

## January Newsletter

We are pleased to announce that our Founder and CEO, Gene Gioia, has been nominated by the European Poker Awards committee for the Rob Gardner "Innovator of the Year" award at the upcoming awards ceremony to be held at the Aviation Club de France, on January 15, 2009. We view this as a strong indication of how this system is seen by the almost 40 industry experts and professionals who make up the nominating committee for the European Poker Awards.

We are sure many of you were hoping to see us open the poker room January 1. We have been working hard to meet that objective. Unfortunately, we did not meet that goal, but we are moving towards an opening. We are making changes to the Real Deal website and hope to have a new page in place in the next 7 days. We are working hard to fulfill the commitment of our founder to bring a real game of poker to online players. That commitment is not taken lightly and we plan on bringing it to you as soon as possible. When the new Real Deal Site is up, you will be given the ability to sign up and set up a user name and password. We encourage all who are interested to create an account. Those who do will be entered into a promotion that will include funding of \$50,000 into players accounts when we open. More details will be available later. You can help us by signing up, telling your friends, and getting the word out. We are working on an affiliate program and will have more details when the new web page is in place. That should be in the next week to ten days. Thank you for your patience and you will like what you see when we get the site open and the games going. Following up on our Founders editorial last month, Brendan Fogarty, Director of Information Technology for Gioia Systems, offers the following technical perspective on Random Number Generators.

### **The online bad beat phenomena....Technically Possible? A technical perspective by Brendan Fogarty, Director of Information Technology for Gioia Systems.**

Last month Gene Gioia wrote about a theory of his regarding bad beats. While he was writing this article Gene asked me "Was this technically possible?" and what would be involved in creating such process. In the past I have looked at software for a number of reasons and purposes and the common thread in all of them is...They can all be altered or modified to suit a purpose. But first we must take a hard look at what a Random Number Generator truly is and what is the outcome of that process.

There is hundreds of Random Number Generators (RNG) used by countless computer programs around the globe. Some of you may know that an RNG is built into Microsoft Excel and is used by many analysts as a database tool. But let's be honest here, there is no such thing as a computerized RNG. The real name is Pseudorandom Number Generator (PNG). Why is this so? The answer is that although the technology of the computer has marched onward and upward, the theoretical underpinning of today's machines still rests on the model of computation set out in 1936 by the British mathematician Alan Turing. He invented the concept of a "Turing machine", a sort of simplified calculator that can model any computer you like, but whose relatively transparent workings expose the inherent theoretical limitations of what any (real) computer can compute. If no Turing machine can solve a problem, then that problem is not computable at all.



Secondly, lack of predictability. This is inherently a question mark when it comes to online poker. If the poker room owns the software and the hardware and has written the software they must know what the SEED is. The seed is the key to the formula. If you know the formula and the key, any computer can figure out what the outcome of a step within a program will be. An example of this is the old Algebra trick:

Think of a number, double it, add X to it, half it, subtract your original number. The answer is and will always be **one half of X**.

Thirdly, is to look at the opening statement “When designing the formula, the idea is for it to produce a string of numbers that would look random to anyone who did not know what the formula is.” **Guess what, they know the formula!!**

Now here comes the really scary part of the entire process....They could know the values of the cards!! This is exactly what the Ultimatebet.com scandal was based upon. Someone wrote a program that could look at the FACE VALUE of the cards. This is another topic for another newsletter but it should begin to raise some questions.

Back to the original question asked “Was this technically possible?” and the answer is of course. Given that a common computer can execute a teraflop (trillions of calculations a second) and if you know what the RNG formula is and you know what the seed to the formula is and you know the number of players sitting at a table.....than the answer is always **one half of X!**