



## Kevin MULLALLY

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### ON SKILL-BASED GAMES

Nevada recently legalized the concept of skill-based wagering games. It is expected that this new wagering game-style will be quite popular and spread to other jurisdictions. Now begins the process of building the regulatory structures to ensure the security and integrity of the skill-based games that operators will want to bring to the market.

**Paul Jason, PGRI:** *Skill-based games would seem to represent a whole new layer of regulatory complexity. What are some of the issues as relates to ensuring the security and integrity of skill-based games?*

**Kevin Mullally:** At this point, GLI is playing a supportive role with regulators, helping them to sort through a lot of the issues with regard to the blending of two styles of gaming. We have a lot of experience in dealing with both. On one hand, we have random games like slots and Lottery. We have a deep understanding of all the regulatory issues relating to this game style. On the other hand, we have this new game style, and we are

now working with regulators to refine the methods for ensuring the integrity of skill-games. The operators also need to have a precise understanding of the odds and strategies to predict prize-payout return percentages. Most often, skill-games include an element of chance as well. So we are blending those two concepts. As you point out, skill games are being developed that will include game styles, game logic and components that nobody has seen before. We will need to develop technical standards and methodologies to test and vet the security of these new game styles. We are analyzing prototypes now to acquire the technical understanding that will enable us to then create a risk control model for the new game styles. This will be an ongoing iterative process. We provide information and advice to regulators based on our technical expertise and research, and they will make the policy decisions.

*The potential for cheating in skill-based games would seem to be greater than in random-based games of pure chance. How do you apply technical solutions to problems arising from human behavior that does not fit into the kind of algorithmic*

*modeling that work so well for random games of chance?*

**K. Mullally:** GLI is actively working with regulators to assist them as they develop the regulatory framework for these games. There are some preliminary versions of the regulations that allow for the establishment of an expected return based on optimal play that is based on a scientific and mathematical analysis of the device and the game. If there is a variance above a certain percentage or other kind of departure from the predicted range of outcomes, the operator is alerted and enabled to then either conduct an investigation or even shut down the game while they try to determine the cause of the unexpected behavior. It is important to provide transparency to the range of expected outcomes based on a mathematical model of the game design. That range is the baseline. With that knowledge he play can be monitored and deviation can be identified. The, regulators and operators are equipped with the information they need to assess different option and decide what to do about it.

The methods of assuring the integrity of the games has always needed to adapt

to changing conditions and risk profiles. This will be particularly important in the early stages of developing regulations for skill-based games. The people who attempt to cheat or otherwise take advantage of the system are constantly finding new ways to accomplish their objective. So we need to be constantly finding new ways to prevent them from accomplishing their objective.

*What kinds of issues are regulators having to think about as regards to skill-based games?*

**K. Mullally:** There will need to be risk-control systems to protect from cheating and to ensure player fairness. We need safeguards for players and operators alike, to ensure that the players are complying with the rules and that the game-play cannot be manipulated to give players an advantage, either against the House or against each other. For example, joysticks are precisely calibrated to function in a certain way. If the calibration for the joy-stick gets out of adjustment even by small amounts, that could lead to an unfair advantage or disadvantage for the player. There will need to be more robust controls to ensure that joysticks are calibrated properly. The technical solutions for operating a joy-stick that exist for recreational skill-games may be adequate for non-money-wagering applications, but wagering games will require a far more sophisticated level of protection.

*What are some skill-based design concepts that may challenge the ability of regulators to safeguard against cheating?*

**K. Mullally:** GLI steadfastly avoids advising on game design. However, I have observed that one of the challenges for the industry will be developing an optimum blend of skill and chance—something that gives the average player a reasonable expectation of some type of a

return. How does that objective get reconciled with the fact that players will all have varying degrees of skill?

Poker, for instance, represents a good balance between skill and chance. An average player has a chance to beat an above average player if the cards fall their way. The element of chance is an equalizer. The highly-skilled poker player also has the ability to apply their skills such that they acquire an advantage and will likely beat an average player over time. In Las Vegas poker rooms, or online poker rooms, players may try to avoid joining a game of professional poker players. But in regards to poker, there does not need to be regulatory controls applied because the element of chance mitigates the degree to which skill determines the outcome. New skill-based games that are designed with that kind of skill/chance balance may not need any more regulatory controls than poker. But there will be new skill-based games that won't have that equilibrium of skill mitigated by chance and will require additional regulatory layers to ensure that players do not have an unfair advantage or manipulate the outcomes of multi-player games. Of course, giving the players a fair chance to win is a market-driven necessity since the consumer do not want to play games that are perceived as unfair. Skill-based games will need to have the tools to create a fair opportunity in order to build a following with the broader market of recreational gamers. Players trust games like Lottery and slots because they understand there are controls giving everyone an equal chance to win the random-based games.

*Golf has a handicap system that theoretically levels the playing field enabling players of varying skill levels to compete directly with each other. Tennis has a tiered system that theoretically puts people of similar skill*

*levels together in the same field to compete with each other. But some people “sandbag,” deliberately playing worse when the stakes are small so that they will perform better against their handicap or the field when the stakes are big. It seems to me that the challenge of preventing that kind of manipulation will be problematic, won't it?*

**K. Mullally:** Yes, of course. That is just another area where regulators will need to work through issues and create some reasonable system of controls. The process of developing these regulations to provide consistency and safeguards protecting the consumer will be a learning experience for everyone. It will be iterative and evolve and span across multiple jurisdictions. The appropriate levels of risk control will be a matter of some debate, but regulators will likely begin with higher levels of control to minimize the potential for faults or vulnerabilities in the early stages of this process. Hopefully, the process will be collaborative in an effort to reach some level of standardization in risk control measures. If the regulatory effort is too diverse, it increases the likelihood that some markets will fail to develop in this area.

*And combining social-gaming with skill and wagering could make things even more complicated. Like, turning the old Zynga-style games into money games would seem to open up a whole new can of worms.*

**K. Mullally:** You mentioned handicapping. I think there will be lots of different ways to deal with these issues. For instance, players could create their own pools, choosing their own group of players, be it friends or people of similar skill levels. Especially when the stakes are higher, players may want to know they can trust the other players. With some games, the play-style may be more focused on the social aspect, playing with people you know and are part of your social net-

work. Other players will want to play in the larger universe of players because the liquidity will be higher, making the prize pools bigger. Many of these issues just need to be ironed out in the market-place.

*Can we expect that the ingenuity of operators and game designers will come up with lots of wild ideas that we aren't even thinking about right now?*

**K. Mullally:** They already are. In fact, one of the most critical aspects of this whole picture is to be able to implement whatever risk-control structures that the regulators develop within a commercially reasonable timeframe. Commercial viability depends on getting to market quickly, so GLI's mission is to eliminate bottlenecks when it comes to risk-control structures and approval processes. GLI has geared up to make sure we have the bandwidth to move new products through the pipeline quickly. The process will be thorough, accurate and effective, but speed and efficiency are also priorities.

*That's should be a most interesting challenge. We can't predict the future, but we can expect that it is at least possible that growth in new game categories like skill-based could be explosive.*

**K. Mullally:** GLI's role is two-fold. One, we apply our technical expertise to arm regulators with all the information they need to make policy decisions. Then, once those policy decisions are made, GLI provides a very efficient process for the manufacturers to be able to demonstrate compliance.

And yes, the evidence suggests that skill-based games will be very popular. We can see the popularity of skill-based games in the non-monitized world or the semi-monitized world. We can expect that skill-based games that add a wagering component will also be popular. GLI's

clients are actively working to understand the risk-control requirements and how to implement them.

## ON FANTASY SPORTS

Fantasy Sports has exploded into a multi-billion dollar industry. Many of the big corporate interests that are involved in pro-sports are invested in this new industry (Time Warner/CNN in FanDuel, Disney/ESPN in DraftKings. Fantasy Sports has). Investors and official sponsors include major sports groups like the MLB, NFL, and NHL, as well as some of the owners of the teams.

Some 56 million people have played Fantasy Sports in North America. According to STATS, Inc., 10 million of those are teenagers. All other forms of gambling are prohibited by U.S. federal law, until and unless the individual state decides to legalize and regulate it. The UIGEA exempted Fantasy Sports from that fundamental policy based on the idea that it is a skill-game. So, unregulated Fantasy Sports is legal until a state government steps in to regulate it or prohibit it, as some states have done. How might this all unfold? What are the regulatory issues going forward?

**Paul Jason:** *Is there any kind of regulatory oversight being applied to Fantasy sports, anything being done to ensure the integrity of the games?*

**K. Mullally:** I'm not aware of any legal regulatory structures that exist right now. Some operators are attempting to provide transparency to the levels of skill

that are involved in their games. GLI has been involved in analyzing some of those games to provide a mathematical analysis that give the operators, policy-makers, and players information and insight into the underlying dynamics of the Fantasy Sports games. But GLI is not a law firm. We're not a government. So we don't issue legal opinions or rulings. We try to provide the information necessary for regulators to understand the operation of the games, measure the risks, and measure the costs and feasibility of controlling those risks. In the case of Fantasy Sports, there is no regulator at this point, so we're just responding to requests from some operators trying to provide analyses and give the various parties involved in the discussion some good scientific-based evidence on which to make good decisions.

*Are your regulator clients asking you to study Fantasy Sports to determine how or whether to regulate it?*

**K. Mullally:** We've been asked to analyze the mathematical probabilities of the games to discern the difference, if there is a difference, and if there is, how much is the difference between the outcomes of a skilled player versus a random or a less skilled player. GLI's role is limited and focused—it is to provide scientific analysis. There may be a lot of legal and social issues that provide very fruitful ground for debate. But it is actually part of my job to scrutinize every report that GLI puts out to ensure that we stay within our role of providing scientific analysis and not migrating into areas that are the responsibility of others, like regulators and policy-makers. GLI does not opine, for instance, on whether something is legal or not legal.

*Does the skilled and knowledgeable Fantasy Sports player perform better than the less skilled player?*

**K. Mullally:** GLI has issued a general white paper on this issue that's available on our website, [www.gaminglabs.com](http://www.gaminglabs.com), that speaks to this. GLI's mathematical analyses show that a skilled player can do considerably better than a non-skilled player. GLI is in a good position to address questions based on science and evidence, but not how policy-makers and regulators should interpret and apply the information we provide.

One of the challenges of a regulator is that there will always be a tension between the need for market-driven innovation, the need to protect the player, the need for security and integrity in the games, and the need to serve a variety of policy-making interests. Regulators are constantly trying to seek a balance that

meets this diverse set of objectives.

*Everyone is asking whether Fantasy Sports should be considered gambling, and to tax and regulate it as gambling.*

**K. Mullally:** I'm not saying that people don't ask us to make that kind of a call, to opine on whether Fantasy Sports fits into the classical definitions of "gambling," or whether it is legal or not. Our answer is always the same. We provide the analyses and testing that we hope will inform the decision-making process. But the classification of Fantasy Sports as gambling or not is not in GLI's purview. That is for regulators and policy-makers.

*The very definition of "gambling" (Chance + Consideration/Wager + Prize) is becoming more and more fungible, isn't it?*

**K. Mullally:** For one thing, that definition does not speak precisely to the degrees of chance required to constitute "gambling." And that is just one aspect in the way the definitions will need to be updated. And the definitions will vary from state to state, jurisdiction to jurisdiction.

When you're practicing law, you're always applying facts to law. Facts can definitely change. And bad facts usually result in bad law. GLI's mission is to prevent that from happening by providing some clarity with regard to the facts so that people aren't making assumptions, aren't leaving information out, aren't applying bad facts. We try to assure that the facts are good, that the scientific analyses are based on good facts, and ensure that aspect of policy-making is sound and accurate. ■