

# Online poker RNG...

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I'm hoping someone(s) on here will be kind enough to help ease my mind (or, for that matter, to verify my reasons for concern!) And I should say that, while I'm a good poker player, I'm only a marginal student of mathematics and computing, so keep that in mind, please, as you answer this question, but:

Is it possible that, as I'm playing online, any of the other players are cheating by way of predicting the order of the cards in the "shuffled" deck?

A few (some math, some poker) truths to keep in mind as you answer:

1. Many sites use an RNG algorithm based on  $2^{32}$ . Isn't that pretty easily susceptible to brute-force attacks from someone who has a program relying on distributed computing?
2. In the most popular type of online poker (Texas Hold 'Em), there are four rounds of betting, and the most important three rounds come AFTER (a) each player gets two (face-down) cards and (b) three face-up cards are dealt on the table -- SO, if the cheateer is, say, the third player to be dealt cards at a table of ten players, then he will know the 3rd and 13th cards (i.e. the two cards he's been dealt) as well as the 21st, 22nd and 23rd cards (the three dealt face-up immediately following the two distributed to each player).

So, I guess my question is: how easily would someone be able -- either by brute-force run-through of all possible combinations of "deck arrangements" with those 5 cards in those specific spots, or by some sort of reverse-engineering, or whatever -- to conclude the sequence of cards in the deck (which, of course, would give him knowledge of everyone's cards, as well as the two cards left to be dealt)?

And, for that matter, a related question: there's a piece of software currently on the market (Check out [pokerrng.com](http://pokerrng.com).) which claims that, if a player enters into the software the details of a few thousands recently dealt hands, the software will "synch" with the poker system's RNG well enough to predict three of the five cards (not suits, but values, which is enough to be dangerous!) left to be dealt! Is this even plausible? Do I need to be afraid of this type of thing?

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Anything online has inherent pitfalls, and cheating is -- both online and offline -- a fact of life, but there's a certain level of security I'd like, and I wonder if I'm jumping at shadows or rightly concerned...

Any thoughts would be appreciated!

Thanks,

Gerry

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