FANTASY SPORTS

A GLI® WHITE PAPER

GAMING LABORATORIES INTERNATIONAL®

FANTASY SPORTS

"Fantasy Sports" is the name for a category of games that derives its outcomes based on real-life sporting events, wherein fantasy players select a roster of athletes to fill a fantasy team. The performance of a fantasy roster is determined by the actual performance of the athletes over a pre-established time period.

Regulatory Environment

While the Unlawful Internet Gambling Enforcement Act of 2006 (UIGEA) regulates and restricts many forms of online gambling fantasy sports games are specifically exempted from UIGEA, provided they meet certain requirements. Among these requirements are:

- the fantasy team cannot be based on the current membership of an actual team,
- the prizes must be fixed and advertised in advance,
- the outcomes must reflect the knowledge and skill of the participants,
- the outcomes must be determined predominantly by individual statistical results of athlete performance in multiple sporting events,
- the outcomes cannot be based on team scores, and
- the outcomes cannot be solely based on a single individual performance in a single sporting event.

Most of these requirements are easily demonstrable directly from game rules; however, the knowledge and skill requirement is one that is potentially subject to interpretation. To satisfy the needs of fantasy sports vendors to provide categorization of their game within the fantasy sports clause of UIGEA, Gaming Laboratories International (GLI®) has developed a testing methodology that can demonstrate the role of skill and knowledge in a gaming context.

Skills and Chance Background

Taken generally, games can be categorized as:

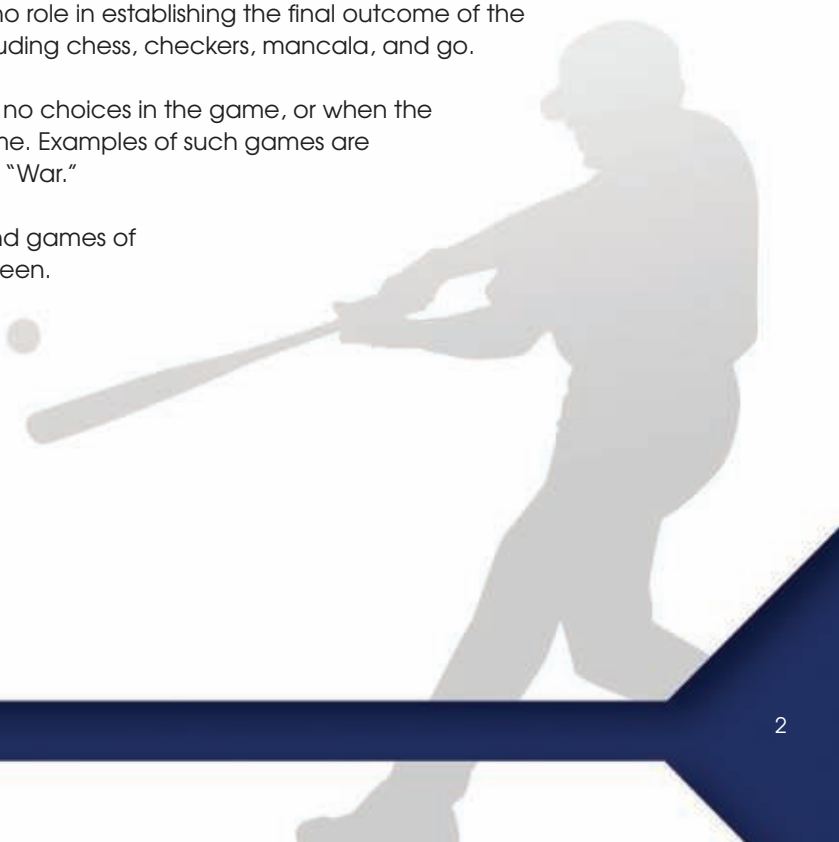
- games of pure skill,
- games of pure chance, and
- games of skill and chance.

A game of pure skill is one in which chance or luck has no role in establishing the final outcome of the game. Many classic games fall under this category, including chess, checkers, mancala, and go.

Games of pure chance are those in which players have no choices in the game, or when the choices have no meaningful impact on the final outcome. Examples of such games are snakes and ladders, craps, roulette, and the card game "War."

While there are many examples of games of pure skill and games of pure chance, a very large class falls somewhere in between. A game of both skill and chance may have chance elements that dominate the outcome at times. Additionally, the outcome of players of equal skill can be truly random; however, the skill element manifests itself over the long-term with players of unequal skill.

Examples of such mixed games include backgammon, poker, blackjack, and bridge.



Most fantasy sports games would fall under this category as well.

Fantasy Testing Overview

GLI has pioneered testing of Fantasy Sports applications.

For fantasy sports clients seeking supporting evidence that their games reflect knowledge and skill of their fantasy players, GLI developed a testing service intended to demonstrate exactly that. This testing does not depend on historical performance of actual fantasy players and can be applied to new and old game concepts alike, allowing for such analysis to take place before new games even come to market.

To establish the necessary contrast in performance between players of varying skill, GLI programs two types of simulated players, referred to simply as unskilled and skilled. These simulated players play against each other, using historical sports data for the sport in question.

Unskilled players have no knowledge or skill about the game beyond knowing the basic game rules. They select their rosters at random, within the rules established by the game, and potentially satisfying certain reasonableness criteria such as exceeding a usage threshold of the salary cap budget.

NOTE

For many games it is possible to play counter-optimally, or worse than random. While it is possible to establish the element of skill using counter-optimal play methods instead of random play methods, GLI has elected to use random play as a more realistic reflection of play in the absence of "skill and knowledge."

Skilled players select their rosters based only on information which would be publicly available at the time of roster selection. Skilled players select their choices algorithmically. Using a programmed algorithm that can only look at past data helps to assure the integrity of our testing process. It is impossible for the programmed skilled player to "look ahead" and make decisions based on information it should not have. Demonstrating that kind of independence would be impossible for rosters selected manually over historical data. The algorithms used are written and customized to the game format by GLI mathematical analysts. In addition, the algorithms are not tuned or trained on the same historical period used for analysis.

NOTE

The simulated skilled player does not claim to provide and is not intended to provide optimal play - that challenge remains to be pursued by the millions of players out there - it is intended to provide a measurable contrast against the unskilled players.

Testing Results

Testing a game in this way has the potential to generate one of two possible conclusions:

- The skilled player outperforms the unskilled players, earning more points or winning more match-ups, and the degree of out-performance is measurable and demonstrable to be statistically significant. This clearly indicates that the outcomes of the game reflect the knowledge and skill of the participants.

- The skilled player either does not outperform the unskilled players, or not by a large enough degree that statistical significance can be established. This outcome admits three possible interpretations - either the game does not have a measurable skill element, the employed algorithm is not sufficiently skilled, or the amount of data is insufficient to demonstrate a clear difference in skill.

It is important to recognize that a negative testing result, if encountered, would be inconclusive, and would not necessarily be evidence that the game has no skill element; however, to date, GLI has been successful with every fantasy sports analysis in establishing clearly the role of skill in determining final outcome.

At the conclusion of testing, the client receives an official report from GLI, summarizing the rules of the game format, the testing conducted, and the results of the testing. GLI's reports do not provide a summary legal opinion on the game's classification under UIGEA, but they do provide a clear summary of the technical testing results which are intended to examine the role of knowledge and skill.

Submitting to GLI

Clients interested in contracting GLI for such an analysis should be prepared to provide detailed and complete rules of the game format, listing exactly how the athlete statistics are used to determine the final outcome of the fantasy game. GLI would be pleased to provide a no cost or obligation proposal for services.

Before analysis can begin in earnest, the client will also be expected to provide official historical data of all statistics used in the fantasy game. The amount of data needs to be sufficient so that a skill algorithm will have enough data to make good decisions. For most sports, GLI recommends two successive historical seasons of data: The first season is used to inform the choices of the skilled player, and the actual simulation is conducted over the second season.

NOTE *For sports with very few sporting events in the season, such as football, three seasons' data may be required.*

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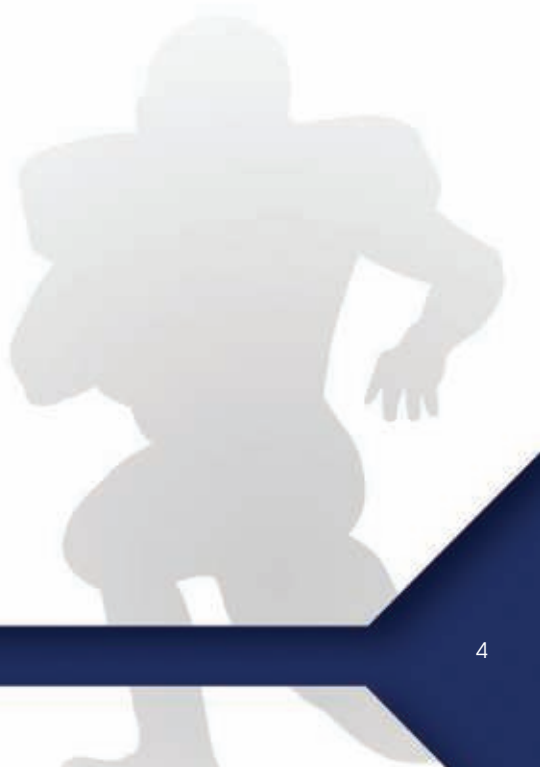

About GLI

Gaming Laboratories International (GLI®) is the world's leading land-based, iGaming and lottery testing laboratory.

For more than 25 years, Gaming Laboratories International, LLC has continuously delivered THE best quality land-based and iGaming testing and consulting services with supreme accuracy while reducing time to market.

With 21 laboratory locations spread across Africa, Asia, Australia, the Caribbean, Europe, North America and South America, GLI is the only global organization of its kind to hold U.S. and international accreditations for compliance with ISO/IEC 17025, 17020, and 17065 standards for technical competence in the gaming, wagering and lottery industries.

FOR MORE INFORMATION

For more information on the services offered by GLI please visit www.gaminglabs.com.

REQUEST A CALL

To request a call or to ask a question, contact one of GLI's North American office locations listed. A GLI representative will respond to your inquiry within two business days.

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