

INTEGRATED GAME DESIGN: Creating a Compelling Gaming Experience

The goal of every game designer is to create a compelling experience for the players of their games. The craft of creating such experiences, like all crafts, can benefit from the sharing of ideas and techniques, either by communication between contemporaries or by the mentoring of successive generations. A prerequisite to the propagation of such knowledge is a shared vocabulary that references and encodes the tools and ideas useful to the craft . . . something that is still evolving in the game design community.

The craft of designing games is a subject that has only received the broad attention of analysts and theorists in recent decades, perhaps because it was only recently that gaming became a sufficiently pervasive social phenomenon to drive a significant economic surge among its associated industries. (Humans tend to take things seriously only when large quantities of money are involved.) The use of games by the military goes back centuries, but it is only in the past half century or so that it has found a foothold in other serious fields of endeavor like education, business and the social sciences, as well as recreation . . . applications so distinct and unlike each other that it wasn't until the last couple decades that any significant number of game designers began to seek out the general principles underlying all of them, and to strive for a common vocabulary that would allow them to express what they were doing in such a way as to share their discoveries and build on the successes of other practitioners, past and present. Even within the recreational game design community there are gulfs to be bridged, even though the various genres actually have much in common. The perceived differences arise mainly from the disparate media in which the games are presented . . . digital games, hobby boardgames and tabletop miniatures games appearing superficially quite distinct. Without the ability to distill useful principles and share them, each designer is left to find their own way by intuition or trial and error, resulting in missed opportunities and time wasted reinventing what had already been invented.

Over the last few years, the subject has been more intensely and openly explored in books, conferences and podcast discussions (see the end of this essay for a list of those that have influenced my thoughts on the subject the most) and some concepts have emerged that have been very helpful to me in developing tools that have allowed the creation of more compelling experiences for players of my games. In much the same spirit as those who have freely shared their insights through various media, this essay is an attempt to explain my own, personal take on these concepts in such a way that they might be helpful to other designers.

(At this point I must interject a disclaimer: I am approaching this subject from the point of view of a designer of historical games. The designing and playing of historical games serves as a rich, interactive means of exploring that subject. While many of my observations will, obviously, be derived from this frame of reference, I hope I can make them general enough that they will prove thought-provoking even to those who design other types of games.)

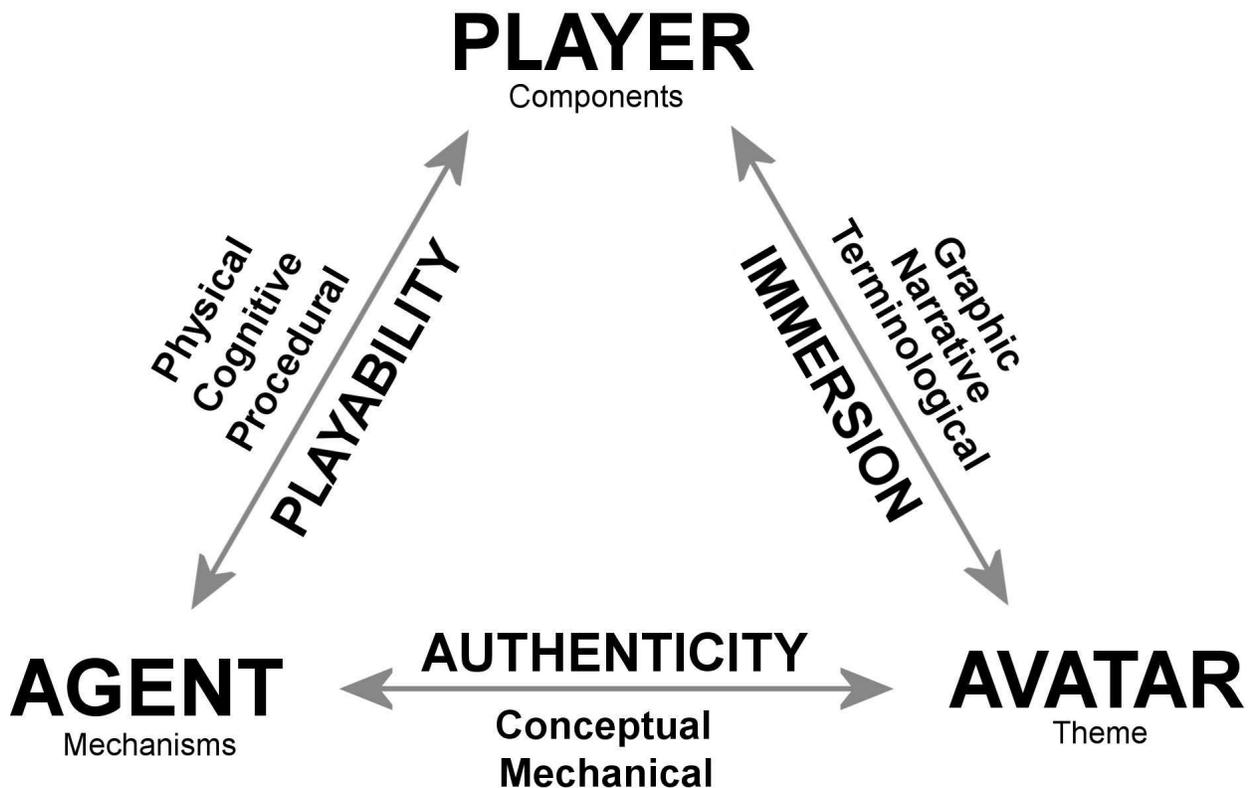
Obviously, any successful game design will be "fun", although the word "fun" is usually used to describe a gaming experience without any accompanying attempt to clarify exactly what that means. (This is especially true in tabletop wargaming, the branch of the hobby with which I am most familiar, in which a significant number of designers remain stubbornly, even

proudly amateurish and are inclined to mock those who try to think more deeply about the subject). Thoughtful designers have spent much time and effort in unpacking the various possible meanings of the word. But what is it, precisely, that makes a game fun, and why are some gaming experiences unconvincing, unfulfilling or tedious? What concrete tools can a designer use to make games that are convincing, fulfilling and engaging?

I find that the characteristics of a game that most lend themselves to an engaging and compelling ("fun") experience for the players are playability, immersion and authenticity. I will discuss each of these in more detail (i.e., what they are, and how a game achieves them), but first we must consider the three "personas" that every player brings to a game. Each of the primary aspects of a game (components, mechanisms and theme) appeals to a different player frame of reference (or "persona"), and the way that a game design integrates these personas is what generates those desirable characteristics.

THE THREE PERSONAS

Consider the following diagram (don't worry too much about all the attached terms for now; I will explain each of them in due course):



The "**Player**" persona is the one who is engaging the game physically. The Player is at a table, usually with friends, handling the components, feeling the finish of the cards and the heft of the pieces as they are moved, observing the shapes, colors and graphics.

The "**Agent**" persona is the one who is engaging the game mentally. The Agent is manipulating the mechanisms, solving puzzles or problems and making decisions that will lead to a desired end-state (often, but not always, known as "winning").

The "**Avatar**" persona is the one who is engaging the game emotionally. The Avatar is adopting a role within the game-space laid out by the designer. They are a farmer, an adventurer, a business owner, a soldier, a general, a head of state, or whatever role is appropriate to the theme of the game.

The integration of each pair of personas along the axis connecting them is what gives rise to the desirable characteristics of a compelling gaming experience. I will consider each axis separately, with each of its aspects. Some will be quite obvious, amounting to little more than common sense; others perhaps less so.

THE PLAYER/AGENT AXIS

The integration of the Player and the Agent is what determines the playability of the game. The degree to which the design of the components complements, aids and reinforces the solving of problems and the making of decisions is key.

Physical Integration: As much of the information needed to make decisions within the game-space as possible (all of it, preferably) should be displayed by the game components. The board (if there is one) and other game parts should aid the memory and help illustrate the dynamic interrelationships of the players' activities. Playing pieces can indicate the type, location and attributes of game elements. Cards and markers can display additional attributes. The position of pieces relative to the graphics on the playing surface, or to each other, can be used to show the proximity and interaction of the elements. Accumulation of cards or markers, or the progress of a marker along a track or through a matrix can record the status of resources or the progress of a lengthy procedure, alleviating the need for the players to remember, or to do bookkeeping on the side. The layout of cards, counters and player aids should be logical and uncluttered. Over-reliance on icons to convey information is to be avoided. Icons of numerous types or icons that are not intuitively designed are virtually forcing the player to learn a new language in order to play the game.

Cognitive Integration: There is a limit to the number of elements, or groups of elements, a player should be required to manage. The quantity that can be comfortably managed without risking cognitive overload is generally considered by psychologists to be about seven, plus or minus two. If the number of elements required is significantly larger than this, they can be grouped or separated into different areas of attention . . . if not, the human brain will naturally tend to focus on manageable size groups anyway, temporarily shunting the others into the periphery of attention, which may lead to opportunities being overlooked or local situations being momentarily forgotten by the Agent. (A higher level of complexity may be deliberately introduced into the game as an intrinsic means of potentially rewarding those players who are more capable of handling it, but must be balanced against the frustration, and thus possible

disengagement, of less capable players.) The same principle would apply to the number of possible actions available to the players, a larger and more complex decision tree having much the same effect as a larger and more complex array of elements to manipulate.

Procedural Integration: Lengthy procedures with many steps, or large numbers of modifiers to a mechanism can slow the pacing of the game, or cause significant factors to be overlooked by the players. Long lists of modifiers should be reduced to a handful of the most significant ones. Procedures with several steps should be reduced or combined, or the opportunities within the procedure for players to act should be interleaved so that no player is left idle for very long. Multi-page collections of charts are to be avoided. Any procedure that requires a flow chart (in effect, a mini-game within the larger game) should be replaced with a simpler one (unless, of course, it is actually designed as a mini-game within the larger game, in which case that should be made clear to the players.)

A game that is otherwise Immersive and Authentic can become tedious if these aspects if Playability are ignored.

THE PLAYER/AVATAR AXIS

The integration of the Player and the Avatar is what creates Immersion, drawing the players into the game world created by the designer. The degree to which the physical design of the game causes the players to buy into the narrative created by the game play and sympathize with the role of the character they are adopting will set a limit on how involved they become (and remain) in the "magic circle" of game play.

Graphic Integration: This is the most obvious and direct means of establishing the theme of the game. The graphics employed in the design of the board, cards or markers create an immediate connection with the players' aesthetic sense and directly define the environment in which the Avatars' actions take place (in the case of historical games, the era and geographic location). The selection of images and fonts for the game's components are the most critical single element to fostering immersion in the theme. Games which utilize miniatures bring an additional dimension to this, since they appeal to the players in both a visual and tactile way that simply can't be equaled by cards or counters.

Narrative Integration: The most immersive games create a narrative, or, rather, allow the players' actions to create one. The story line created in the course of game play, steered by the players' decisions, is a natural fit with the arc of a game (a compelling game experience having a beginning, middle and end, much like a compelling work of literature) and outlining the course the players must follow to achieve the desired end-state of the game. If the narrative shares some of the aspects of a story or character closely associated with the theme (like the young rebel rescuing the princess, the dashing sea captain achieving wealth and fame, or the business mogul crushing the competition), so much the better.

Terminological Integration: This may seem obvious, but don't underestimate the power of using terms that reinforce the theme, instead of more generic ones. The black resource cube is not a "black cube", it's "coal". The right side of a ship is not the "right side", it's the "starboard side". A bunch of soldiers is not a "group", it's a "battalion" or a "company".

Language is a powerful thing, and it will emotionally engage all but the most callous, cold-hearted players (those who play purely as Agents, and are only "in it to win it") and help them to care about the same things their Avatar cares about.

A game which is otherwise Playable and Authentic will seem shallow and soulless if the aspects of Immersion are ignored.

THE AGENT/AVATAR AXIS

The integration of the Agent and the Avatar gives rise to authenticity. This is the very backbone of historical game design, but it is equally effective at generating in players a sense of acting genuinely within the context of a literary or cinematic theme as well. It is simply the result of not allowing anything to happen in the game that violates the players' sense of what *should* happen, given the canonical or historical realities of the theme.

(Side Note: This is often referred to by players or designers as "realism", which is misleading . . . especially in the case of wargames since no game designer is trying to recreate the actual misery of war. I have also observed designers and gamers discussing "balancing" authenticity (or "realism") with playability, as though the two were mutually exclusive aspects of a game, which they are not. In these cases, they are mistakenly confusing authenticity with complexity. Packing in myriad details does not make a game more realistic, only more tedious. What is important to authenticity is maintaining a high degree of congruence between the game's events and what actually happened in history, or in the literary or cinematic canon on which the game is based.)

Conceptual Integration: This is pretty straightforward; if the game allows things to happen which are not consistent with what the players would expect to happen in the context of the game's theme, then the game will appear inauthentic. If the cause-and-effect relationships of the game's mechanisms does not resemble the perceived cause-and-effect of events encompassed by the theme, the game will seem untrue and the theme will seem pasted on. Cognitive dissonance will result if, for example, the rules allow infantry to move faster than cavalry, or a sailing ship is allowed to move directly into the wind, or if an element's attributes seem out of synch with the abilities of the thing it is supposed to represent or out of balance with the attributes of other elements in the game. The overall construction of the game's mechanical structure should also accord with the theme. Building a game around a multi-player solitaire core with little player interaction will not make sense in conjunction with a theme set in a highly competitive context, like a gang war or military conflict.

(Another Side Note: Whether a designer starts with mechanisms first and then attaches a theme, or starts with a theme and then applies mechanisms is a much-discussed topic and much-asked question. Often, a game publisher will acquire rights to a game and then, in the course of development, re-theme it while retaining the mechanisms. This is often successful, in a commercial sense, and sometimes in an artistic sense as well. However, in the context of a historical game, the only way to achieve a high degree of integration along this axis is to begin with the theme and then organically derive the mechanisms from that. Applying a mechanism or set of mechanisms that are constructed for one historical theme to a different one rarely, if ever, yields a satisfactory integration.)

Mechanical Integration: This is more subjective, but nevertheless can have a significant impact on the players' experience. Choosing mechanisms that more closely mimic events encompassed by the theme will engender a sense that the actions of the Agent are more true to the events depicted in the game. Resolving an Old Western gunfight by drawing chits will seem less convincing than doing so by the flip of a playing card, because playing cards are so closely associated in myth and cinema with gunfights. Rolling a handful of dice resembles a broadside from a sailing man-of-war much more than drawing a card does because both are clusters of projectiles.

A game which is otherwise Playable and Immersive will seem false if the aspects of Authenticity are ignored.

So, which of these (I am sometimes asked) is more important? That is like asking which leg of a stool is more important. If one is missing or shorter than the others, the stool is awkward to use or, worse, completely useless. To achieve a compelling game experience (i.e. one that is Playable, Immersive and Authentic), maximizing the integration of all three axes is essential.

I am indebted for these helpful tools to the insights of many brilliant and thoughtful game designers and theorists, some of the most important of which can be found in the following resources:

Geoff Engelstein and Gil Hova, hosts, and Ryan Sturm, onetime co-host of the Ludology podcast.

<http://www.ludology.libsyn.com/>

Dirk Knemeyer, David Heron and Rob Daviau, hosts of The Game Design Round Table podcast.

<http://thegamedesignroundtable.com/>

Troy Goodfellow and Rob Zacny, hosts of the Three Moves Ahead podcast.

<https://www.idlethumbs.net/3ma>

Dr. Bruce Geryk, sometime co-host of Three Moves Ahead and host of the Wild Weasel podcast.

<https://soundcloud.com/user-61606990>

Raph Koster, author of A Theory of Fun for Game Design.

Professor Philip Sabin, author of Simulating War: Studying Conflict Through Simulation Games.

Jon Peterson, author of Playing at the World.

Pat Harrigan and Matthew Kirschenbaum, editors of Zones of Control: Perspectives on Wargaming.

Katie Salen and Eric Zimmerman, editors of Rules of Play: Game Design Fundamentals.

Nicole Lazzaro, author of the 4 Keys 2 Fun blog.

<http://www.nicolelazzaro.com/the4-keys-to-fun/>

Connections Wargaming Conference (videos on Youtube and articles on the blog)

Conference website: <https://connections-wargaming.com/>

Blog: <https://wargamingcommunity.wordpress.com/>