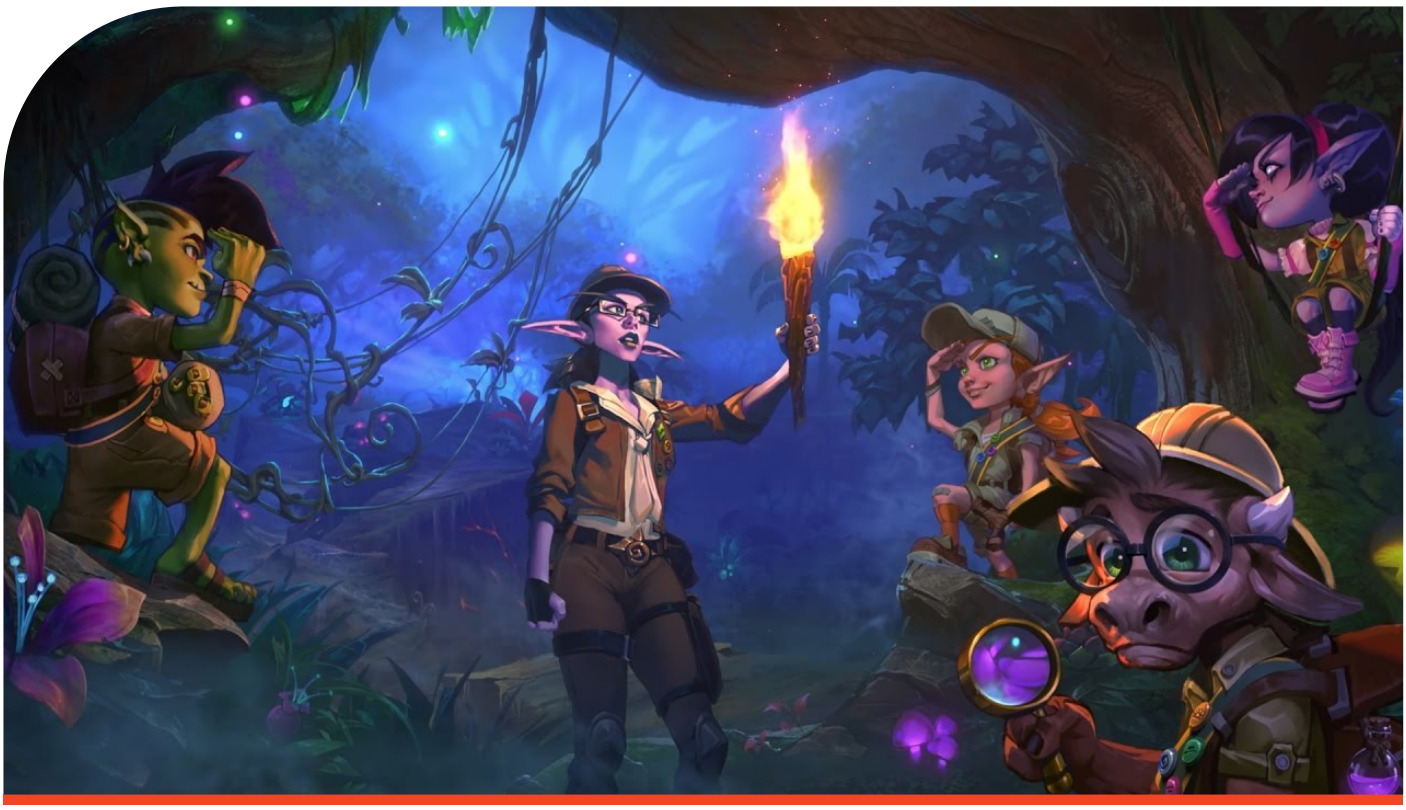


A Billion-Armed Bandit

Opinion

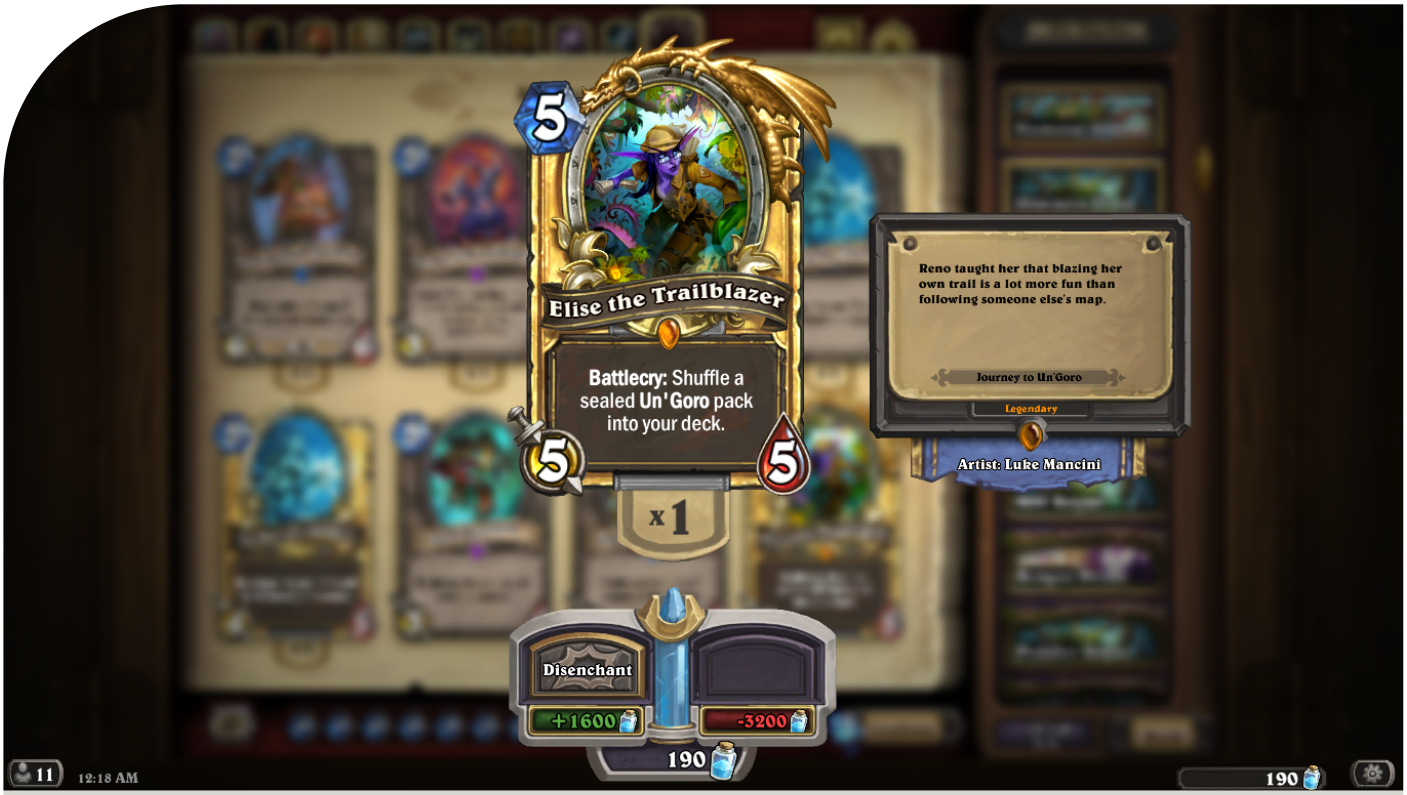
July 18, 2017

by Eron Rauch

As *Hearthstone* trends increasingly toward randomnness, players are getting left out in the cold.

I hadn't played *Hearthstone* in a long while. But the recent series of Blizzard cross-game promos for *Overwatch*'s one-year anniversary sucked me back in.

I knew there would be a steep learning curve, since I had no ideas what cards were in the recent expansions. I had also certainly heard the community grumbling about the increased randomness. Even then, I was still flabbergasted when my fuzzy Druid opponent played a new card, Elise the Trailblazer. It shuffled a card into their deck which, when drawn, lets them draw five more cards—in the form an entire Un'goro expansion pack.



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This might seem like just another normal part of dealing with card games—whether it is blackjack or *Magic: The Gathering,* trying to calculate and play the odds is a huge part of these type of games of chance. But what shocked me was the unfathomably wide spread of possible outcomes from this new card. When they draw the pack, in addition to what was already in their hand, the Druid can be holding any combination of five of 135 cards.

While that might not seem particularly extreme, when you run some napkin-math there are some 94,000,000 different combinations of cards that my opponent could draw (given the caveat that at least one has to be epic or legendary rarity). Whether or not those cards were good or bad for my opponent was really up to luck, since they could be expensive or cheap, powerful or weak, synergize or contradict their deck, be perfect or detrimental for the board state.

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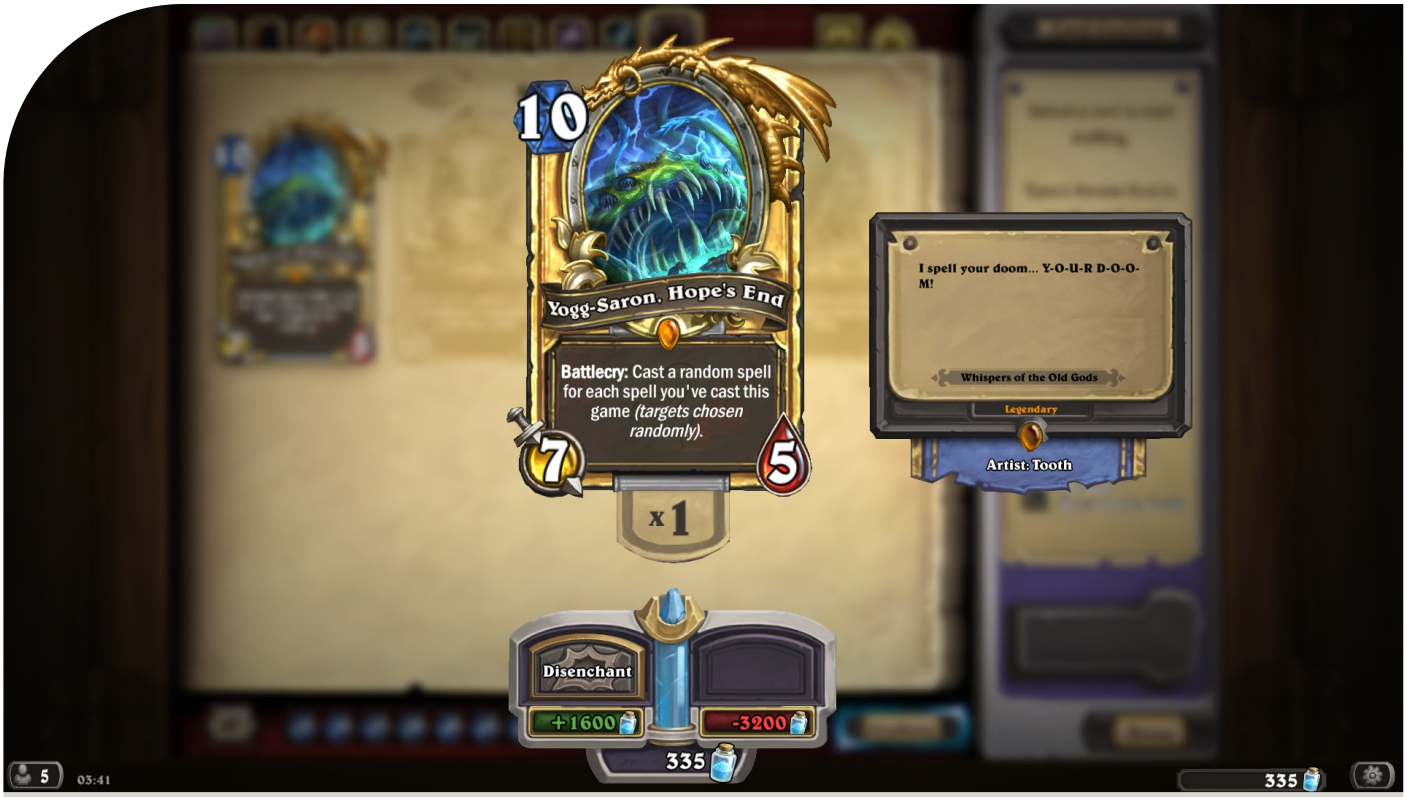
The important part is that even if my factorial math is slightly funky (thanks art school), there are so many potential outcomes that I, the opposing player, have no absolutely damn clue what cards they could have.

At this point, even assuming I make no mistakes piloting my deck, my success or failure has essentially become reactively random: I can't make any informed decisions about what I should play during my turn and there are very few ways to interact with a player's board during their turn in *Hearthstone*. I may as well have been playing a *Game of Thrones*-themed slot machine, my opponent's unpredictability had rendered that match into a virtual black box.

Even at the highest end of professional play, *Hearthstone* has slid toward astronomical spreads of chance. One of the most popular and successful decks in global competitive tournaments is Evolve Shaman. This deck centers around a combination of punny Dopplegangster and the eponymous Evolve, which at its core lets you spend 7 mana to get three random 7-mana minions.

Basically, the deck works because you turn cheap small stuff into cheap big stuff. But the specific outcomes are incredibly random. There are 47 options for 7-cost minions, so that means about 100,000 different combinations from the primary combo alone (with the assumption position matters). Let's not forget that you're likely to have other minions on board. Which leads to the added amusement that your Evolve plus your built-in hero power totems means you'll have a 1 in 83 chance to pull the loathed Doomsayer, which annihilates all minions, destroying your main victory condition and costing you the game.



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For another extreme example, many high-profile Mage and Druid decks run a minion called Yogg-Saron, Hope's End. When you play Yogg, it casts a random spell with a random target for every spell you already cast in the game. Given there are about 130 spells in the game and at minimum three targets, assuming just three spells were played before Yogg drops, and that it and the players are the only targets, you have roughly 59,000,000 outcomes. That already well exceeds our human capacity to predict – it's even beyond what any one person could experience in a whole lifetime.

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Above that threshold, which is highly likely given Yogg decks historically run lots of cheap spells and that card only gets played late when targets abound, only a computer could really comprehend those odds in a meaningful way. When Yogg comes down, maybe you kill your opponent, maybe you blow yourself up. Maybe you have a bunch of minions that get hit with buffs, maybe the spells fizzle because they have no targets. Maybe Yogg nukes itself with the first random spell and nothing else happens. But whatever the outcome, the game is so clearly determined by the computer's random number generator that individual players no longer have any reasonable claim of agency.

The experience of the rest of the 70 million players who aren't competing in the highly rarified professional *Hearthstone* circuit is even more vastly unpredictable, since the unknowable factors compound well beyond the outcomes of specific cards. Pro players almost all use the same half-dozen finely tuned "meta" decks, publicly announce their specific deck lists at the start of a tournament, resolve outcomes playing sets of three, five, and seven games (often with a losers' bracket), against a small group of other famous players whose tendencies and tricks are familiar. But if I were to click play right now, I would get paired with an unknown opponent of random skill (since smurf and troll accounts are rife), playing any combination of 30 cards from the almost 2000 in the standard set, for a one-off match. Win or lose, the next click of "Play" sets up another equally unknowable match.

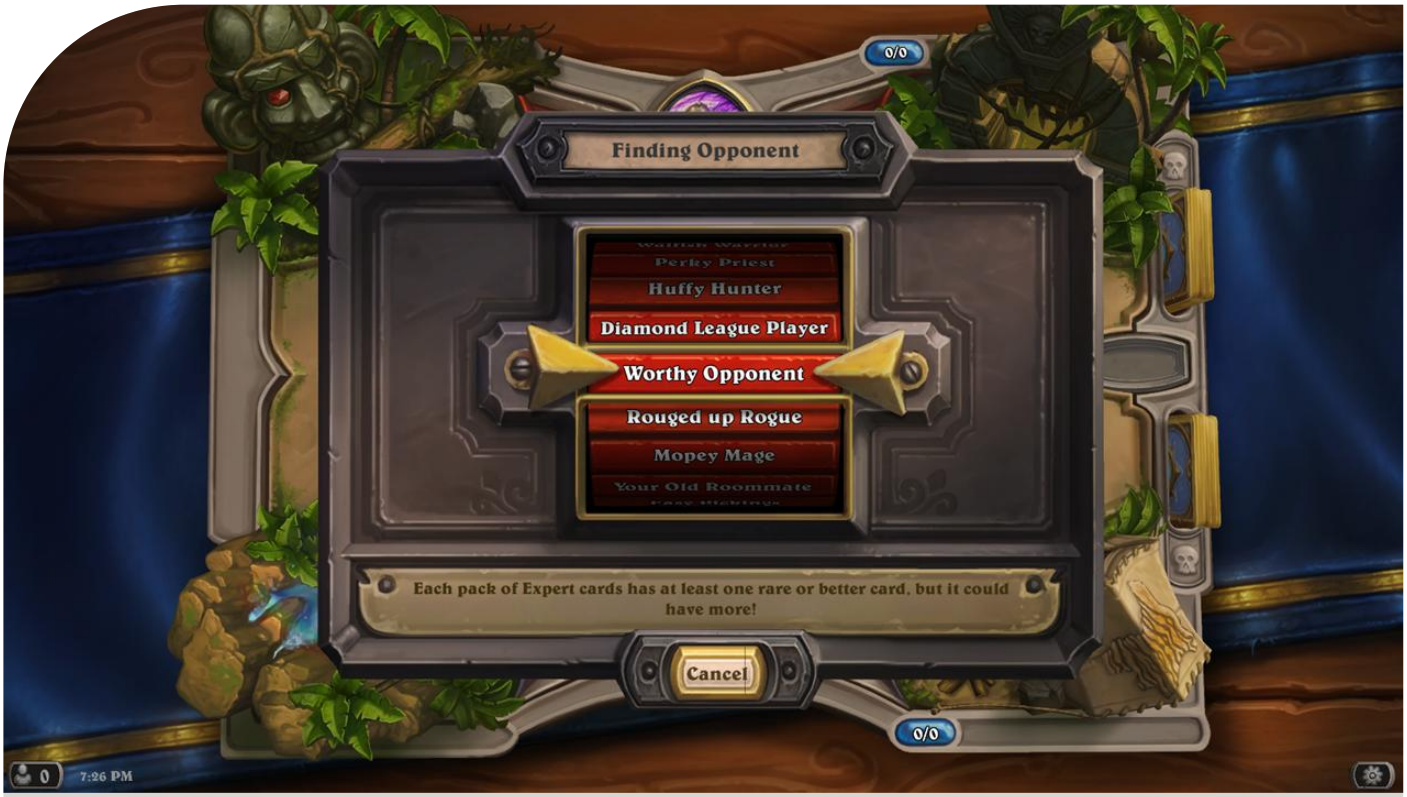
ZOOM

This sense of disconnection creates the feeling that wins and losses are meaningless. Sure, across enough thousands of professional games, maybe there are palpable trends, but at an ordinary player level, any given match just starts to feel like an intangible coin flip. This has long been regular complaint about *Hearthstone* and other online collectable card games built on a freemium model. Hell, its a big part of the reason I've quit multiple times.

That said, I suspect that the growing public clamor comes from the visibly vast scale and potency of these new high risk cards. Having a flying squid monster splatter an impossibly random set of spells to determine the outcome of a game brushes aside our sense of having any meaningful participation in the game's outcome. Standing by the sidelines, we're forced to question if our perception of the game matches up with how the game plays itself.

From this disoriented perspective, we can see glimpses of what lurks behind the scenes of the digital sounds of the cozy inn and rendered special effects of the fake cards. What we see is a shadowy computational shibboleth. As the hum of the server farms comes into focus, as those racks of computers calculate odds that humans can't fathom and tell us whether we won or lost,

we see the troubling vision the game might only be mimicking interactivity once we click play. The implication here is that players might not even be necessary.



ZOOM

This is maybe most clearly symbolized when you first start a match of *Hearthstone*. A wheel labeled "Finding Opponent" spins around, its face littered with possible opponent types. "Easy Pickings," "Your Old Roommate," "Coffee Addict," and even "StarCraft Pro" all whiz by. It's all a sham though—you always land on "Worthy Opponent." This is just a bit of fun while you're paired up with someone based on the server's secret algorithm.

There have been a few late nights where I was left wondering if I, or most *Hearthstone* fans, could even tell if their eventual opponents were real people. Outside of the Legendary and pro community who all hang out together, would any of us be able to tell if "Jake1337" or "DragonMom" were just ghosts of some top secret Blizzard deep-learning AI making weird Priest decks and spamming "Threaten!" until we squelch them?

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From there, I got wondering about my, and probably a lot of player's specific circumstances of playing: Do I associate these vast chance spreads with loneliness because I play *Hearthstone*

huddled in front of my PC, often late at night while my neighbors, girlfriend, friends, and even cat are snoring away? Does the unknowability of outcomes mean that I'm basically just playing a slot machine with a billion enticing arms—certainly flashy, and seemingly impressively loaded with potential interactivity, but with a core experience that still comes down to a single input gesture, play, with winning and losing determined by random numbers?

Blizzard, like the house in Vegas, obviously benefits from having a bunch of people sitting in polite silence, forever living in perpetual hope of beating the odds—that the next flop is 21, the next pull is three cherries, the next evolve pulls a taunt minion, the next Yogg Fireballs to face. All the while pumping ever more money into the company, one spin, one arena ticket, one pack at a time. But I don't feel like videogame fans imagine ourselves as slot-jockeys. I don't even know if that's how most videogame companies imagine their products. We've just kind of slid that way because, for some reason, that has started to feel natural.

One night, in the midst of a huff about some particularly frustrating randomized outcome, I mis-clicked and hit a button I hadn't noticed before. It must have been added at some point since I last quit. When I read the text, it was asking me if I wanted to join a local Fireside Gathering, which is Blizzard's term for local physical gatherings in the spirit of BarCrafts-meets-*Pokemon-Go* meet-ups.

A BarCraft gathering in Irvine, CA. Photo: Carlton Beener.

Suddenly I felt a bit of melancholic nostalgia for the old BarCrafts, where *StarCraft* players would take over local bars and pubs (left) for an evening to watch their favorite esports teams. I was a crappy *StarCraft* player, but my love for the game was fueled by these in-person meetings, where I could go and pound pints of beer, watch pro games, and talk with other players. BarCCarfts were full of unique and interesting stories, talk about the meta and history, the scene, about life (we had a lot of conversations about how *Photoshop* and *StarCraft* had similar skill sets), and being part of a community of other passionate players.

As I reminisced, I realized that this new "Join Fireside Gathering" button might be the subtle but potent inverse of these new spectacular-but-unpredictable cards.

Let me put this in a little bit more context: I am part of a very specific American generational space that occupies the blurry boundary between Gen-X and Millennial. I didn't have the internet as a child, but I was an early adopter in my teens. I both associate computer games with sitting by yourself and getting lost in the wilds of *Ultima*, but also with the rise of MMOs and LAN esports. I'm from a place somewhere between using clunky, low-res monitors and happily spamming Instagram posts of screenshots from my HD phone games. Playing *Hearthstone* in its 2017 iteration maybe feels so profoundly confusing to me because it really puts the myths and realities of those two visions for how we are going to embody games—vast computational splendor in solitude and digitally connected communities—into relief against each other.

ZOOM A typical Fireside Gathering. More and smaller screens than a BarCraft, but the atmosphere is much the same. (Photo: Blizzard.)

In a world that feels like it is designed to game us, to operate beyond our comprehension for the purposes of large companies, it can often feel like our actions don't matter. We're just pulling the lever of an increasingly flashy slot machine, knowing full well the house always wins.

But that's only the case in isolation—those actions are transformed into stories, into myths, into laughing fits by our relationships and communities. From this perspective, *Hearthstone*'s very unpredictability can be considered a big part of why it is so popular to watch on streaming platforms like Twitch. It becomes less a game of chance than a machine that creates random improv theater prompts.

I know that's not efficient for the companies racing to meet their quarterly profit predictions. But as people, we know that what makes these competitive and social esports games potent and meaningful, even the really random things, is the community of other specific, real, players.

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The recent outcry against the increasing randomization isn't a cry against chance itself—it's a cry against a computational technology that makes us feel small, lonely, and exploited. But in the case of Fireside Gatherings, these technologies can also be a great mechanism to get us out of our own houses and habits, and meet new and interesting people through our hobby. Technology can calculate a google worth of possible outcomes for Yogg for us to boggle at in isolation. Hope's End indeed. But these same technologies can also be used to reclaim and re-personalize the stories of videogames from the vast faceless depths of server farms, odds spreads, and content mills.

I think that is ultimately why these relatively incremental changes to the scale of chance in *Hearthstone* are so contentious to its community. It forces us to come to terms with how we—as specific people, not as a averaged data point or generalized demographic—are being asked to inhabit a role we call "player." Is that role simply an abstracted, exhausting position performed for us by some shiny math on a computer far away? Or is the role of player an active role where we can work with videogames and information technology to help us expand our perspective, engage with other people, and explore our vast world?

Eron Rauch is a writer and photographer based in Los Angeles.

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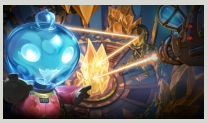

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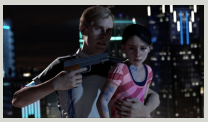

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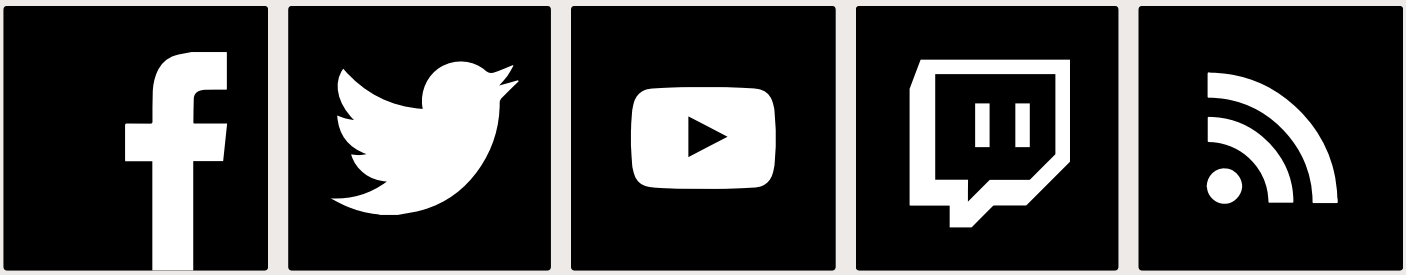

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