The House Advantage: Trade Secret Protections on the Casino Floor.

Kevin Johnson

As long as there have been slot machines, there have been slot cheats. From the early days of slugs and shaving to more sophisticated cheaters who target a machine's programing, the technology of cheating has developed in lock step with the technology of gambling. As a result, gaming operators and regulators are rarely surprised by what occurs within their casinos. However, occasionally a malicious act is so unexpected that it causes the entire industry to react. Generally speaking, these surprises are a new technique or device that beats the machine. In July of 2013, it was *who* beat the machine.

On July 12, 2013, Ryan Tors, while employed as the director of slot operations at the Peppermill Hotel and Casino in Reno, Nevada, was apprehended while using a "reset" key to access the diagnostic screens of slot machines at the Grand Sierra Resort ("GSR"), a local competitor.¹ This "reset" key, also known as a "2341" or a butterfly key in the industry, allows a technician to place machines in or out of service, clear meters, or adjust a machine's sound. It also allows access to the diagnostic information, play history, logs, and game configuration of the slot machine. Tors, however, was most interested in the theoretical hold percentage and theoretical payback percentage of the games which the key allowed him to access. These settings, dictate the amount that the machine will pay out over time.² These settings are provided to operators by manufactures on a "Probability Accounting Report," or PAR sheet and commonly referred to as the PARs of the machine.³ To understand why he was interested in these settings you must understand the trends occurring in the wider Reno market.

Operating a casino is a cut throat business. Peppermill had traditionally been the most popular property in the Reno market, but times were changing and competition was growing.

³ Understanding Slot Machine Math Basics. Indian Gaming.

¹ ¶12-14. Complaint, *NGCB v. Peppermill*, Case No. NCG-13-23

² E. Malcolm Greenlees, *Casino Accounting and Financial Management* (2008). See Also *Understanding Slot Machine Math Basics*. Indian Gaming. http://www.indiangaming.com/istore/Dec15_Ashley.pdf

http://www.indiangaming.com/istore/Dec15_Ashley.pdf

Other Reno properties, such as the GSR were growing in popularity. The GSR had been a victim of the national recession and a floundering Reno market.⁴ As a result, it had been taken over by J.P. Morgan Chase.⁵ Not at all interesting in running the resort or getting licensed, Morgan quickly found a buyer.⁶ By April of 2011, new ownership had taken over the property and quickly began to invest in it.⁷ As investment in the new property grew, so too did the GSR's market share as locals and tourists alike returned to the property.⁸ This growth did not go unnoticed by the properties whose losses where fueling it, including the Peppermill.

Facing this threat to their market position, Peppermill decided to take action. In an effort to understand their competitor's strategic positions, management instructed Tors, to systematically gather the PAR information of their competitors.⁹ He was able to collect this information by hacking machines throughout Reno from 2011 until he was detained by gaming control authorities on July 12, 2013.

As Tors was interrogated by gaming control agents, the value of this stolen information became clearer. The theoretical payout percentage dictates how much a machine pays back over time. For example, a common payout setting is 95%. If a machine's is set to 95%, it will pay back .95 of every dollar played into it. This may lead many avid slot players to wonder how they are losing their money so quickly. The key is that these percentages govern payouts over time, not to each individual player. In practical terms, most people who play a given machine will not get 95% back of what they spend. However, that machine will eventually pay out a jackpot that

⁴ GSR Changes Ownership, Associated Press, February 23, 2011,

http://www.koloty.com/home/headlines/Grand Sierra Resort Changes Ownership 116774664.html (last visited Feb 10, 2017).

⁵ Id.

⁶ Id. ⁷ Id.

⁸A boon to Nevada's Economy: Tourism Growth. Nevada Business. February 1, 2016.

http://www.nevadabusiness.com/2016/02/a-boon-to-nevadas-economy-tourism-growth/

⁹ ¶1 Stipulation for Settlement and Order, *NGCB v. Peppermill*, Case No. NCG-13-23.

is large enough to make the percentage accurate once again. The theoretical hold percentage is the inverse of the theoretical payout.¹⁰ If the payout is set to 95%, then the hold percentage is 5%.

This information for a single machine at any point in time is functionally worthless. However, the PAR percentages of an entire casino floor or a given type of popular game across the floor can be useful information; especially if this information is tracked and evaluated over time. It can indicate how "loose" or "tight" a property is relative to another and indicate wider trends that are occurring in the market. Moreover, if these percentages are known over a length of time, you effectively have a window into your competitor's operational strategy and can more effectively move to counter it or strategically position themselves in the market place to maximize their profits.

This window into the GSR's corporate strategy and improving market position is what interested Ryan Tors and the Peppermill. In an effort to protect Peppermill's position in the market, Ryan Tors had been systematically collecting this information from his competitors for years. This gave him the unique ability to fact check his competitors' marketing claims and undermine them. When a casino claimed to be the loosest, he knew exactly how loose they were and could react quickly. More importantly, armed with this information, the Peppermill could know exactly how much they had to adjust their machines to undercut the competition without lowering their hold percentages too much and needlessly lowering their profitability. For example, a nickel machine might have four possible theoretical payout settings, 97%, 95%, 93%, and 91%. One of the Peppermill's competitors might claim the loosest nickel slots in town and have their machines set at 93%. Without knowing this setting, the only way the Peppermill could positively make the same claim would be to set their machines to the highest possible payout

¹⁰ E. Malcolm Greenlees, *Casino Accounting and Financial Management* (2008). See Also *Understanding Slot Machine Math Basics*. Indian Gaming. http://www.indiangaming.com/istore/Dec15_Ashley.pdf

settings, 97% in this case. Any other setting and they could not be sure their advertising is accurate. However, if they knew that their competitor set their machines to 93% and claimed the loosest machines in town, the Peppermill could set their nickel slots to 95% and take the title for themselves without having to sacrifice 2% of all their nickel slot play. In short, thanks to their casino spy, the Peppermill had eliminated much of the guesswork inherent in operating a slot floor while maximizing their possible profits.

When Tors was finally caught and turned over to gaming control authorities, the depth and scope of this scheme gradually began to unfold. Through their investigation, the gaming control board discovered several important facts; first that Mr. Tors had been active in properties throughout Reno.¹¹ Second, it became clear that Tors was acting "in the course and scope of his employment" and that Peppermill Casinos' management "knew of, approved of, and directed Mr. Tors' conduct of obtaining theoretical hold percentage information from the slot machines of other casinos using a 'reset' key."¹² As a result of these facts, The Peppermill Hotel and Casino was fined one million dollars which represented the second largest fine ever levied by the Nevada Gaming Commission at the time.¹³ Peppermill's electronic espionage also led to other changes in the industry. Primarily, gaming regulators in Nevada mandated new procedures and controls for "2341" keys and the employees that have access to them state wide.¹⁴

¹¹ In addition to the GSR, Tors had keyed machines at the (a) Eldorado Hotel and Casino, Reno, Nevada; (b) Circus Circus Hotel/Casino, Reno, Reno Nevada; (c) Siena Hotel Spa Casino, Reno, Nevada; (d) Tamarack Junction, Reno, Nevada; (e) Wendover Nugget Hotel & Casino, Wendover, Nevada; (f) Red Garter Hotel & Casino, Wendover, Nevada; (g) Atlantis Casino Resort, Reno, Nevada; (h) Hobey's Casino, Sun Valley, Nevada; (i) Rail City Casino, Sparks, Nevada; and (j) Baldini's Sports Casino, Sparks, Nevada. ¶17. Complaint, *NGCB v. Peppermill*, Case No. NCG-13-23.

¹². ¶17-18. Complaint, *NGCB v. Peppermill*, Case No. NCG-13-23.

¹³ ¶3. Stipulation for Settlement and Order, *NGCB v. Peppermill*, Case No. NCG-13-23.

¹⁴ Nevada Regulators: Slot reset keys give limited access. Bill O'Driscoll. February 22, 2014. http://www.rgj.com/story/money/gaming/2014/02/21/nevada-regulators-slot-reset-keys-give-limited-access/5702819/

Eventually, Peppermill's breaches led to civil actions as well. The GSR filed a civil suit seeking damages against the Peppermill. They alleged, among other things, that the information stolen amounted to a trade secret that Peppermill had misappropriated. The ensuing litigation raised novel issues never before examined by any court. Namely, can the PAR settings maintained by a property, be held as a trade secret?

Trade Secrets Generally

Protecting trade secrets is not a novel concept. Many scholars have traced the concept of a "trade secret" back to ancient Rome and a concept known as *actio servi corrupti*, interpreted as an "action for making a slave worse."¹⁵ Essentially, this idea meant that a "Roman owner of a mark or firm name was legally protected against unfair usage by a competitor..."¹⁶ Essentially, "*actio servi corrupti* [allowed authorities] to grant commercial relief under the guise of private law actions."¹⁷ A more recognizable form of trade secret law emerged in 1817 with the English case *Newbery v. James.*¹⁸ This case involved the unsuccessful attempt to prevent the disclosure of a secret invention.¹⁹ Despite being unsuccessful, this case marks the first time an issue was discussed in a way that foreshadowed future trade secret cases. *Vickery v. Welch* marks the first American consideration of a trade secret case as the Massachusetts's Supreme Court considered the sale of a secret chocolate making method.²⁰

Trade Secret Law continued to grow on both sides of the Atlantic until finally making an appearance in the Restatement of Torts published by the American Law Institute in 1939.²¹ In 1974, a US Supreme Court case cleared the way for states to develop their own trade secret

¹⁷ Id.

¹⁵ Alan Watson, Trade Secrets and Roman Law: The Myth Exploded, 11 Tul. Eur. & Civ. L.F. 19, 19 (1996). ¹⁶ Id.

¹⁸ Newbery v. James, (1817) 2 Mer. 446, 35 Eng. Rep. 1011, 1013 (Ct. Ch. 1817).

¹⁹ Id

²⁰ Vickery v. Welch, 36 Mass. 523, 523 (1837).

²¹ Restatement of Torts § 757 (Am. Law Inst. 1974).

protections.²² Shortly thereafter, states began to adopt the Uniform Trade Secrets Act. To date, 47 states have done so, along with Washington DC, Puerto Rico, and the U.S. Virgin Islands.²³ At the Federal level, the Economic Espionage Act of 1996 made it a Federal crime to misappropriate trade secrets for the benefit of a foreign government.²⁴ Most recently, the Federal Government passed the Defend Trade Secrets Act which created civil trade secret protections at the Federal level for the first time.²⁵

Still, trade secrets law is not easily understood. In fact, legal scholars cannot agree among themselves what trade secret law actually is. Traditionally, trade secret law stems in part from intellectual property theory and part from tort theory.²⁶ On one hand, trade secrets convey property rights to the holder of the trade secret as a patent or trademark would. On the other, they seek the "deterrence of wrongful acts... [and] to punish and prevent illicit behavior, and even to uphold reasonable standards of commercial behavior," which makes them more punitive in nature, similar to an action in tort.²⁷

Likewise, trade secrets have been alternatively described as a collateral issue of contract law, a question of property law, and even a question of "commercial morality," based in the inherent equitable powers of a court.²⁸ Other legal theorists reject these approaches altogether and call trade secret law a "collection of... legal wrongs not easily redressed by other areas of law lumped together by courts or legislatures without other recourse."²⁹ These scholars view

²² Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 94 S.Ct. 1879, 40 L.Ed.2d 315 (1974)

²³ "Legislative Fact Sheet - Trade Secrets Act". Retrieved 2017-04-03.

http://www.uniformlaws.org/LegislativeFactSheet.aspx?title=Trade%20Secrets%20Act ²⁴ 18 USC § 1831.

²⁵ 18 USC § 1832.

²⁶ Mark A. Lemley, *The Surprising Virtues of Treating Trade Secrets as IP Rights*, 61:311 The Law and Theory of Trade Secrecy (2008).

²⁷ Id.

²⁸ Id.

²⁹ Robert G. Bone, *A New Look at Trade Secret Law: Doctrine in Search of Justification*, 86:241 California Law Review (1998).

trade secret law as nothing more than an attempt to provide a remedy for conduct that "feels" wrong.

Each of these approaches has its strengths and its weaknesses and trade secret law integrates aspects of all of them. With time however, the intellectual property theory of trade secrets has taken over as the prevailing justification for this area of law, although elements of torts and contract law persist. This unique character has required both judicial and legislative adjustments to make the theory practicable. "Secrecy" and "independent economic value" have become substitutes for other factors commonly evaluated in intellectual property cases such as ownership, authorship, or originality.³⁰ These adjustments form the basis of any trade secret analysis and are codified in the Uniform Trade Secrets Act as adopted by most states. Under the Uniform Trade Secrets Act, a "trade secret" is defined as:

information, including a formula, pattern, compilation, program, device, method, technique, or process, that:

(i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.³¹

The elements contained in this definition are the center of trade secret litigation and this paper will analyze them in turn against the nature of PAR information and the facts of the Peppermill case.

What are trade secrets?

Unlike patents, trademarks, or copyrights, trade secrets do not have the benefit of clearly

defined subject matter or judicial frameworks. This has led to a variety of outcomes and a

relative uncertainty behind each trade secret action. Often times, these outcomes directly

³⁰ Id.

³¹ Uniform Trade Secrets Act, 1985.

contradict each other as the same potential trade secret has been tried in different courts and different outcomes are reached. For instance, some courts have held that scientology's religious texts are trade secrets on the grounds that they have licensing value.³² While other courts have held that these same texts cannot be trade secrets as they are religious and not commercial in nature.³³ Likewise, restaurant recipes have been considered trade secrets in some courts and denied protection in others.³⁴ Sometimes rulings turn on semantics as the same concept under different names finds different results in different courts.³⁵ Other times there is no identifiable rationale behind the decisions. For instance, nearly every type of financial record a business can produce has been designated as both a trade secret and not a trade secret.³⁶

Facing this confusion, scholars have attempted to establish a baseline understanding of what a trade secret is. Some look at the factual circumstances and identify certain situations as more likely to give rise to trade secrets, such as competitive intelligence, business transactions, and departing employees.³⁷ Others look for characteristics of the trade secret itself to establish a frame work that could be used to identify trade secrets. These traits include whether the secret is worth clawing back after release, discreteness of the secret, or spoilability, among others.³⁸ Despite how unsettled this area of law is among scholars, as a practical matter, the courts and legislators have reduced trade secrets to a two factor test. First, is the information secret? Secrecy

³² Religious Tech. Ctr. V. Netcom On-Line Commc'n Servs., Inc., 923 F. Supp 1231 (N.D. Cal. 1995).

³³ Bridge Publ'ns, Inc. v. Vien., 827 F. Supp. 629 (S.D. Cal. 1993).

³⁴ Buffets, Inc. v. Klinke, 72 F.3d 965 (9th Cir. 1996)(holding that a buffet's recipes were not trade secrets); Uncle B's Bakery, Inc. v. O'Rourke, 920 F.Supp. 1405 (N.D. Iowa 1996)(holding that a bagel recipe was a trade secret).

 ³⁵ Astro tech., Inc. v. Alliant Techsystems, Inc., Civ. No. AH-03-0745, 2005 WL 6061803 (S.D. Tex. 2005)(Holding that a "generalized" plan for reaching a "general" goal was not a trade secret); Avery Dennison Corp. v. Kitsonas, 118 F. Supp. 2d 848 (S.D. Ohio 2000)(Holding that a "business philosophy" was protectable as a trade secret).
 ³⁶ Prairie Island v. Minn. Dept. of Pub. Safety, 658 N.W.2d 876 (Minn. Ct. App. 2003)(holding that consolidated balance sheets, cash-flow statements, and profit-and-loss statements were not trade secrets). *RKI, Inc. v. Grimes*,

¹⁷⁷ F. Supp. 2d 859 (N.D. III. 2001)(Holding that financial information in a company's database is a trade secret). ³⁷ Mark A. Lemley, *The Surprising Virtues of Treating Trade Secrets as IP Rights*, 61:311 The Law and Theory of

Trade Secrecy (2008).

³⁸ Eric E. Johnson, *Trade Secret Subject Matter*, 33:545 Hamline Law Review (2010).

is "indispensable to an effective allegation of a trade secret" and is a question of fact and must be claimed and maintained by the party claiming a trade secret. ³⁹ Second, the holder must "derive independent economic value, actual or potential, from not being generally known to or readily ascertainable through proper means..."⁴⁰

Trade Secrets and Slot Machines

Applying this mess of authority to the chaos of a casino is not a simple task. There are only a few cases that have attempted to do this and they have focused on issues only tangentially related to gaming such as client lists.⁴¹ The analysis performed in these cases has been less focused on the trade secret analysis itself and more focused on collateral issues such as non-compete clauses so they are of little value to this analysis. This paper will be an organic review of the events that occurred in Reno and applicable case law out of multiple jurisdictions that have adopted the Uniform Trade Secret Act or similar legislation.

Secrecy: the Foundation of Trade Secrets

What occurred in Reno at the GSR is an interesting case study in secrecy and efforts to maintain it for the purposes of trade secret law. Like many trade secrets, PARs are inherently secret. Unless explained to them, the average player would not even know that they existed and were shaping the course of their evening. However, their secrecy can be pierced by an individual with the right knowledge and skills. Armed with the proper mathematical formulas and data, PARs can be accurately reversed engineered. This dismantling of a secret is often put forth as a defense to trade secret cases. After all, if a trade secret is easily determined by competitors, can it really be considered a secret?

³⁹ 1-1 Milgrim on Trade Secrets § 1.03 (2015)

⁴⁰ Id.

⁴¹Golden Rd. Motor Inn, Inc. v. Islam, 376 P.3d 151 (Nev. 2016).

There is no dispute that PARs can be reversed engineered by someone with the knowledge to do so. Experts in slot operation can utilize complicated formulas for determining what a casino's PARS are. All of these techniques require extensive slot play and complex mathematical formulas to evaluate the data collected while playing. Five of these schemes, theo request, ratio analysis, ratio elimination, blind bin analysis, and minimal bin analysis, require in depth knowledge of a casino's player loyalty programs. Other methods, termed video deconstruction or fingerprinting of real trip elimination, require employees to secretly and repeatedly photograph the slot machine while it is being played. The question is whether or not being reverse engineer-able through these means defeats trade secret protection and the relative ease of reverse engineering.

Multiple courts have evaluated the ease of reverse engineering defense. In *AvidAir Helicopter Supply, Inc. v. Rolls-Royce Corp.*, the Eighth Circuit held that revised helicopter overhaul specifications approved by the FAA were trade secrets under the Uniform Trade Secret Act.⁴² Rolls-Royce developed and produced engines used in both civilian and military helicopters.⁴³ A subsidiary of Rolls-Royce was tasked with developing modifications to these engines and issued proprietary instructions for doing so.⁴⁴ These instructions were used by AvidAir and became the subject of this suit.⁴⁵ Even though the revisions were "relatively minor" updates from publicly available information and the defendant could have easily received "FAA approval for a procedure that [was] based on only publicly available information," defendant's "repeated attempts to secure the revised [overhaul information] without [plaintiff's] approval belie[d] its claim that the information in the documents…" was easily reverse engineered and not

⁴² AvidAir Helicopter Supply, Inc. v. Rolls-Royce Corp., 663 F.3d 966 (8th Cir. 2011).

⁴³ *Id.* at 969.

⁴⁴ *Id.* at 969-70.

⁴⁵ *Id.* at 969-71.

secret.⁴⁶ The court reasoned "[e]ven if information potentially could have been duplicated by other proper means, it is no defense to claim that one's product could have been developed independently of plaintiff's, if in fact it was developed by using plaintiff's proprietary designs."⁴⁷

Likewise, in *K* & *G* Oil Tool & Serv. Co. v. G & G Fishing Tool Serv., the Texas Supreme Court held that a magnetic fishing tool was a trade secret. In doing so, the court found that the tool could be easily duplicated "by an examination of the tool without disassembling it," and wasn't obviously secret at all.⁴⁸ However, the Court reasoned that because defendant "did not learn how to make the [plaintiff's] tool or a device similar thereto by observing it in an assembled or unbroken condition, but learned of its internal proportions, qualities, and mechanisms, by taking it apart despite an agreement that it would not do so" they could not later argue it was not a trade secret.⁴⁹ The court further held that that the "fact that a trade secret is of such a nature that it can be discovered by experimentation or other fair and lawful means does not deprive its owner of the right to protection…" in other words, even if a trade secret can easily be determined through lawful means such as reverse engineering, it can still be considered secret.⁵⁰

Other courts have held that for this defense to work, the trade secret must be ascertained "quickly" or be so "self-revealing" to be ascertainable "at a glance." ⁵¹ This line of thinking has

⁴⁶ *Id.* at 973-74.

⁴⁷ *Id* at 973.

⁴⁸ K & G Oil Tool & Serv. Co. v. G & G Fishing Tool Serv., 314 S.W.2d 782, 788 (Tex. 1958).

⁴⁹ Id.

⁵⁰ Id.

⁵¹ See *Motorola, Inc. v. Lemko Corp.*, No. 08 C 5427, 2012 WL 74319, at *19 (N.D. Ill. Jan. 10, 2012) (holding that trade secret protection is applicable assuming the secret does "not involve self-revealing information that any user or passer-by sees at a glance"); *Amoco Prod. Co. v. Laird*, 622 N.E.2d 912, 919 (Ind. 1993) (Specified that the protected information need not "be unascertainable at all by proper means, but only that they not be readily or quickly ascertainable by such means"); *Nat'l Instrument Labs., Inc. v. Hycel, Inc.,* 478 F. Supp. 1179, 1182 (D. Del. 1979) (secrets that are "ascertainable at a glance" will lose protections); *Smith v. Dravo Corp.,* 203 F.2d 369, 375 (7th Cir. 1953)(holding that cargo container, available on the open market and accessible to defendant for

lead courts to require a speed and efficiency to reverse engineering for this defense to be persuasive. ⁵² The Courts generally look at the average knowledge and capabilities of the industry to determine the required speed and efficiency of reverse engineering. ⁵³

Here, reverse engineerability should not defeat secrecy when discussing PARs. Even if they could be reverse engineered this fact alone is not enough to prevent trade secret protection. They must also be quickly and easily reverse engineered "at a glance." Requiring experts and complicated formulas to mount a defense undermines the ability to argue that reverse engineering is easy or quick. The helicopter designs in *Rolls Royce* were clear to anyone in the industry and easily recreated. Likewise, the magnetic fishing tool in K & G Oil was a simple product by any standard. Both trade secrets where simpler and easier to reverse engineer than PARs and yet both were still considered trade secrets.

There is no case law that allows a defendant to claim that the complicated observation and mathematical formulas necessary to determine the PARs of a casino can justify reverse engineering as a defense. Even if there was, the fact that the PARs in a single machine and across the casino floor are so quickly and easily changed makes it even harder to show that they could be easily reverse engineered. By the time an agent had observed a machine long enough and collected enough data to determine the PARs, the settings could easily be changed once again. This variability is a serious obstacle to reverse engineering and explains why a party seeking this information would have to steal it.

inspection, was a protectable trade secret because there was no evidence that the "construction of which was ascertainable at a glance").

⁵² CheckPoint Fluidic Sys. Int'l, Ltd. v. Guccione, 888 F. Supp. 2d 780 (E.D. La. 2012) (holding even though "pumps can be reverse engineered does not bar a trade secret claim, as long as the pumps cannot be reverse engineered so quickly as to be 'readily ascertainable'"); *Rycoline Products, Inc. v. Walsh*, 756 A.2d 1047 (N. J. App. Div. 2000) (to be readily ascertainable, defendant must demonstrate that the "information can be ascertained quickly").
⁵³ Stewart & Stevenson Servs., Inc. v. Serv-Tech, Inc., 879 S.W.2d 89 (Tex. App. 1994) (to be a protected trade secret, Inc. v. Serv-Tech, Inc., 879 S.W.2d 89 (Tex. App. 1994).

[&]quot;the trade secret must not be generally known to or used by the industry or a matter completely disclosed or ascertainable at a glance").

Finally, it is important to note that even the best formula deployed by most capable expert can only approximate the PAR across the Casino floor. They may be able to get very close, but they cannot determine PARs with exactness. There are too many machines on the floor and too many possible variables for this calculation to work. This lack of definitiveness further undermines the claim that the PARs aren't secret and easily reversed engineered. In short, reverse engineering is only a defense if it can be done quickly, easily, and accurately. PARs are sufficiently difficult to reverse engineer and so easily variable that they cannot be reverse engineered quickly, easily, and accurately. However, even if Peppermill cannot claim reverse engineering as a defense, this is not the end of the secrecy analysis.

Declaring something "secret" has its reasonable limits whether or not it can effectively be reverse engineered. An aggrieved business owner can't simply declare information as secret once they allow it to become widely known and then attempt to file suit. You cannot "claw-back" trade secrets once they are made public. To embody this principle, the secrecy requirement of trade secrets often morph into an analysis of a party's reasonable efforts to keep the information secret. In E.I. du Pont deNemours & Co. v. Christopher, the defendants were photographers hired by an unknown third party to take aerial photographs of new construction at the Plaintiff's plant.⁵⁴ The Defendants brought a motion for summary judgment arguing that they were in public airspace and that if the plant's design was not kept secret.⁵⁵ The Fifth Circuit held that fencing and maintaining security at the site were sufficient efforts to maintain secrecy and upheld the district court's denial of summary judgment.⁵⁶

Likewise, other courts have approved of pedestrian measures under taken by Plaintiffs to protect their trade secrets. In Matter of Innovative Const. Sys., Inc., the Court held that even

 ⁵⁴ E. I. du Pont deNemours & Co. v. Christopher, 431 F.2d 1012, 1013-14 (5th Cir. 1970).
 ⁵⁵ Id at 1014.

⁵⁶ *Id* at 1016-17.

though plaintiff "did not employ security personnel, and the plant was not locked during working hours" formulas were considered reasonably protected trade secrets because they "were kept in a notebook in the plant manager's office, and hence out of view"⁵⁷ A similar holding was reached in *Hickory Specialties, Inc. v. B & L Labs., Inc.*, which also dealt with an unguarded plant and employees that were not instructed as to secrecy.⁵⁸ The Court held that the plaintiff took reasonable steps to protect its trade secret as "plaintiffs took some steps to keep its operations confidential" even though "these measures admittedly were not stringent enough to withstand a deliberate spying attempt."⁵⁹

Still other Courts have applied a similar test and found the efforts taken to maintain secrecy insufficient.⁶⁰ Looking at the entirety of the situation surrounding claimed trade secrets, the Minnesota Supreme Court in *Electro-Craft Corp v. Controlled Motion, Inc.* found that "fatally lax" security measures were insufficient to sustain a trade secret claim.⁶¹ These failings included a failure to mark technical documents, drawings, and diagrams, as "confidential" when they were distributed to customers and vendors and a failure to properly restrict and train staff.⁶² Informal tours of the facilities where products were being made and plans stored also contributed to an environment incapable of producing trade secrets.⁶³

Casinos have protections in place to keep their PARs secret. First, PARs are only accessible by a physical key. More importantly, casinos have extensive security measures in place to protect the integrity of their machines. These measures include security cameras that are constantly watching and patrolling the floor. These cameras work in tandem with hundreds of

⁵⁹ Id.

⁶³ Id.

⁵⁷ *Matter of Innovative Const. Sys., Inc.,* 793 F.2d 875, 885 (7th Cir. 1986).

⁵⁸ Hickory Specialties, Inc. v. B & L Labs., Inc., 592 S.W.2d 583, 587 (Tenn. Ct. App. 1979).

⁶⁰ Electro-Craft Corp. v. Controlled Motion, Inc., 332 N.W.2d 890 (Minn. 1983).

⁶¹ Id.

⁶² Id.

live security personal trained to spot and stop irregularities. The fact that hundreds of casino cheats are captured every year, and that Ryan Tors was captured while attempting to steal the GSR's pars, speak to the efficiency of the security measures in place.

However, it should be noted that the "2341" keys in question are readily available. At the time of this writing, used "2341" keys were available for purchase by anyone online.⁶⁴ Since the incident in Reno, Nevada gaming regulators have required increased security measures surrounding reset keys at all properties in the state.⁶⁵ This state action along with the wide availability of the keys undercuts the contention that the keys were useful to secure the secrecy of trade secrets. Likewise, the other security measures in place have nothing to do with trade secrets, but were designed to prevent cheating, stealing, and other conventional crimes on the casino floor.

Attacking the security measures in place is common and makes logical sense, but it is undermined by the established case law. The Court in *Dupont* held that a party claiming trade secret protections did not have to take extreme and unorthodox measures to protect their trade secrets. Requiring a casino to put extra protections in place for their trade secrets would be akin to requiring the plaintiff in *Dupont* to put a massive roof over their factory. It would not be practical or fair to require such lengths to protect their trade secrets.

Courts have codified this principle into common law. The Court in *Electro-craft* found security measures lacking because the basic requirements common in the technology industry were not being followed and so they were "fatally flawed." In the casino, the theft of PAR information is unprecedented. As such, established security measures were not prepared to

⁶⁴ http://www.ebay.com/itm/Attendant-reset-keys-2341-

^{/121746934761?}hash=item1c58aecbe9:g:H0UAAOSwHnFVu6z-

⁶⁵ Slot Machine Keys Sold Online but Are They Useful?, The Washington Times, March 14, 2014. http://www.washingtontimes.com/news/2014/mar/14/slot-machine-keys-sold-online-but-are-they-useful/

handle it. However, the measures in place, as a whole, are in no means "fatally flawed." This is evidenced by the fact that hundreds of slot cheats are captured each year as they attempt to tamper with machines. Likewise Mr. Tors was captured as he attempted to misappropriate trade secrets from his competitors. However, even if the GSR's security measures hadn't been effective, the court in *Hickory* made it clear that security measures need not withstand "direct espionage attempts." Evaluating these facts and the case law it is clear that casino security systems are more than sufficient to maintain the secrecy of Par information.

Finally, it is possible to inadvertently publish your trade secret and lose any protection you may have been entitled to. When dealing with PAR information, this mistaken disclosure would likely look like a marketing campaign or other public statement by the casino. A casino may advertise that they have the loosest casino in town. They may advertise that a popular game found at every casino pays out the most at their property. For example, the "Buffalo" is a nickel slot machine that is among the most popular games on any casino floor. Promoting the loosest Buffalo machines in town would be a good way to win over local, frequent gamblers who play only this specific machine. As these machines are so common, the par settings for them would likely be widely known to the other operators in town. So, by advertising the loosest par settings in town, a casino would be publishing their exact PARs on this game to all of their competitors and it would no longer be secret.

Even if the GSR had published their PAR information in this way, many trade secrets cases deal with expressly public information and this is not a bar to trade secret protection. In *Avidair*, the information had been made expressly public through the FAA and it was still found to be a trade secret.⁶⁶ Likewise, in *Conseco.*, the court evaluated whether marketing "lead sheets"

⁶⁶ Avidair, 663 F.3d at 975.

could be considered trade secrets.⁶⁷ These sheets were "accessible to the public," but were still deemed trade secrets because the information they contained could not "be obtained from alternative sources."⁶⁸ In *Clark v. Bunker*, information in a plan for marketing prepaid funeral services was still considered a trade secret despite being contained in brochures distributed to the public.⁶⁹ In short, the secrecy required for trade secret protection is not total or complete secrecy and may not be automatically defeated simply because some PARs are ascertainable from public advertisements.

As the preeminent element behind trade secret cases, secrecy is complicated but vital. The very nature of PARs and slot machine data speaks to their being secret. Likewise, pars are not sufficiently public or obvious to be reversed engineered without considerable effort. Finally, casinos generally have substantial security measures in place to protect their operations and by extension their PAR data. Taking all of these factors together, theoretical hold percentages in a casino generally meet the secrecy requirements to gain trade secret protection. As in many trade secret cases, this secrecy surrounding PARs is tied directly into the misappropriation that occurs on a case by case basis.

MISSAPROPRIATION AND USE OF PARS AS TRADE SECRETS

Nevada and other jurisdictions that have adopted the Uniform Trade Secret Act provide three alternative definitions for "misappropriation."⁷⁰ It is defined as:

(a) Acquisition of the trade secret of another by a person by improper means;

(b) Acquisition of a trade secret of another by a person who knows or has reason to know that the trade secret was acquired by improper means; or

(c) Disclosure or use of a trade secret of another without express or implied consent by a person who:

(1) Used improper means to acquire knowledge of the trade secret;⁷¹

⁶⁷ Conseco Fin. Servicing Corp. v. N. Am. Mortgage Co., 381 F.3d 811, 819 (8th Cir. 2004).

^{°°} Id.

⁶⁹ Clark v. Bunker, 453 F.2d 1006, 1010 (9th Cir.1972).

⁷⁰ NRS 600A.010; NRS 600A.030(2)

Each one of these definitions requires that the trade secret be gained through improper means. "Improper means" is defined as:

"(a) Theft; (b) Bribery; (c) Misrepresentation; (d) Willful breach or willful inducement of a breach of a duty to maintain secrecy; (e) Willful breach or willful inducement of a breach of a duty imposed by common law, statute, contract, license, protective order or other court or administrative order; and (f) Espionage through electronic or other means."⁷²

Likewise, the Restatement (Third) of Unfair Competition § 39, cmt. f., states: "When a defendant has engaged in egregious misconduct in order to acquire the information, the inference that the information is sufficiently inaccessible to qualify for protection as a trade secret is particularly strong."⁷³ Finally, the United States Supreme Court held that trade secret law "does not offer protection against discovery by fair and honest means," however it does protect "the holder of a trade secret against disclosure or use when the knowledge is gained, not by the owner's volition, but by some 'improper means."⁷⁴

Misappropriation is a vital part of any trade secret claim. In *Saturn Sys., Inc. v. Militare*, the Court held that under the Uniform Trade Secret Act, a claim for misappropriation of a trade secret requires proof of "acquisition of a trade secret of another by a person who knows or has reason to know that the trade secret was acquired by improper means" such as theft.⁷⁵ *DSMC, Inc. v. Convera Corp.*, also held that to "establish a trade secret misappropriation claim" under the Uniform Trade Secret Act, a plaintiff must "demonstrate (1) the existence of a trade secret; and (2) acquisition of the trade secret by improper means, or improper use or disclosure by one under

⁷¹ NRS 600A.030(2)

⁷² NRS 600A.030(1)

⁷³ Restatement (Third) of Unfair Competition § 39, cmt. f.

⁷⁴ Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 475-76 (1974).

⁷⁵ Saturn Sys., Inc. v. Militare, 252 P.3d 516, 525 (Colo. App. 2011).

a duty not to disclose⁷⁶ Multiple other courts who have adopted the Uniform Trade Secrets act have reached similar conclusions.⁷⁷

The confluence of misappropriation and secrecy is illustrated in *Reingold v. Swiftships*, *Inc.*⁷⁸ The Fifth Circuit held that a boat hull mold was entitled to protection as a trade secret under the Uniform Trade Secret Act. This ruling was based on the mold still being a secret even though defendant "could have reverse engineered a mold from an existing hull," because defendant did not create the infringing mold from an existing hull, but instead "misappropriated the trade secret" by improper means.⁷⁹ The parties to this action had entered into a contract that required payment each time the mold was used and notification of any adjustments made to the mold.⁸⁰ Swiftships began to use the mold to construct an order of hulls for an international client without paying or notifying Reingold.⁸¹ This breach of contract was held to be "inappropriate means" of appropriating the trade secret.⁸² The fact that the hull design could have been used legally if the terms of the contract were fallowed was immaterial.⁸³ The court stated that "protection will be accorded to a trade secret holder against disclosure or unauthorized use

⁷⁶ *DSMC, Inc. v. Convera Corp.*, 479 F. Supp. 2d 68, 77 (D.D.C. 2007).

⁷⁷ See also *Beard Research, Inc. v. Kates*, 8 A.3d 573, 589 (Del. Ch.) aff'd sub nom. *ASDI, Inc. v. Beard Research, Inc.*, 11 A.3d 749 (Del. 2010) (holding, under the Uniform Trade Secret Act, to "maintain a successful claim for misappropriation of trade secrets, a plaintiff must show both the existence of a trade secret and its misappropriation" through the acquisition of a trade secret of another by a person who knows or has reason to know that the trade secret was acquired by improper means"); *BP Chemicals Ltd. v. Jiangsu Sopo Corp.*, 285 F.3d 677, 683 (8th Cir. 2002) (holding that misappropriation of a trade secret is established by "(1) improper acquisition of a trade secret" such as by theft; "or (2) disclosure or use of a trade secret without consent"); *DTM Research, L.L.C. v. AT & T Corp.*, 245 F.3d 327, 332 (4th Cir. 2001)(holding under the Uniform Trade Secret act that a "misappropriation occurs when one acquires the secret information by improper means or discloses the secret information acquired by improper means"); *Smithfield Ham & Products Co. v. Portion Pac, Inc.*, 905 F. Supp. 346, 350 (E.D. Va. 1995) (holding Virginia"s Uniform Trade Secret Act "prohibits the improper acquisition of a trade secret, whether or not the secret is used").

⁷⁸ Reingold v. Swiftships, Inc., 126 F.3d 645, 650-52 (5th Cir. 1997).

⁷⁹ Id.

⁸⁰ Id.

⁸¹ Id.

⁸² Id.

⁸³ Id.

gained by improper means, even if others might have discovered the trade secret by legitimate means."⁸⁴

This holding is not unique. The fact that a trade secret can be discovered by experimentation or other fair and lawful means "does not deprive its owner of the right to protection from those who would secure possession of it by unfair means."⁸⁵ Likewise, stealing a formula is "evidence [that] supports a finding that [the trade secret] was not readily ascertainable" and therefore "deserves protection as a trade secret."⁸⁶

It is important to note that to be considered misappropriation, the action does not necessarily have to illegal. Returning to *E.I. DuPont DeNemours & Co. v. Christopher*, the Fifth Circuit held that "aerial photography of plant construction [to determine another's secret manufacturing process] is an improper means of obtaining another's trade secret..."⁸⁷ This court reached this holding even though the defendant "violated no government aviation standard, did not breach any confidential relation, and did not engage in any fraudulent or illegal conduct."⁸⁸ The Court did find however, that this conduct fell well "bellow the generally accepted standards of commercial morality and reasonable conduct."⁸⁹ This ruling was based on the premise that the court would not "require a person or corporation to take unreasonable precautions to prevent another from doing that which he ought not to do in the first place."⁹⁰ Put a different way, "thou shall not appropriate a trade secret through deviousness under circumstances in which countervailing defenses are not reasonably available."⁹¹

- ⁹⁰ *Id.* at 1017.
- ⁹¹ Id.

⁸⁴ *Id.* at 652.

⁸⁵ Smith v. Dravo Corp., 203 F.2d 369, 375 (7th Cir. 1953).

⁸⁶ DPT Labs., Ltd. v. Bath & Body Works, Inc., Case No. CIV.SA-98-CA-664-JWP, 1999 WL 33289709, at *5 (W.D. Tex. Dec. 20, 1999).

⁸⁷ E. I. duPont deNemours & Co. v. Christopher, 431 F.2d 1012, 1015 (5th Cir. 1970).

⁸⁸ Id.

⁸⁹ *Id.* at 1015-16.

Examining what happened in Reno, there is little doubt that the PARs in question where misappropriated through improper means. Upon investigation by Gaming Control officials, it became immediately clear that the Peppermill was conducting a systematic and purposeful effort to steal information from their competitors.⁹² As a result of these findings, the Peppermill was fined one million dollars by the Control Board which represented one of the largest fines ever assessed in Nevada up to this point. The more interesting question is not whether the PARs had been misappropriated, but if use is required for trade secrets to be misappropriated. If what happened in Reno was simply the obsessions of an over-eager employee that management was foolish enough to indulge, could it still be misappropriation?

Defendants often attempt to substitute a "use" analysis for misappropriation. They reason that if information is not used, then the misappropriation did not occur. While this may seem logical, this approach is not supported by established case law. In *Binary Semantics Ltd. v. Minitab, Inc.*, logic demanded that the Court find that a "theft of trade secrets necessarily implies that they will be used."⁹³ Likewise, in *RKI, Inc. v. Grimes*, the court held that use of trade secrets gained during the course of employment was inevitable when the employee changed jobs.⁹⁴ Whether it was proven or not, the former employee and his new employer "unlawfully misappropriated [his former employer's] trade secret information because it is inevitable [that the employee] will use the information he obtained."⁹⁵ The Court noted that "direct evidence of theft and use of trade secrets is often not available," and therefore "the plaintiff can rely on circumstantial evidence to prove misappropriation."⁹⁶ Applying this standard, the court

⁹² ¶17. Complaint, *NGCB v. Peppermill*, Case No. NCG-13-23.

⁹³ Binary Semantics Ltd. v. Minitab, Inc., Case No. CIV.A. 4:07-CV-1750, 2008 WL 763575, at *4 (M.D. Pa. Mar. 20, 2008)

⁹⁴ RKI, Inc. v. Grimes, 177 F. Supp. 2d 859, 875-76 (N.D. III. 2001).

⁹⁵Id.

⁹⁶ *Id.* at 876.

concluded, that the former employer had "proven by a preponderance of the evidence that [the former employee and his new employer had] misappropriated its trade secrets."⁹⁷ The Court also relied on circumstantial evidence in *Uhlig LLC v. Shirley*.⁹⁸ Even without presenting "much if any direct evidence of use of the compilation trade secrets," by proving that the employee took "confidential and trade secret information," the former employer provided "the jury with substantial evidence from which it could have determined that [the employee] actually used the information."^{99 100}

In *PepsiCo, Inc. v. Redmond*, the Seventh Circuit concluded that an employee "pursuing and accepting his new job" with a direct competitor was enough to conclude that the employee would "inevitability use" his knowledge to benefit his new employer.¹⁰¹ The Court reached this conclusion without any proof that the competitor had even stolen any trade secrets.¹⁰² The basis for this finding was practical in nature; the court held "unless [the employee] possessed an uncanny ability to compartmentalize information, he would necessarily be making decisions... by relying on his knowledge of his former employer's trade secrets."¹⁰³

Other Courts have taken a simpler approach. In *Saturn Sys., Inc. v. Militare*, the Colorado Court of Appeals interpreting Colorado's Uniform Trade Secret Act, held that no actual use of the stolen information was required.¹⁰⁴ The Plaintiff showed that the defendant "knowingly acquired password-protected information by improper means" even though defendant "did not

⁹⁷ *Id.* at 877-80.

⁹⁸ Uhlig LLC v. Shirley, Case No. 6:08-CV-01208-JMC, 2012 WL 2923242 (D.S.C. July 17, 2012).

⁹⁹ Id.

¹⁰⁰ See also *Frantz v. Johnson*, 116 Nev. 455, 469, 999 P.2d 351, 360 (2000) (holding that "circumstantial evidence" is "sufficient" to support finding that defendants "misappropriated trade secrets").

¹⁰¹ PepsiCo, Inc. v. Redmond, 54 F.3d 1262, 1270 (7th Cir. 1995)

¹⁰² Id.

¹⁰³ *Id.* at 1269.

 ¹⁰⁴ Saturn Sys., Inc. v. Militare, 252 P.3d 516, 525 (Colo. App. 2011). See also Dealertrack, Inc. v. Huber, 460 F. Supp. 2d 1177, 1184 (C.D. Cal. 2006).

utilize or print any information.¹⁰⁵ This conclusion was important because the Court held that ⁽ⁱ⁾ it is irrelevant whether [the Defendant] actually used [Plaintiff's] client and debtor information to compete against [the Plaintiff] because there is no requirement in [the Uniform Trade Secret Act] that there be actual use or commercial implementation of the misappropriated trade secret for damages to accrue.¹⁰⁶ Numerous other courts have come to the same conclusion. In doing so, they have held that an entity willing to employ improper means to obtain information will certainly use the information gained.¹⁰⁷ Other Courts have reached the same conclusion based only upon the lack of a "use" requirement in the Uniform Trade Secrets Act.¹⁰⁸ To date, no version of the Uniform Trade Secrets act has been adopted that has specifically required use.¹⁰⁹

Even if use of the trade secret was required, the facts and circumstances behind trade secret cases nearly always create the presumption of use regardless of what the defendant may claim. It is apparent from the gaming control board record that the information Ryan Torrs gathered was shared with Peppermill's top brass continuously and repeatedly. This sharing of information with the executives heavily implies that it was in fact at least reviewed by those persons. Otherwise, there would be no reason for them to continuously accept the information gathered.

This fact is important as unlike in *Uhlig* and *Minitab*, where the competitor could argue that they knew nothing of the misappropriation; the management of Peppermill admitted directing and condoning Ryan Torrs' actions. In the Stipulation for Settlement and Order with the State Gaming Control Board, the Peppermill admitted that "over a period of time beginning

¹⁰⁵ Id. at 525.

¹⁰⁶ Id.

¹⁰⁷ Ajuba Int'l, L.L.C. v. Saharia, 871 F. Supp. 2d 671, 691 (E.D. Mich. 2012).

¹⁰⁸ Insituform Technologies, Inc. v. Reynolds, Inc., 398 F. Supp. 2d 1058, 1063 (E.D. Mo. 2005). Smithfield Ham., 905 F. Supp. at 350.

¹⁰⁹ Nevada's Trade Secret Act allows for evidence of use or distribution.

in at least 2011" until "July 12, 2013," they "knew of, approved of, and directed" Ryan Tors to use "a slot machine 'reset' key to obtain theoretical hold percentage information from slot machines belonging to . . . the Grand Sierra Resort and Casino," along with "numerous" other casinos.¹¹⁰ There is also much more circumstantial evidence than in either *Uhlig* or *Minitab*. Likewise, this conduct in this case is far beyond the "lack of candor" the Seventh Circuit found troubling in *PepsiCo*.

The sheer number of times the data was stolen indicates that the Peppermill had a program and a use for the data. Torrs stated to gaming regulators that he had stolen PAR data from the GSR and other properties on multiple occasions over many years. If the data was taken out of mere curiosity and never used as could be argued, there is no reason to continuously steal it, risking your livelihood each time. Moreover, the nature of slot machine gambling and the data itself points towards its use. Casinos often portray themselves as the "loosest" in town. The data collected by Ryan Torrs allowed the Peppermill to do so without sacrificing any profits they did not need to. In essence, knowing this information eliminated the guess work from operating a slot floor. As the information stolen by Torrs would allow for the Peppermill to operate more efficiently, it illogical to assume they did not use the data to do so. In short, the GSR should be able to show that their PARs where clearly misappropriated through theft, that use is not required to show misappropriation, and that even if it was there exists ample direct and circumstantial evidence that it occurred.

INDEPENDENT VALUE OF PAR INFORMATION

Once secrecy has been established, the plaintiff must show that the information has actual or potential independent economic value that flows from not being generally known.¹¹¹ There

¹¹⁰ ¶1. Stipulation for Settlement and Order, *NGCB v. Peppermill*, Case No. NCG-13-23.

¹¹¹ Uniform Trade Secrets Act, 1985.

have been dozens of theories put forth by scholars as tests for "independent value." One of the more common theories is one of "positive value" to the secret holder. Some academics have gone as far as to declare that "positive value" to the holder of the trade secret is the first and most important characteristic of a trade secret.¹¹² This way of thinking is based on the assumption that positive value is what makes the difference between a trade secret and any other secret. As an example, a recipe for a popular soda has positive value to the corporation that produces the soda. Other secrets, such as a history of tax evasion by key executives, have no positive value. Both would be devastating if released to the public, but only one can be considered a trade secret.

As the embodiment of their strategic plans and decisions, PARs arguably have extraordinary positive value to the corporation. This importance would stem less from what the numbers were at any given time and more from the observable trends over time. These trends could be a kind of formula for success that competitors could easily copy once they had stolen it. Conversely, Peppermill's program of secretly gathering PAR information is a classic example of a secret that has no positive value. It was devastating to the company when it became public because of the punishment it brought, not because the conduct was no longer secret. This is the central difference between a secret that derives positive value from being secret and your average secret.

Other scholars argue that the value behind a trade secret must be objective and transferrable from one party to another.¹¹³ This means that a secret must have potential value to any party that misappropriates it. For example, if one firm develops a novel technique for manufacturing their product and another firm could utilize this information to streamline their own production it has objective transferrable value. The alternative is information that only has

¹¹² Eric E. Johnson, *Trade Secret Subject Matter*, 33:545 Hamline Law Review (2010).

¹¹³ *Id.* at 597.

subjective value. This type of information is only useful only to the party that possesses it and it cannot be a trade secret. Examples include a company's human resource records. These records may be very valuable to a company and its ongoing operations, but would not mean anything to a competitor. The value cannot transfer directly to others. The "aphorism that 'one man's trash is another man's treasure," perfectly describes subjective information.¹¹⁴ When dealing with trade secrets, one man's treasure must be another man's treasure.¹¹⁵

One could also argue that PARs are objective and transferrable as the misappropriating party could make immediate use of it as soon as they had the information in their possession. Conversely, you could also argue that PARs are a text book example of one man's trash being another's treasure. Even within the casino industry, some parties may be completely uninterested in their competitor's PARs and others, like the peppermill, are willing to go to great lengths to get them.

There are still other possible ways to approach the question of independent value. Some state that a trade secret must have emancipatability from the trade secret holder.¹¹⁶ This is similar to transferability and means that the information must have legs of its own outside of the creator.¹¹⁷ For example, a manufacturing process that is more efficient and cost effective than what currently exists would still have value if the company that created it went into bankruptcy tomorrow. It could be sold or licensed by whoever was left standing. Conversely, plans to roll out a new product might have strategic value to competitors, but it would be worthless if the company was forced to close and the product launch never happened.¹¹⁸ Spoilability is also

¹¹⁴ Id.

¹¹⁵ Id.

¹¹⁶ Id.

¹¹⁷ Id.

¹¹⁸ Id. at 568.

sometimes put forth as a measure of independent value.¹¹⁹ Simply put, if the information is spoiled by disclosure, then it could be considered a trade secret. The rationale behind this theory of independent value is direct tied to the secrecy analysis above. The strongest trade secrets would be subject to both emancipatability and spoilability.

Evaluated together, these tests weigh both for and against PARs as trade secrets. On the one hand, PARs cannot be emancipated from the property where they originate. If that property's doors close tomorrow, the PARs would be worthless. However, the PAR holder could counter by arguing that PARs are incredibly spoilable. Neither party can effectively argue these factors together and take advantage of the powerful one-two punch that they provide.

All of these theories work primarily in the pages of academic journals and are not discussed frequently in the common law. This makes their application difficult. Courts have however, employed a definition based approach to the words "independent economic value."¹²⁰ "Economic Value" is not a difficult term to define. A secret is worth what someone is willing to risk to obtain it. In this case, the Peppermill was willing to risk a great deal to obtain PARs from their competitors. They were willing to risk their gaming license and their entire operation to gain this information, so it clearly has economic value. The work "independent" is more interesting and less studied.

A few courts have summarily attached practical definitions to the word "independent" in an attempt to make its application easier. These have included the fact that someone would pay money to get the information,¹²¹ that the firm holding the information stands to lose money if the

¹¹⁹ Id. at 565.

¹²⁰ Id. at 569.

¹²¹ Editions Play Bac, S.A. v. Western Publ'g Co., 31 U.S.P.Q.2d 1338, 1342-43 (S.D.N.Y. 1993) (holding that the willingness of companies in the industry to pay for a license for the information was sufficient to raise an inference of independent economic value).

information is disclosed,¹²² that the information allows the firm having it to gain competitive advantage over firms not having it,¹²³ that the information's economic value (to the holding firm) comes from its secrecy,¹²⁴ and that the information took a substantial amount of time, effort, and/or money to develop.¹²⁵

Some academics have argued that the word "independent" should mean that the information has the same academic value to every firm in the industry for the same reason and that this value exists independently of the information's creator. ¹²⁶ This definition is effectively the "emancipatability and spoilability" combination test discussed above and has not yet been applied by any court. However, a single court has ruled that there is no trade secret when information is only useful to the Plaintiff.¹²⁷ While this is not exactly the same as the "emancipatability and spoilability" test, it is in the same ball park.

As this area of trade secret law is so unsettled and the possible tests the court could apply is so varied any determination of who should triumph between the Peppermill and GSR is pure speculation. It would most likely depend not upon the state of the law, but upon the particular judge, jury, or attorneys arguing the case on any given day. As such, this factor is less important than the others and rarely addressed in detail by the courts.

DAMAGES

Finally, the Plaintiff in any action for the misappropriation of trade secrets must establish damages. There are multiple ways and means that damages are evaluated and measured. The

¹²² Whyte v. Schlage Lock Co., 125 Cal. Rptr. 2d 277, 287 (Cal. Ct. App. 2002).

¹²³ *Religious Tech. Ctr., Church of Scientology Int'l, Inc. v. Scott*, 869 F.2d 1306, 1309-10 (9th Cir. 1989) (holding that religious material qualifies as a trade secret if it confers on its owner an economic advantage over competitors).

 ¹²⁴ Dodson Int'l. Parts, Inc. v. Altendorf, 347 F. Supp. 2d 997, 1010 (D. Kan. 2004) (applying Kansas law); Conseco Fin. Servicing Corp. v. N. Am. Mortg. Co., 381 F.3d 811, 818-19 (8th Cir. 2004) (applying Missouri law); Strategic Directions Grp., Inc. v. Bristol-Myers Squibb Co., 293 F.3d 1062, 1064 (8th Cir. 2002) (applying Minnesota law).
 ¹²⁵ Gates Rubber Co. v. Bando Chem. Indus., Ltd., 9 F.3d 823, 833 (10th Cir. 1993).

¹²⁶ Eric E. Johnson, *Trade Secret Subject Matter*, 33:545 Hamline Law Review (2010).

¹²⁷ Optic Graphics, Inc. v. Agee, 591 A.2d 578, 587 (Md. Ct. Spec. App. 1991).

Uniform Trade Secret act as adopted by Nevada allows for "damages caused by misappropriation [to] be measured by imposition of liability for a reasonable royalty for a misappropriator's unauthorized disclosure or use of a trade secret."¹²⁸ This approach has found support in multiple courts and is a concept appropriated from patent law.¹²⁹

In University Computing Co. v. Lykes-Youngstown Corp., the Seventh Circuit Court explained that the "reasonable royalty standard" measures "the value of the secret to the defendant" and not a more practical literal valuation that would be applied in other types of actions.¹³⁰ This case dealt with stolen computer tapes that contained a retail management program called AIMES III.¹³¹ This system was stolen by an employee as a joint venture failed who attempted unsuccessfully to find a buyer for it.¹³² Despite the fact that it was never sold, the Court still held that plaintiff was entitled to reasonable royalty for the program, even though "no actual profits exist by which to value the worth to the defendants of what they misappropriated."¹³³ The Court continued that "the lack of actual profits does not insulate the defendants from being obliged to pay for what they have wrongfully obtained in the mistaken belief their theft would benefit them."¹³⁴ The Court ultimately concluded "that the risk of defendants' venture, using the misappropriated secret, should not be placed on the injured plaintiff, but rather the defendants must bear the risk of failure themselves."¹³⁵

¹²⁸ NRS 601A.050(1)

¹²⁹ See also *Storagecraft Tech. Corp. v. Kirby*, 744 F.3d 1183, 1186 (10th Cir. 2014) (holding language in Uniform Trade Secret Act stating that "[i]n lieu of damages measured by any other methods," provides that reasonable royalty damages are a "general option"); Hallmark Cards, Inc. v. Monitor Clipper Partners, LLC, Case No. 08-0840-CV-W-ODS, 2012 WL 3047308, at *3 (W.D. Mo. July 25, 2012) (ruling, under the Uniform Trade Secret Act, that plaintiff may elect to recover the royalty value of its trade secrets in lieu of damages measured by both plaintiff's loss and defendant's unjust enrichment).

¹³⁰ University Computing Co. v. Lykes-Youngstown Corp., 504 F.2d 518 (5th Cir. 1974).

¹³¹ *Id.* at 529.

¹³² *Id.* at 534.

¹³³ *Id.* at 536-42. ¹³⁴ Id.

¹³⁵ Id.

The "reasonable royalty" approach has its roots in patent law and patent cases are instructive when evaluating damages for misappropriating trade secrets.¹³⁶ It is important because in patent law, when determining "reasonable royalties" actual profit earned after the infringement are only "among the factors to be considered in determining a reasonable royalty."¹³⁷ Further, "the law does not require that an infringer be permitted to make a profit," especially when the "royalty is a form of compulsory license, against the will and interest of the person wronged, in favor of the wrongdoer"¹³⁸

In *Storagecraft Tech. Corp. v. Kirby*, the tenth circuit affirmed a large jury verdict for the misappropriation of trade secrets.¹³⁹ This royalty award was upheld despite the fact that the Plaintiff did not show that the Defendant made commercial use of the trade secret.¹⁴⁰ The Court clarified that any requirement that a party prove commercial use to obtain damages calculated under a reasonable royalty theory were based on "the common law's requirements . . . well before the adoption of the Uniform Trade Secrets Act." This is because the Uniform Trade Secrets Act as adopted in every state provides for reasonable royalty damages for cases involving disclosure or use.¹⁴¹ This approach makes logical sense because of the inherent complexity involved in proving these damages when all of the evidence needed is in the hands of the Defendant.¹⁴² This fact alone "may be enough to explain why a state would wish to make reasonable royalty awards generally available to misappropriation plaintiffs" as "it is hardly

¹³⁶ See *Sw. Energy Prod. Co. v. Berry-Helfand*, 411 S.W.3d 581, 609 (Tex. App. 2013) (explaining the "use of a "reasonable royalty" in the calculation of damages in trade secret misappropriation cases was borrowed from patent infringement cases"); *Olson v. Nieman's, Ltd.*, 579 N.W.2d 299, 310 (Iowa 1998) (explaining that "[g]iven the difficulty of assessing damages in trade secret cases, courts have frequently analogized damages in a trade secret action to those measures of damages usually employed in patent infringement cases" including damages based on "reasonable royalties,").

¹³⁷ Monsanto Co. v. Ralph, 382 F.3d 1374, 1384 (Fed. Cir. 2004).

¹³⁸ Id.

¹³⁹ Storagecraft Tech. Corp. v. Kirby, 744 F.3d 1183, 1186-90 (10th Cir. 2014).

¹⁴⁰ Id.

¹⁴¹ *Id.* at 1187.

¹⁴² Id.

unknown for the law to resolve ambiguities about the appropriate quantity of damages against the proven wrongdoer rather than his victim."¹⁴³

Other courts have employed a slightly different method to determine reasonable royalties including a "hypothetical negotiation between a willing licensor and a willing licensee."¹⁴⁴ The court in *Fomson* explained that:

"[the] methodology encompasses fantasy and flexibility; fantasy because it requires a court to imagine what warring parties would have agreed to as willing negotiators; flexibility because it speaks of negotiations as of the time infringement began, yet permits and often requires a court to look to events and facts that occurred thereafter and that could not have been known to or predicted by the hypothesized negotiators."¹⁴⁵

It is important to note that trade secret cases are often not "willing licensor/willing licensee' negotiation... as the [plaintiff] does not wish to grant a license...¹⁴⁶ For that reason, the Sixth Circuit held the "setting of a reasonable royalty after infringement cannot be treated . . . as the equivalent of ordinary royalty negotiations among truly 'willing'" parties because that "view would constitute a pretense that the infringement never happened." This would also grant competitors the ability to effectively force a "compulsory license" on their competition where "the infringer would have nothing to lose, and everything to gain if he could count on paying only the normal, routine royalty non-infringers might have paid."¹⁴⁷ To prevent this from occurring, the courts have wide latitude to determine what a proper royalty should be. Courts often consider the "opinion testimony of qualified experts, the [plaintiff's] relationship with the infringer, and other factors that might warrant higher damages."¹⁴⁸

¹⁴³ *Id.* at 1186-87.

 ¹⁴⁴ Fromson v. W. Litho Plate & Supply Co., 853 F.2d 1568, 1574 (Fed. Cir. 1988), overruled on other grounds by Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp., 383 F.3d 1337 (Fed. Cir. 2004).
 ¹⁴⁵ Id. at 1575.

¹⁴⁶ *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1554 (Fed. Cir. 1995).

¹⁴⁷ Panduit Corp. v. Stahlin Bros. Fibre Works, 575 F.2d 1152, 1158 (6th Cir. 1978).

¹⁴⁸ Maxwell v. J. Baker, Inc., 86 F.3d 1098, 1109 (Fed. Cir. 1996).

This approach stems from the principle "that every case requires a flexible and imaginative approach to the problem of damages."¹⁴⁹ The overarching principle is that "[w]here the damages are uncertain, we do not feel that uncertainty should preclude recovery; the plaintiff should be afforded every opportunity to prove damages once the misappropriation is shown."¹⁵⁰ Other courts in other jurisdictions have also applied this same standard.¹⁵¹ Regardless of whatever other methods are used to determine damages, general royalties remains as a "general option" for the courts to pursue.¹⁵²

PAR data presents an interesting testing ground for the "reasonable royalty" theory of trade secret damages. On one hand, PARS have no obvious commercial value and so any theory of damages based upon royalties would seem unlikely to succeed. Experts could argue that PARs cannot be trade secrets and so it is not possible to sustain damages for their misappropriation. They could cite the fact that no one has ever released the PAR information of their casino floor to a competitor for any kind of royalty. This approach makes logical sense and would likely win the day in any other type of case. However, it is inconsistent with the established case law of trade secrets. It overlooks the fact that trade secret cases are inherently punitive in nature.

The other side could approach the "reasonable royalty" standard in a way that was more analogous with trade secret case law. As in *Storage Craft*, where the plaintiff was not required to show evidence of commercial use, it would be impractical to require the plaintiff in a trade secrets action to establish damages when all the evidence required to do so is held by the other side. This problem is addressed by the court's reasoning in *University Computing Co.*, where the

¹⁴⁹ Optic Graphics, Inc., 591 A.2d at 536-42

¹⁵⁰ *Id*. at 539.

¹⁵¹ See Hallmark Cards, Inc. v. Monitor Clipper Partners, LLC, Case No. 08-0840-CV-W-ODS, 2012 WL 3047308, at *3 (W.D. Mo. July 25, 2012) (ruling, under the Uniform Trade Secret Act, that plaintiff may elect to recover the royalty value of its trade secrets in lieu of damages measured by both plaintiff's loss and defendant's unjust enrichment). ¹⁵² Storagecraft Tech. Corp. v. Kirby, 744 F.3d 1183, 1186 (10th Cir. 2014).

Court pointed out that the "reasonable loyalty standard" meant the value of the trade secret to the defendant and not the plaintiff, effectively side stepping the issue entirely. Approaching the issue of damages from this direction allows the PAR holder to articulate the subjective worth of the information and does not require them to prove actual damages. Any other approach would allow a bad actor to hide behind the inherent difficulty of determining the financial value of information such as PARs.

Courts have also evaluated the value of trade secrets and damages based upon what a party is willing to risk to obtain the trade secret. In *AvidAir Helicopter Supply, Inc. v. Rolls-Royce Corp.*, the Eighth Circuit Court identified "repeated attempts" to secure plaintiff's trade secrets by improper or "reprehensible means" and held that they demonstrated the value of the trade secret to the infringing party.¹⁵³ This was one of the key factors that allowed the Court to uphold the jury's verdict for "\$350,000 in actual damages," as reasonable.¹⁵⁴ Other courts have also recently applied this same standard.¹⁵⁵

The Peppermill's actions themselves show the value of the information and thus the damages they should face. The Peppermill's system of electronic espionage could have cost them their gaming license and devastated their operations throughout the state. They could have potentially faced multiple law suits and possibly even criminal charges at both the state and federal level. It is fair to say that no reasonable person, let alone corporation, would risk these consequences if they did not stand to gain something of substantial value. Based upon this inherent value, a party could easily argue that it is entitled to damages for the misappropriation of its PARs.

¹⁵³ AvidAir Helicopter Supply, Inc. v. Rolls-Royce Corp., 663 F.3d 966, 973-74 (8th Cir. 2011).

¹⁵⁴ *Id*. at 971, 977

¹⁵⁵ See also *W. Plains, L.L.C. v. Retzlaff Grain Co. Inc.*, 927 F. Supp. 2d 776, 784-85 (D. Neb. 2013) (holding the improper methods "used by the Individual Defendants to take Confidential Information from [plaintiff] suggest that the information was valuable").

Other courts have applied still other "flexible and imaginative" approaches to determining damages. In Mid-Michigan Computer Sys., Inc. v. Marc Glassman, Inc., software used to maintain prescription and billing records for customers was licensed for use between the parties.¹⁵⁶ Part of this agreement included a "Source Code Agreement" that allowed access to the code behind the program in emergency situations.¹⁵⁷ Glassman, Inc. used this agreement to access the code, copy it, and create new software to replace what they had previously licensed.¹⁵⁸ When Mid-Michigan prevailed in court on their trade secret claims, they were granted damages based upon a liquidated damages clause in the contract.¹⁵⁹ The defendant argued that because the source code agreement wasn't breached it is not a measure of an accurate royalty. The Sixth Circuit held that even though this agreement was not breached, it still provided "a benchmark for estimating what the parties would have agreed to as a fair licensing price." Had it been unreasonable, they assumed that the parties would not have agreed to it.¹⁶⁰ The Court applied this novel approach because "the precise value of a trade secret may be difficult to determine."¹⁶¹ The overarching principle however, is that "by sanctioning the acquisition, use, and disclosure of another's valuable, proprietary information by improper means, trade secret law minimizes 'the inevitable cost to the basic decency of society when one . . . steals from another ... "162

Other less common methods of determining damages in trade secret cases include lost profits and unjust enrichment.¹⁶³ Lost profits can be a logical approach to formulating damages as it attempts to formulate the profits that would have been made if no misappropriation had

¹⁵⁶ Mid-Michigan Computer Sys., Inc. v. Marc Glassman, Inc., 416 F.3d 505 (6th Cir. 2005).

¹⁵⁷*Id*.

¹⁵⁸ Id.

¹⁵⁹Id.

¹⁶⁰ *Id.* at 512.

¹⁶¹ Id.

¹⁶² DVD Copy Control Ass'n, Inc. v. Bunner, 75 P.3d 1, 13 (Cal. 2003) quoting Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 487 (1974).

¹⁶³ Uniform Trade Secrets Act, 1985.

occurred.¹⁶⁴ In *Salsbury Laboratories v. Merieux Laboratories*, the Court took the sales made by the defendant and awarded the Plaintiff the profits they would have made if they had made the lost sales.¹⁶⁵ This approach can be difficult logistically as it is not always clear what lost profits would be when the misappropriated information is not a traditional trade secret.¹⁶⁶ Unjust enrichment is a simpler proposition for most courts and provides a remedy when lost profits would be impractical.¹⁶⁷ Neither of these approaches is logically applied to the misappropriation of PAR data and so they will not be discussed at length here.

CONCLUSION

After years of pleadings and motions for summary judgment, the Grand Sierra Resort and the Peppermill eventually met in court.¹⁶⁸ Ultimately, the jury was not convinced that theoretical hold percentages were trade secrets.¹⁶⁹ However, the GSR quickly appealed this decision based upon the issues throughout the litigation and the jury instructions given. This appeal is currently pending before the Nevada Supreme Court and presents a number of issues of first impression for the Court to decide regarding trade secret law in the state of Nevada. Based upon the case law and reasoning presented above, the Court should enshrine in Nevada law the following concepts:

Trade secret cases are highly fact specific and assumptions either way should not be made. Based upon these variable facts, a trade secret must not be ascertainable "quickly" or be so "self-revealing" to be ascertainable "at a glance." Whether a secret is reversed engineerable is immaterial to this determination unless the defendant claims to have actually reversed engineered

¹⁶⁴ *Pioneer Hi-Bred Int'l v. Holden Found. Seeds*, 35 F.3d 1226 (8th Cir. 1994).

¹⁶⁵ Salsbury Laboratories v. Merieux Laboratories, 735 F. Supp. 1555, 1573 (M.D. Ga. 1989).

¹⁶⁶ Michael A. Rosenhouse, Annotation, *Proper Measure and Elements of Damages for Misappropriation of Trade* Secret, 11 A.L.R.4th 12 (2010).

¹⁶⁷ Id.

 ¹⁶⁸ Jury Rules in Favor of Peppermill in Grand Sierra Resort Trade Secrets Case, Reno Gazette-Journal, January 27, 2016.
 ¹⁶⁹ Id

the trade secret instead of obtaining it improperly. Assuming these elements are met, the information must also be subject to common, reasonable security measures to protect the alleged trade secret.

When a trade secret is obtained by "theft, bribery, misrepresentation, willful breach or willful inducement of a breach of a duty to maintain secrecy; (e) Willful breach or willful inducement of a breach of a duty imposed by common law, statute, contract, license, protective order or other court or administrative order; and (f) Espionage through electronic or other means"¹⁷⁰ the fact finder should assume a rebuttable presumption that the information constitutes a trade secret and has been misappropriated. Cases should not end as soon as the misconduct is shown, but the presumption should be strong.

Next, the plaintiff should not be required to show that the defendant used the secret or gained financially from it when misappropriation has been established. Ruling otherwise would reward the misappropriator of the secret and place an unfair burden on the wronged party. For these same reasons, the plaintiff should only be required to show that the misappropriated trade secret has positive value to them. The trade secret obviously has value to the party who misappropriated it and so no more analysis should be required.

Finally, as trade secret cases are so fact specific, the finder of fact should be free to determine damages under any theory that is appropriate. This will allow a wide variety of theories to be considered by the judge or jury, for them to reach the most equitable results, and if necessary, take punitive action against the misappropriating party. Likewise, the defendant would still have the appellate courts to turn to for redress if the damages entered against them are unreasonable.

¹⁷⁰ NRS 600A.030(1).

Upon hearing the Jury Verdict, Bill Paganetti, Peppermill General Manager said to the media, "We are extremely pleased with the verdict. Once again, we express our apologies to the gaming community for our mistakes."¹⁷¹ As there was no affirmative guidance on the topic at hand in Nevada, a deliberate, multi-year effort to steal valuable information from competitors was reduced to a "mistake" made and was excused with a short apology. If juries are armed with proper instructions based on clear law, then they will be empowered and confident enough to return real verdicts. Without this adjustment to existing Nevada law, a company that was able to cheat their competitors will not be able to cheat the law. A corporation who acted as one of the largest slot cheats in Nevada history will not escape the consequences of their actions.

¹⁷¹ Jury Rules in Favor of Peppermill in Grand Sierra Resort Trade Secrets Case, Reno Gazette-Journal, January 27, 2016.