Ten Ingredients of Great Games (Apr 10)
By Byron Reeves and J. Leighton Read

There are lots of recipes for great games. A bad cook, or just an unlucky one, could spoil any of them, but by and large, the successful multiplayer titles work their magic using variations on the ten ingredients described here.

1. Self-Representation with Avatars

The central feature on the screen is an avatar, and those belonging to other players, friend and foe. Like a puppeteer, the player controls a personalized character that's her stand-in within the game—her "mini-me." The ability to represent oneself within media, and exert precise control over that representation, fundamentally changes the psychology of using technology. The player isn't stuck on her side of the glass. She's in the scene, she can speak to and touch (at least virtually) other players, and her presence alters what happens next. She's part of the story, with a character to mark her presence. She's not just a recipient of a story someone else authors. Engagement is the result.

2. Three-Dimensional Environments

Avatars live in a visually rich three-dimensional world. This makes the game interesting not only because the player's presence in the world is embodied via an avatar, but also because he navigates in a game space that parallels physical properties of the real world. This is created through the rendering of 3D graphical models onto a two-dimensional screen much like the way that perspective drawings on a page simulate depth. In today's games this effect is extremely powerful without virtual reality goggles or wrap-around screens. This is an important ingredient because it allows virtual space to be understood in the same way people negotiate the real world.

3. Narrative Context

Good games have good backstories—galaxies at war, people who need rescue, or places that may soon be destroyed. Such narratives guide action and organize character roles, rewards, and group action. The information a player sees about her character and team is drawn from a particular game narrative and is constantly reinforced. Stories have several important psychological advantages that help keep people engaged.

4. Feedback

Game interfaces set a new bar for feedback. At any one time, a player sees progress bars, zooming numbers, and status gauges, all in a well-organized dashboard that lets players know how things are going, good or bad. Numbers indicate the health of players, the time left before an attack, the amount of gold accumulated so far, the bids from other players for scarce resources, or the reduction in a competitor's powers. All of this quantitative feedback increases engagement in the action.

5. Reputations, Ranks, and Levels

Gamers, like power-sellers on eBay, have ranks and ratings that are available for all to see and are hard to spoof. Reputation information not only identifies their place in the game hierarchy but also makes apparent competencies, talents, and special experiences that others can use to make choices about other players.

Digital reputations (sellers on eBay, hotels in Hawaii, or books on Amazon) are increasingly easy to compile and are clearly influential in online commerce. This is equally true in the games, at least with respect to their ability to create an easy-to-use and engaging social scene. The very point of the games is often to augment reputations and then broadcast accomplishments widely. If players didn't care about their reputations, most multiplayer games wouldn't work.

6. Marketplaces and Economies

An important feature of all multiplayer games is a synthetic currency and the marketplaces it enables. Every title we know of has such a currency in one form or another. Currency systems allow players to make trades efficiently and to quantify all manner of value. In real life, economic scoring might include savings, revenue, profit, and especially salary (in dollars, of course).

Synthetic currencies enable real economies; that is, they facilitate decision making under conditions of scarcity, but without the consequences that accompany transactions with government-recognized money (problems such as taxes, withholding, and salary disputes). But just because the currency is synthetic doesn't mean that tried and true economic principles don't apply and that people don't take it seriously. This is a simple but startling result: the scarcity of a synthetic currency used in an entertaining game can create the same economic behavior as the currency of the realm in real life.

7. Competition Under Rules that Are Explicit and Enforced

Most gamers play to win. There's substantial variance between them in the intensity of competitive urges, but by and large, it's good to win. It's important to note an ingredient that allows competition to work: rules. Rules allow games to work, but it's important to note that the discovery of those rules can itself be part of the fun. Where else can you transgress with impunity as the preferred method to find out what's really possible? Once discovered, however, rules allow players to trust the game. Players value the level playing field created by rules when they're evenly and impersonally applied (after all, it's the computer that most often enforces them). Rules that are well known and enforced establish a sense of fairness that pervades play.

8. Teams

There has been a sea change in the popularity of solo games compared with those that involve multiple players. Group games, whether played at a computer, a console, or even casually on a phone, are winning. The commercial era of multiplayer games started modestly, with LAN (local area network) parties where players could hook their game consoles together to allow four or eight individuals to compete. Very good small team experiences can be had in successors to these early LAN games, for example, Quake, Half-Life, and the Counter-Strike and Call of Duty series.

With ubiquitous and affordable broadband now available for many people, most top-selling titles now permit multiple players to engage with and against each other over the internet, although it is the more sophisticated role-playing games that are optimized for complex group play over extended sessions.

The social relationships that form in games, and the attraction of players to those relationships, are one of the more studied aspects of the MMO genre. It is clear that games afford interaction opportunities that are every bit as engaging as those in real life, even if not as numerous. Fellow players yell and scream, reveal personalities, and disclose personal experiences in the course of organizing and collaborating to reach team goals. The close connection to other players causes one's social-emotional engine to run continuously, and that charges interactions.

9. Parallel Communication Systems That Can Be Easily Reconfigured

The visuals in games get much of the attention, but it's the written and spoken communication that enables much of the social engagement. A player can chat with any team member he chooses, either by voice or text, merely by clicking buttons. It's fun to talk, and the games make this easy in the same way that the television remote changes TV programs. A small amount of technology, already available to enterprise information technology departments, creates an easily configurable communication experience matched to player style and the task at hand. That is, it's easy to change channels.

10. Time Pressure

A good definition of a multiplayer game is collaborative achievement under uncertain winning conditions. The uncertainty comes from two sources. One is simple expertise: "Do I know enough?" and "Am I good enough to do the right things?" The other is time: "Will I be able to do them in the time allotted?" For gamers, it's fun to be on the clock.

Games that weave together all of these tools are huge undertakings. The best ones cost tens of millions of dollars to produce. We strongly believe that the ingredients can be quite useful in smaller batches and even one at a time. Some can make huge improvements in work with only small adjustments to current practice and technology. You don't have to build an entire game to use games at work.

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