](#)). Some gamblers like to play on two or three machines at the same time, and IGT will now accommodate this desire by introducing multi-play slots (2009, p 32–35). A player has two, three, or four slot screens in front of them and they can spin them all at the same time. According to the advertisements, these machines perform two times the house profit averages in all regions ([IGT, 2009](#), p. 28). Multi-play games are available on some video reel games and some physical reel games.

Another big innovation is the idea of group play electronic games, which appears to be an attempt to make machine gambling a more social experience ([G2E, 2009](#), p. 57; see also “blazing hot tournaments”, [Bally, 2010](#)). Instead of playing one-on-one against the machine, the entire bank of machines can be competing for one goal, or players can be in competition against each other (e.g., in a simulated racing car experience), or all eligible players can enter a bonus round together in a “group play bonus” ([IGT, 2009](#), p., 24). Also, a multi-player version of video poker has also been developed that may make video poker more like a real poker game ([IGT, 2009](#), p. 42). In this game, video poker players will be able to share or

compete for bonuses.

IGT has also introduced a video poker game based on Texas Hold'em that apparently uses *neural net* technology to allow the customer to compete against an intelligent machine, rather than a paytable. According to the advertisement ([IGT, 2009](#), p., 42), the game is marketed towards less experienced poker players. The current neural net program does not learn the player's strategy.

### Table Games

According to [Geller \(2009\)](#), the growth of electronic table games has been explosive and the *e-pit* (electronic pit boss) has “come of age” (p. 43). The 2009 G2E Expo featured a particularly large number of automated table games, including electronic versions of roulette, blackjack, poker, sic-bo, craps, baccarat, Hold'em poker, and keno. Some of these games use electronically simulated cards or dice; other games have integrated physical objects such as cards or dice with the electronic media. In one variant of Sic-bo, three giant dice with rounded corners are located in the middle of a table that is enclosed by a plastic dome. Once the bets have been made the dice are shaken around as if by an earthquake for a few seconds, and then winning bets are paid off. At another vendor display, mechanical pulleys and gears dealt actual blackjack cards underneath a protective clear plastic table top. Yet another company had constructed a fully automatic keno game. The keno table featured a large roulette-like wheel with 2 circles of 40 red and black slots (for a total of 80 numbers) that were constantly spinning, all encased inside a large clear plastic dome. After the bets were placed, a shower of white balls exploded into the wheel's dome, followed shortly by larger pink balls. The smaller white balls slipped through holes in the wheel, but the pink balls gradually settled in the numbered slots around the wheel. As an enthusiastic student of chaos theory, this game was simply a joy to watch.

Although many games replace the dealer with an electronic dealer, one version of baccarat by IGT has a human dealer who deals the cards from a “smart shoe”. As in most games of baccarat, only two hands are dealt, the “player” and the “banker” hand. Players can bet on either hand. The cards dealt are sent to as many as 100 electronic player stations. The individual terminal screen allows the players to bet with virtual chips and follow the game in real time. The player can also access information on the “recent history of streaks, natural wins and other information” about the game. The particular terminal can be linked to several dealer tables, giving the player a choice in terms of which table to follow, thus simplifying the player's search for the mythical “hot” table. Other games can be run in fully automatic mode with no actual dealer or a partially automatic mode with some dealer interaction.

Some of these electronic table games look nearly identical to a traditional table

game, except that the cards are displayed electronically. Other games essentially look like bar top electronic gaming machines, similar to those that currently offer video poker to the patrons of drinking establishments. Still other games look more like a control console on the USS Enterprise than a gaming machine. For me, the oddest set-up is called “PlayMe Dueling Piano”, which features an automated or semi-automated physical roulette wheel surrounded by 2 (or more) functioning pianos. Each piano has 1 keyboard, and 4 places along its side for the roulette players to place their bets.

Most of the games are merely electronic versions of standard table games; however, one Swiss company has created a hybrid of Texas Hold'em and Baccarat called Tango, in which players compete against each other rather than the house.

According to the G2E preview (2009) the main advantages of many of these electronic table games are security for both operator and player, and lower fixed costs for the operator in terms of reduced table game operator wages. Many are designed for casinos that either do not operate table games at all hours or for which dealer costs are prohibitive ([G2E preview, 2009](#)). According to [IGT \(2009\)](#), the games are flexible enough to conform to almost every jurisdiction, thus giving operators in slots-only environments the opportunity to offer the table game experience to their customers. Some of these electronic table games (e.g., roulette) have already be implemented in Ontario race track slot machine venues.

### **Networks, Cards, Security, and Aroma**

In addition to the games, there were several displays on security technology and innovations in player cards. Player card innovations included cards linked to one's bank account. In addition, player cards are now being increasingly extended to table games, particularly electronic table games. As such, bonus features such as Lucky Seat® ([IGT, 2009](#), p 53) where players are randomly selected from a pool of “rated” players for a bonus, are now available to table game players as well. The IGT Advantage System improves the delivery of perks (i.e., *comps*) to customers by automating the process. According to the company's literature the IGT Advantage System includes features such as Lucky Coin® that “create floorwide” excitement and increase play by randomly selecting a winner from all qualified players ([IGT, 2009](#), p. 55). Plasma screens also allow the casino to alert players that a bonus draw is occurring. In addition, new players can be enticed with Xtra Credit® awards that can be sent to players as non-cashable credits that are easy to earn and redeem ([IGT, 2009](#), p. 55). Finally Celebration® prizes reward all eligible players a smaller prize when the larger bonus jackpot is won.

In the past, in order to organize a slot tournament the casino staff would have to haul the machines around in order to set up an isolated tournament area on the casino floor. IGT is now offering a tournament manager system which allows a

casino to set up a slot machine tournament in any bank of slot machines ([IGT, 2009](#), p., 56; see also [Bally 2010](#)).

One particular interesting exhibit included a demonstration of visual face recognition technology. According to the literature that was being distributed ([Engle, 2006](#)), a computer will store information about 80 nodal points on a human face, including the distance between eyes, width of the nose, depth of eye sockets, cheekbones, jaw lines, and the chin. Once the system has stored a *faceprint*, it can compare it to other faceprints stored in various databases. The technology takes only seconds to compare and match faceprints. In addition to the benefit of speed, facial recognition technologies do not get tired like human employees. However, the technology is not foolproof. The system usually brings up several matches so human casino surveillance staff must still make any final decision. One product offered by Biometrica puts the self exclusion program directly into the slot machine. The patron can enroll himself into the program via a self-service kiosk. This enables the patron to input his photo and any other info and select the program duration ([Pepin, 2009](#)). The database can be set up to search by name, face, and physical descriptors as desired.

Another exhibit I found fascinating was a display of aromatherapy for casino patrons presented by AromaTech, the self-described world leader in scent diffusion technology. I had heard about this before, but thought it was an urban myth. But the company is real, and it specializes in supplying hotels, casinos, fitness facilities, offices, retailers, and other public areas with distinctive scents intended to improve business. According to their advertizing literature ([AromaTech, 2009](#)), smell plays an important part in memory and emotions and their scents provide a “fresh stimulating experience”. Their system uses essential oils, which they claim can eliminate bad odors such as cigarette smoke, and kill bacteria in the air.

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## NCRG at G2E

The 2009 G2E occurred during the same week as the annual conference of the National Center for Responsible Gambling. In addition to its own conference, the NCRG organized three panels for G2E and offered free admission to the first day of the G2E for NCRG attendees. The panels were part of the G2E's session on “Corporate Social Responsibility”. The first panel discussed the issues related to running responsible gaming programs during a recession, which was a fairly straightforward summary of the impact of the recession on the availability of funds.

The second session was entitled “Myth vs. Evidence: Native Americans and Problem Gambling”, and supposedly addressed the myths of Native American gaming. Exactly what these myths are was never mentioned, and the impact of Native casinos on Native communities or surrounding communities (good or bad)

was never really discussed. Most of the time was taken up with complaints about past research and a discussion on the importance of involving Native communities in research. However, they did not address resolving any issues of conflict of interest.

The third panel was entitled “Demystifying Gaming Machines: Can a Slot Machine Cause Addiction?” The panel, which consisted of industry insiders, did not demystify gaming machines, nor did they really address the issue of causation. Most of the discussion centered on weaknesses in the data on the causal link between gambling machines and pathological gambling (a weakness that could be resolved by giving researchers more access to loyalty card data or by allowing research in their casinos). One study was criticized for its small sample sizes and variability, but the speaker did not mention the replications of those finding. Considering that the audience was made up of industry executives, it is unfortunate that NCRG did not use the opportunity to examine the issue from a more balanced perspective.

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## Summary

Although the NCRG panel sessions were very disappointing, the G2E conference overall was quite fascinating. The advances in technology are truly astonishing and innovative, but the potential harms of these advances were nowhere discussed during the conference. For example, the innovations that encourage the social and competitive aspect of gambling may be a positive move. However, the shared bonus may enhance machine entrapment. People may be even more reluctant to leave their machines for fear that someone else might sit down and participate in the next bonus round or mystery jackpot. Unlike a traditional jackpot, some of these bonus rounds may actually move closer with each play (e.g., “tournament meter”; see [Bally, 2010](#)). Such innovations may in fact reify the very myths that we have been trying to correct. Similarly, facilitating the small stakes gambler to play 4 games at the same time (e.g., multi-play) may greatly increase his or her exposure to the addictive potential of gambling.

One of the most interesting innovations was the use of neural nets in a video poker game. It is somewhat disappointing that after more than 20 years of research by cognitive scientists on neural net technologies, that one of its first commercial applications would be in a video poker game. Nonetheless, I look forward to trying to match wits with this machine sometime in the near future.

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