

# Reading the Markets

Insights from Financial Literature

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## Schüll, *Addiction by Design*

Natasha Dow Schüll's *Addiction by Design: Machine Gambling in Las Vegas* (Princeton University Press, 2012) is one of the most compelling books I've read in the past few years. Not because I was ever captivated by slot machines or video poker. In my entire life I lost a total of \$5 to a slot machine and, quite frankly, even then I didn't consider the experience worth anywhere close to \$5. But the experience has changed, thanks to technology and mathematical algorithms; it has a deeper hook. Screen traders will recognize its addictive appeal.

Schüll, an associate professor at MIT, argues that addiction to machine gambling stems from the interplay between the gambler and the machine. Drawing on fifteen years of field research in Las Vegas and extensive interviews with both designers and addicts, she shows how the "duty to extract as much money" as possible from customers and the desire to play for as long as possible combine to produce a recipe for potential addiction.

Slot machines have come a long way from the coin-fed mechanical one-armed bandits. They now use video technology, which speeds up play significantly. On average, pulling a handle resulted in 300 games an hour. Video poker players can complete 900 to 1,200 hands an hour; the rate is similar on video slots. (p. 55) The financial flow in casinos has also sped up. Players no longer have to carry around heavy cups of coins or wait for payouts. Instead, casinos are "cashless." Moreover, players who run out of money can easily tap into their checking accounts, credit cards, or debit cards—in numerous jurisdictions right from their machines—to keep on going.

Early on programmers devised techniques "not only to distort players' perception of games' odds but also to distort their perception of losses, by creating 'near miss' effects. Through a technique known as 'clustering,' game designers map a disproportionate number of virtual reel stops to blanks directly adjacent to winning symbols on the physical reels, so that when these blanks show up on the central payline, winning symbols appear above and below them far more often than by chance alone." (p. 92)

Increasingly, mathematicians are designing games that match "math with markets, player types with schedule types." (p. 109) There are two basic types of players—jackpot players who prefer "high volatility, low hit frequency" games and escape players (play-to-win-to-play players) who prefer "low volatility, high hit frequency" games. "On both machines you end up in the same place, which is zero. ... It just takes longer to get there on the second one." (p. 111)

The gamblers that Schüll interviewed were escape players. As a casino executive said, “What they really want to do ... is to play and forget and lose themselves. ... [They want to] get in the zone” where “their own actions become indistinguishable from the functioning of the machine.” (pp. 170-71) This zone is not a happy place. Unlike Csikszentmihalyi’s flow, which is “life affirming, restorative, and enriching, ... repeat machine gamblers ... experience a flow that is depleting, entrapping, and associated with a loss of autonomy.” (p. 167) It is decidedly worse than T. S. Eliot’s melodramatic description of playing solitaire as “the nearest thing to being dead.”

Schüll’s book is masterfully crafted; it “hooks” you to keep reading until there is nothing left to read. You come away, however, enriched, not depleted. The interviews are gripping, the analysis is sophisticated, and the topic is important—not least because we are all being bombarded with technology that enables us to be “in the zone” in a host of deleterious ways. Traders who are even slightly self-reflective are bound to see something of themselves in these gambling addicts, and may perhaps take a deep breath.