

Foresight Breakthroughs to Cures Game Report

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Background

The Institute for the Future (ITF) teamed with the Myelin Repair Foundation, funded by the Robert Wood Johnson Foundation to host a game with this title:

How would you advise the President to reinvent the process of medical discovery?

The game was introduced with a video of a United States President asking for ideas to accelerate the discovery of a cure for a rare and dangerous neurodegenerative disease. The question was posed as a *quest* and participants (players), using avatars (with assumed or real names—I chose “Gardener”) began the task of proposing and debating answers.

Along the way, the game poses more-refined questions such as “What New Technology Could Play the Biggest Role?” which provoked new responses.

The game, I believe, is an instance of an IBIS¹ conversation. Users are given *game cards* to play. Each game card is color coded against one of four types of game moves:

- Play Momentum—a kind of “yes and...” card
- Play Antagonist—which reads “Disagree. What might happen instead?”
- Play Adaptation—a kind of “yes but...” card
- Play Investigation—a card for asking questions

Opening moves are made with one of two kinds of cards:

- Positive Imagination—where one proposes a positive position
- Dark Imagination—where one proposes stumbling blocks to any position given the question

The game board is shown in Figure 1. The left two columns reflect opening positions. To create a position, click on either of the two column headers, then fill in the form. All cards are *tweets*, 140-character entries. Growing conversation trees—branching from opening moves—are called *builds*. Column three shows *all* builds currently active and the right-most column shows the player’s builds.

¹ IBIS: Issue-based information systems. Start here: <http://compendium.open.ac.uk/>

The screenshot shows the Foresight Engine game board. At the top, there's a navigation bar with links for HOME, ABOUT, BLOG, FAQ & HELP, and HOW TO PLAY. A welcome message for 'Gardener' is visible. The main title asks, 'How would you advise the President to reinvent the process of medical discovery?'. Below this, there are buttons for 'DETAILS' and 'PLAY CARD'. A 'GAME BLOG' section says 'Keep the game alive.' and includes 'SLIDE' controls. A search bar is on the right. The main area is a grid of cards, each with a category, a tweet snippet, and a player's name. On the right, there's a 'YOUR POSITION' table and 'TRENDING #TAGS'.

Rank	Player Name	Points
1	Gardener	425855
2	Adalene	358931
3	Burgundian	107328
4	edudkin	54855
5	kingjacob	31136
6	Isotope	20588

Figure 1. The Game Board

A game move is made by clicking on any card—the entire tweet is a hyperlink. A small link at the bottom of a card takes you the profile of that player. Figure 2 illustrates the game move opportunity when one selects a particular card. The card shown is the author’s first game move, in which the suggestion is to build brain trusts through online gaming.

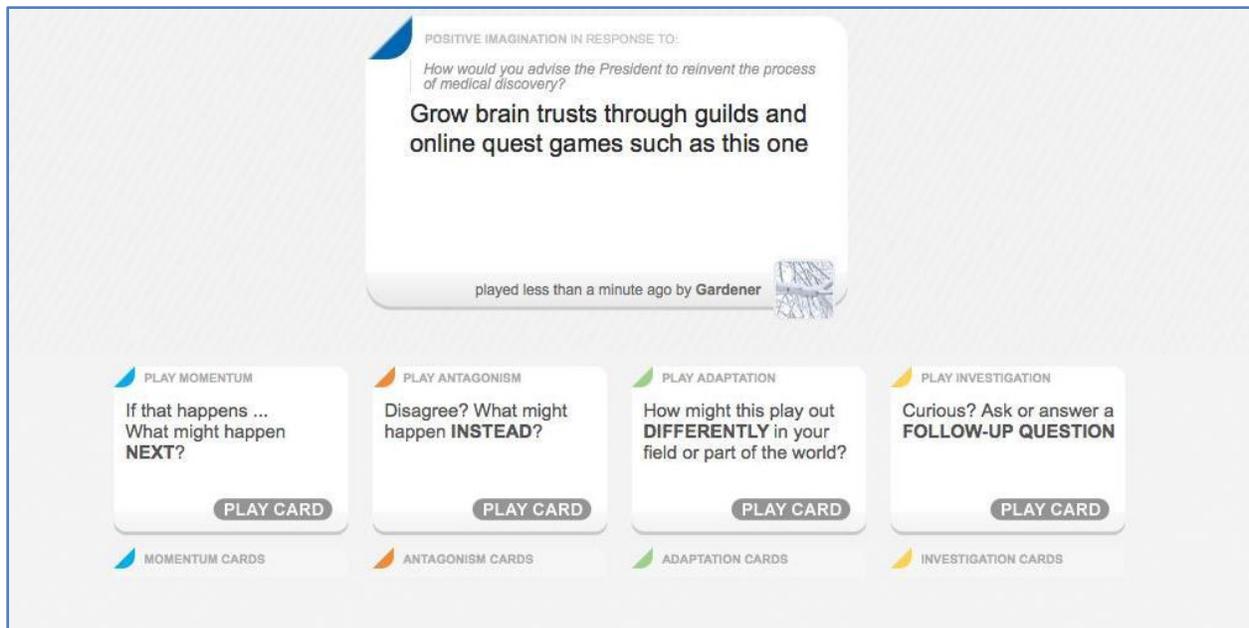


Figure 2. A Game Move Opportunity

To make a move on that card, one selects from among the four card types.

Scoring contributions remains a kind of black box. It is clear that a point is given for each card played. But that does not explain the outcomes. Outside the game, there are *game runners* (undefined at the moment) who make comments. The primary comment that seems to add points is this: "A game runner has marked this card as Super Interesting". That adds an unknown but possibly enormous value to the card.

Along the way, critics make choices that result in *awards*. I was the first recipient, receiving the *Hawking Award* with this statement:

"The Hawking award is given to ideas that have the clearest sense of the very big picture. Gardener's idea "Along similar lines, consider mitigation of the "secrecy" that lies behind the quest for a Nobel prize" gets to the problem of incentives in academia and the lack of transparency in how ideas are peer-reviewed and how scientists are selected for high-prestige awards like the Nobel Prize."

There is no way, at this time, to tell what impact that has on scoring, but the suspicion is that it is enormous. See comments below.

Comments

When one player won the *Macarthur Prize* for answering one of my questions, I asked him, in game, if he would share the winnings with me. Such is the nature of socializing in a game like this one.

The overall experience is one of complete surprise. When you sign up, you are asked to make a prediction for a disease that will find a cure by 2020. Doing so, right or wrong, gets you a starting count

of 10 points. By the time I actually started playing, I was in 69th position with several players over 100 points. The game, at that point, already seemed daunting. My opening move got me a few points. Rapid game play seemed to gain me points, from the tens to the hundreds, moving up in rank into the 20's. Then, in a sudden move, I was awarded the Hawking Award, my points jumped into the thousands, and I was now in third place. Soon, I would be in the 100k point range, and ranked number one. That rank never changed, but one player blossomed from not on the board to second place in a blink. Scary game.

Some observations: Many players used question cards to answer questions. They appeared to “stay in color” rather than attempt to match card with intent. It was easy to spot players entering the game and tossing out first moves that already existed. It's easy to speculate that many people playing that game paid little, if any, attention to flows elsewhere in the game, striking their own tree branch as if it was the only such branch in the game. The game provided a search box which, if one types in ‘knowledge garden’ takes them to every game card played with that term. A few people just asked “what's a knowledge garden?” I see those sorts of behaviors as common to people new to structured conversations in a research setting; opportunities for learning.

Where, precisely, will the results of that game go? No clue. It ended less than two hours before this writing; we will have to update this paragraph in later drafts.

Why did I play the game? Precisely because it was a golden opportunity to try many of the ideas I've been learning and cooking, and to do so in a professionally-crafted game environment. The production values in the IFTF project are very good.

Game Play Analysis

My work with Martin Radley on a Massive Online Game, called *GetTheIssues*, suggests, by way of contrast to the Foresight game, two kinds of online structured conversation games, for which I have coined the Twitter hashtag #ogtm (online games that matter).

- Open conversations—Foresight's game engine supports wide-open response from individuals—which could entail groups of people collaborating through a lone avatar
- Guild-based conversations—deliberate formation of guilds to foster role-playing (mastering certain and different skills), evolving game move strategy together, and making game moves as if an individual—terrific opportunities for classrooms

My own view is that guild-based collaboration is potentially a way forward in research and I did not hesitate to say so in many of my game cards. I chose the avatar Gardener for a reason.

I believe that, in the game just played, where there was no option for *details* (expansion on the card's assertion), 140 characters is far too few. It forced many of us to make repeated cards, using “more...” at the end to serve as a visual hint of more to come. I also believe that a game such as this requires a details section to expand on ideas. A counter argument to that belief is an obvious one: breaking an assertion up into more tweets means additional addressable units in play. There is merit to that argument; still, I think details are necessary.

Game Strategies

The Foresight game reveals player strategy as illustrated in Figure 3. The figure is that of relative use of each of the different playing cards. From the figure, it is clear that I made few opening moves, and spent more time as a *momentum* and *investigation* player, with some amount of “yes but..” *adaptive* moves. I made zero dark imagination moves (the blip is an artifact), but did make one *antagonism* move (its absence as a blip might be an error in the presentation engine).



Figure 3. User Profile Strengths

In terms of strategy, the approach I took was to use early moves to plant the seed that the best approach to accelerating the discovery of cures would accrue through absolute devotion to collaboration. I used knowledge gardening as a vehicle, and hammered that away. Most of my huge point gains appeared during times where I was using hyperlinks back to my central thesis cards as momentum response to game moves by others². A second seed I planted was the need for a paradigm shift in business models, from pure market-forced competition to one of a mixed competition-collaboration model. I tossed in *chaordic* common³s as an illustrative teaser.

I believe that it pays to use the investigation card frequently. My lone *disagree* card would much better have been played as an investigation to force the other player to respond to that which was disagreeable. First order strategy says this: you get at least one point for the move, no matter what it is. Following that, there is the stochastic process in which, if you simply disagree, you might be ignored; if you question, you might also be ignored. My inclination is to think that questions appear to lead to more points due to a continuing conversation. In an example of using investigation, one game move started with “Make people ...” to which I responded with the question “How do you make people do anything?” which got an immediate and very thoughtful response that “make people” was a poor choice of words,

² I look forward to analysis by game designers at IFTF on how game moves were really judged

³ Chaordic: <http://www.chaordic.org/>

with a much better assertion following. That I got to thank the player for the enlightened response meant I got yet another point. (Duh!)

The strategy of driving a stake in the ground early, then hammering away at it (a “one pony show”) seemed to work in the case of an *open conversation* architecture. A weak intuition, whether it is appropriate to guild-based game play, is that it is worth trying. Different guilds might drive different stakes in the ground, all making for an increasingly rich conversation overall.

Conclusions

That I was able to inspire one player, a really bright MD/PhD student, to want to know more about knowledge gardening, strongly suggests that important connections can grow out of structured conversations in online game settings. I am now more deeply persuaded that OGTM (online games that matter) will be an important sensemaking and learning strategy going forward.