

Bio of Dr. Kevin A. Harrigan, PhD

Kevin is a Research Associate Professor at the University of Waterloo where he teaches computer game design (i.e. video games).

He is the founder and lead researcher of the University of Waterloo's problem gambling research team. The team's research focuses on the structural characteristics of slot machine and VLT games and the potential negative affect these characteristics may have on the player. The team's website is: <http://problemgambling.uwaterloo.ca/>.

His research interests are in computer software algorithms and mathematical algorithms used in computer games and electronic gambling machines. He has analyzed the design documents, called PAR Sheets, for slot machine games that have been approved for use in Ontario and has written several peer-reviewed journal articles that are based on his analysis. The PAR Sheets were obtained through Freedom of Information.

With his colleagues, he conducts research studies to determine the slot machine player's physiological responses to certain outcomes such as wins, losses, losses disguised as wins, near misses, and winning/losing streaks. The measures taken include heart rate (inter-beat intervals), pupil dilation, galvanic skin response (perspiration), and event related potentials (brain activity). He acts as an expert witness in cases involving electronic gambling machines including slot machines and video poker.

References

- Harrigan, K. A., & Dixon, M. (2009). Government sanctioned "tight" and "loose" slot machines: How having multiple versions of the same slot machine game may impact problem gambling. *Journal of Gambling Studies*. Available through Online First.
- Harrigan, K. A. (2009). Slot Machines: Pursuing Responsible Gaming Practices for Virtual Reels and Near Misses. *International Journal of Mental Health and Addiction*, 7(1), 68-83.
- Harrigan, K. A. (2008). Slot machine structural characteristics: Creating near misses using high symbol award ratios. *International Journal of Mental Health and Addiction*, 6(3), 353-368.
- Harrigan, K. A. (2007). Slot Machine Structural Characteristics: Distorted Player Views of Payback Percentages. *Journal of Gambling Issues*, 20, 215-234.
- Harrigan, K. A., & Dixon, M. (2009). PAR Sheets, probabilities, and slot machine play: Implications for problem and non-problem gambling. *Journal of Gambling Issues*, 23, 81-110.
- Dixon, M., Harrigan, K., Sandhu, R., Collins, K., & Fugelsang, J. (submitted). Losses Disguised As Wins in Video Slot Machines: "If I keep on winning, I am going to go broke."