Breakthrough Game Design

Since the launch of TRIZmeta last month, we've been embarked on a tour of the game industry. Main conclusion: there are a lot of games. And the industry is a lot like every other one in that most attempts to create something new end in failure. Most new games don't turn into all-time classics. If I had to place a bet, I'd say the success ratio was significantly lower than in analogous entertainment sectors like film or literature. Lots of game-players seem to accumulate enormous collections of games, the large majority of which, if I can believe what people say about their collections on social media, are destined to spend their life on a shelf. Maybe this fact helps explain the connected fact – based on what I see in the Twittersphere – that there seem to be as many 'game designers' as there are 'game-players'.

From where I sit, I'd say there are two overwhelming reasons for the poor track record of the games industry:

1) No-one appears to have connected to the Hero's Journey findings of Joseph Campbell. Games, like films and literature, are only successful if they follow certain 'meta-'principles.
2) Perhaps building on 1), few if any of the game designers I've encountered seem to have any kind of appreciation of the importance of contradiction-solving. Look at almost any new game and there's been a massive emphasis on features rather than benefits, on rules to enforce trade-offs rather than try and challenge them. As a result, everyone seems stuck in largely the same paradigms.

We designed TRIZmeta first and foremost to help designers successfully break trade-offs in real-world projects and challenges. We chose games as the focus largely *because* they possess the characteristic of fixed rules that the TRIZmeta rule-breaking provocations could be applied to. We didn't think that game designers might be part of our target audience. Call that lack of forethought. Game designers are ultimately classic rule-makers. Rule-makers I now see that are caught in the middle of an enormous chicken-and-egg challenge in which everyone is designing the same basic games because everyone is using the same basic rules. Do that long enough and everyone converges on the same basic solution, where the only differences between one game and the next is the shape of the pieces and the number of sides on the dice.

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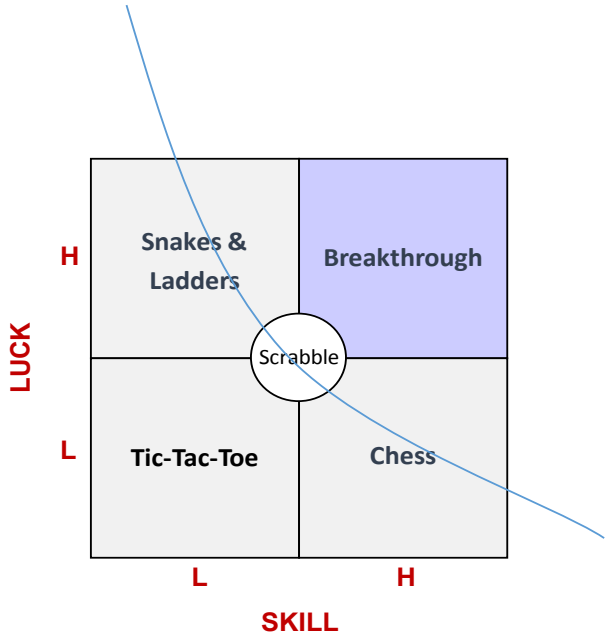
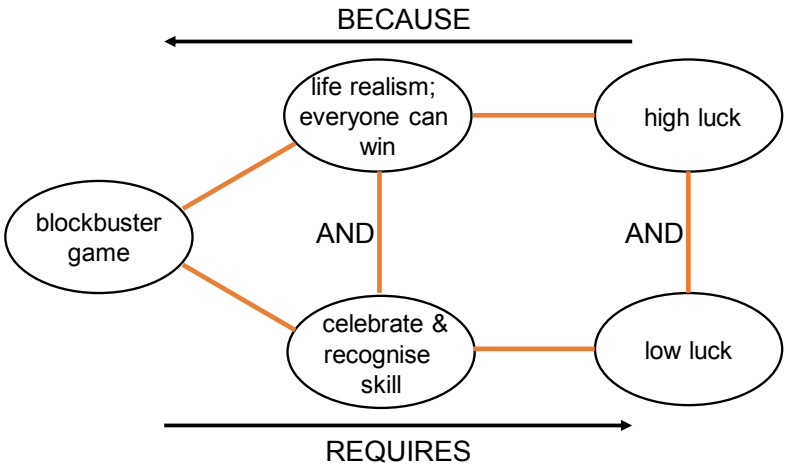
Breakthrough anything requires the identification and resolution of at least one contradiction. Some of the biggest breakthrough opportunities happen when we uncover contradictions that are so pervasive they've become invisible to everyone involved.

Therein lies one of my advantages as an outsider. Aside from a very short spell in the school chess club when I was eleven, I'm borderline game-allergic. On the other hand, one of my favourite life games is one I call 'Contradiction Radar'. My innovation senses are highly tuned to hunt out interesting contradictions. When I started to apply this radar to the games industry, one particular contradiction (opportunity) struck me very early. It's a contradiction centred around luck. Look at just about any game and players are forced into a trade-off choice between luck and skill. Something like this:



When selecting a game to play, the players effectively have to make a choice somewhere along the skill-luck spectrum. If I'm feeling particularly smart today, I might choose something like chess, which is nearly all about skill and contains almost no element of luck. If on the other hand, I've had a tough day, I might opt for something more like Snakes and Ladders. Or Solitaire. Something that I can blame on Lady Luck rather than my lack of competence should I somehow manage to lose.

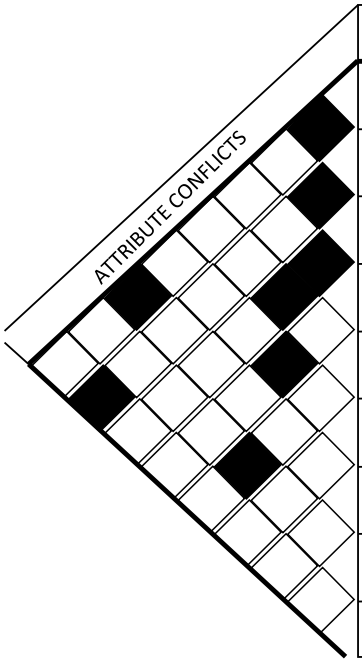
It's a contradiction we might map like this:



If I was a game designer looking to design a breakthrough game, I'd be far better off trying to create a solution that gave players the best of both worlds, rather than playing on the luck-or-skill spectrum that every other game sits.

Achieving such both/and solutions is what TRIZ is all about. Once I've found a good contradiction like this one, TRIZ tells us there are only 40 possible ways to design our way to a breakthrough. Make that fifty-two ways if you're using TRIZmeta. Plus, because it's a meta-game, you could use the cards in conjunction with any existing game and re-design that game to solve the contradiction. In TRIZmeta world there's no reason why players couldn't re-configure chess to incorporate an element of luck, or to re-think Snakes & Ladders to mean that it acquired the need to apply some actual thinking if a player is to win.

In many ways, finding the solution, thanks to TRIZmeta and the TRIZ Principles is the easy bit. The more difficult part is identifying the hidden contradictions. Here's a starter for ten via my radar and the TRIZ Ideal Final Attribute template:



ATTRIBUTE	CUSTOMER A IFR	CUSTOMER B IFR	PROVIDER IFR
Duration	seconds	infinite	longer
Learning Curve	nil	nil	acceptable
Skill	none	high	don't care
Luck	none	high	don't care
Players	1	infinite	higher
Jeopardy	none	white-knuckle	don't care
Action	passive	adrenaline	don't care
Teamwork	none	all	team
Outcomes	infinite	single	simplest

A few that appear to me to be potentially important ones:

- Some people want to play alone, others want a social experience
- The more people the game requires, the more difficult it is to recruit, but the better the social experience potentially becomes.
- Some people are more skilled than others. Finding a player with a similar skill level can be hard, so how to even up the odds of winning or losing?
- People want to be able to play as quickly as possible without a protracted (or any) learning curve, but the more instant the game is, the less likely it is to be one that delivers a wide range of outcomes and is therefore unlikely to be one that people come back to.
- Sometimes I want action; sometimes I want something more passive.
- Sometimes during the game I want to dynamically vary the level of luck or skill ratio.
- Sometimes I want to be part of a team; sometimes I want to be by myself.
- Some players like the adrenaline rush that accompanies high amounts of jeopardy; others will not.
- A game with a high number of possible outcomes (Carcassonne for example) is good for future play desirability, but some times it is nice to know that we got the

‘right answer’, which in turn demands few or maybe only one possible outcome (Mousetrap, Kerplunk, etc).

One thing I am certain about is that anyone that successfully resolves any of these contradictions (or any other ones I haven’t had the patience to list), stands a fair chance they’ve just created some kind of breakthrough game. Call that a call to arms. Or challenge.