

# The Sixth Annual Game Design Think Tank Project Horseshoe 2011



## Group Report: How to Reinvent a Genre

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## Problem Statement

### Abstract

Game genres are typically rules-based classifications of games defined by a game's mechanics. The process of redefining a genre is probably one of the oldest problems in the world of game design. Maturing genres can become commoditized, where profit margins are eroded over time. Game companies that do not innovate within genres, run the risk of having their market disrupted by others that do innovate. Through this paper we hope to arm game designers with the tools and framework necessary to overcome obstacles to Radical Reinvention in new and existing game genres.

### What is a genre?

Before getting into the details of the problem of innovation surrounding genres, it is important to clarify what a genre is. Genres are typically rules-based and are classified by their mechanics. Let's take for example a few specifics of game genres:

- Text Adventures
- Racing
- Fighting
- Match-3

This form of functional classification makes it easier to distinguish game genres from themes, which focus on either the aesthetic, narrative structure, or setting (e.g. Western or Steampunk). The visualization or interface of a game, such as Text or First-person, can also be a part of the classification of a game but can be considered secondary.

The need to classify games could be traced back from the marketing-side of games. As marketing professionals sought out product categories to define games, which enabled them to research the commonalities within the particular subsets of player audiences.

### The Problem: How does one break apart or redefine a genre?

Redefining a genre is probably one of the oldest problems in the world of game design. In a risk-adverse business, the game industry has matured to the point where game design only changes at most that “10%” of what was familiar. This report is looking to define a process on how game designers can bring about Radical Reinvention of new genres and bring out changing a significant proportion of the familiar.

In a sense, games need to undergo Punctuated Equilibrium. Instead of gradual change, from an evolutionary perspective, adaptation requires quick jumps in genetic variance, which enable mutants to best fit in a changing ecology or a completely new one. Often, the birth of a new genre is marked by Founder works, that is, games that are so successful that they are varied and copied, this multitude of variants establishing the genre.

So, why has the creation or redefinition of new genres stopped? Change is considered risky. The escalation due to competition within existing genres has driven up the cost of production, making radical reinvention difficult to accept for most decision-makers. Through this paper we hope to arm game designers with the tools necessary to reduce the risk of genre innovation.

The need for product innovation is not a new problem. Parallels of genre innovation can be made to the concept of Disruptive Innovation, as illustrated in the book *The Innovator's Dilemma*, written by Clayton M. Christensen. Disruptive innovation explains how the creation of new markets with a different set of values can eventually go on to overtake an existing market. Game companies that do not innovate within genres, run the risk of having their market disrupted by others that do innovate.

These values are further outlined in the book “*Blue Ocean Strategy*”, where W. Chan Kim and Renée Mauborgne describe the concept of Red Oceans vs. Blue Oceans. Red oceans are known market space, where many competitors and businesses must fight for market share. Blue oceans are new, unknown spaces, where there are fewer competitors and market share is created.

The existence of an established genre represents a red ocean. The challenge for game designers is whether games can evolve from these red ocean genres. The risk is that red oceans are commoditized, where profit margins are eroded over time. There is also a higher cost for independent game developers to enter and compete.

Genres are a form of “trust framework”. Much in the way we think about cars, customer’s buying habits are different based on their expectations of a product. For example, one would not necessarily consider a Prius as the same as a family car. In a sense, innovating a genre is about changing the value proposition of a game. Changing the genre inherently affects the experience that is promised to the player audience.

Since genres can emerge from new markets, the secret is to finding them. New technologies are a great breeding ground of new markets. For example, new genres and new audiences have been created through the diffusion of technical innovations of Social Graphs, such as Facebook, and touch devices, such as the iPhone.

In a way, one can also think of a genre as a point in a sliding scale of decision-making and play-style. Genres are by no means absolute or should be considered as mutually exclusive ideas. Because players have varying play-styles, game designers can choose to pick a certain point in that gradient to attract different types of players.

## Solution

The first step that must be taken to innovate a genre is to select one that is ripe for innovation. The genres that tend to have the most potential for innovation are those that exist inside of a “Red Ocean” market (one

that has a great deal of competition in its space, often tending to be clones or reskins). The goal of working with genres in this particular space is to innovate on them in a way that moves them into an uncontested “Blue Ocean” where that genre has the ability to shine as a new experience.

We have a distinct set of tools that aid us in achieving our goals of creating genre innovation. Each of these tools can be applied to further the process of defining the ideas necessary to innovate each genre. It is important to note that although some of these tools may be difficult to apply to specific genres, we have found the process of applying them and the brainstorming that results to be remarkably productive when striving for genre innovation.

One of the most difficult aspects of striving for innovation is ensuring that you are working towards something that is achievable. A common pitfall is allowing yourself to become overwhelmed by the sheer scope of innovation. In order to address this, it is critical that as you apply these tools to innovating genres, a razor sharp focus is maintained to identifying a simple and implementable concept. Maintaining that simple and implementable concept as a goal will allow you to cull down extraneous decisions and additions, and will get you closer to a point where you can prototype and playtest your ideas, continuing the process of iterating on your design innovations.

These tools are split into two distinct categories, representing the source of changes: innovations from analyzing potential changes in the game, and analyzing potential changes in the audience.

## CHANGE GAME

### 1. Subtracting & Adding

When analyzing a genre that has the potential for innovation, it is crucial to subtract down to the most core elements that define it for the player. Any genre can be culled down by removing elements that do not directly augment the base identifying experiences that make up the player’s expectations. We call these core elements the pillars that make up the “joy engine” of a genre.

We can use these elements that make up a genre’s joy engine to begin to look at the genre in the light of change and innovation. Once they are identified, a core subset of them can be selected and a pivot made to shift the genre in a new direction. From there, we are looking to add elements to rebuild the genre while maintaining pieces of the core joy engine. Some examples of elements that can be changed for a pivot are:

- Pace of user interaction (twitch, turn based, asynchronous)
- Number of players (single player, one vs many, coop)
- Progression (player growth, discovery)
- Platform (PC, console, mobile)
- Business model (free to play, subscription)
- Level of abstraction (setting, indirect v. direct input)
- Conflict (combat, escape, moral choice)

The process of adding back into a core game can be a daunting one, and can easily lead down a path of adding in familiar elements that have already been explored in your genres. To combat this, we need to ensure that we give ourselves constraints that push us away from these tendencies. One way to find a set of constraints is to build a list that is opposite to the pillars that construct the joy engine - build a list of elements of the genre that you hate. Simply articulating them in a list can inspire constraints that require looking at the genre in a light that promotes innovation.

Identify constraints that require you to make difficult compromises that may seem impossible inside of your

genre. These compromises are necessary for the sake of exploration of new ideas and can aid you in the search for inspirations far outside of the genre's core. How would you build off of the joy engine of an FPS if you removed combat? Or if you limited yourself to a pace of interaction of a turn-based game? Often times these constraints set the stage for ideas that are difficult to come by otherwise. Even if those ideas are not the innovations you move forward with, the critical thought exercise often causes treading of new ground.

## 2. Smashing Genres Together

Genre innovation can additionally be created by merging multiple different genres together in order to create a new experience. Often times it is used to identify the joy engines of the genres that are inspirational to identify the elements that you may be able to put together. In many ways this can be presented as a simple building block mentality. Those building blocks can often come from the core elements of a genre's joy engine or could additionally come from single elements of complexity a game has executed on.

As an example, let's take a look at Portal, a game that effectively combined the First Person Shooter and the Puzzle genre together. In doing so, Valve created an experience that gives the player the familiarity of one genre in presentation (FPS) while introducing a twist that delivered a new experience (merging with a new puzzle solving aspect).

One failing that can come from this approach is attempting to compare the new game mashup to one the original genres. This can easily present itself as a question that brings anxiety ("Is this new puzzle / FPS shooter concept still an FPS if there is not combat?"); however, if the game experience is a new and enjoyable one, it's important to realize that the answer to this question is often irrelevant to innovation of a new genre.

## 3. Adapting a Genre

A tool that we often see in the growth of genres is the exercise of gradually adapting or evolving an existing genre. It has become common design practice to take an iconic game in a genre, create a copy of it, and make a minor new addition. Effectively, this parallels the process of a single generation of evolution. While not an effective way to innovate new game genres, the metaphor to evolution can be a powerful one.

Specifically we can study the process of how larger evolutionary leaps exist inside of ecology: via multiple generations of evolution and outlying mutations. Mapping those concepts to game genres; we can take a genre and place it in an unfamiliar environment. By doing so, we begin to identify what changes would be necessary for it to thrive in this space. If we narrow our focus to solving these, we can approach the problem of innovation in a very specific and contained fashion.

As an example, how would the Real Time Strategy genre need to evolve or mutate if we placed it in the environment of smartphones? Removal of mouse input, constrained time in play sessions and limited screen real estate delivers an environment that forces evolution or death. The critical component that must be addressed when taking this approach to genre innovation is to focus on the environment and to be unafraid to remove or change large pieces of the existing genre in order to have it thrive in the new environment.

The most common pitfall with this approach is to naturally make small changes or evolutions to the genre in order to make it fit. In the case, often forcing yourself to project forward what those evolutions would look like after another five or ten generations of evolving can provide some insight into a change that can truly innovate.

An iconic example of 'genre mutation' thriving in a new environment is illustrated by inciting a drastic change of the player audience. By forcing yourself to look at a genre in a completely different

environment, in this case through the eyes of a player you would not expect to play this particular genre, inspirations for rampant evolution begin to become apparent, as we will explore in the next section.

## CHANGING AUDIENCES

### 1. Reinventing/Repackaging

- a. Example case: Plants vs. Zombies bringing tower defense to a new audience

Audiences are tuned to familiarity. They frequently reject seemingly difficult learning curves or styles to avoid trying new games, genres, and experiences. It is interesting to note that many of the same mechanics that work in some genres and settings can make the leap to the mass market if they are repackaged in a more accessible manner.

An example of this is demonstrated in PopCap's Plants vs. Zombies. In this title, PopCap distilled the existing genre of Tower Defense into a very successful, mass market product, while capturing the essential experience of the genre.

Some of the keys to success were identified as:

#### **Clear Understanding of the Core Joy Engine**

Joy in Plants Vs. Zombies comes from a simplified map structure as well as a unique pacing mechanic.

##### *Simple Map Structure*

Generally, a Tower Defense game allows the players a wide degree of unit placement on the level map. This was to challenging to communicate to new players. Plants vs. Zombies simplified the map and the placement choices while at the same time expanding the placement mechanic.

##### *Unique Pacing Control*

Plants vs. Zombies was developed by Flying Bear Entertainment, makers of Insaniquarium. Insaniquarium featured an interesting resource harvesting mechanic where the fish in your aquarium would drop currency based upon being fed and cared for. More advanced fish drop more coins. The currency allowed you to buy further upgrades and fish to help in elder/advanced gameplay and served as a pacing/gating mechanic throughout the game.

Plants vs. Zombies is the mechanical descendant of Insaniquarium specifically in the context of pacing. Sunlight falls from the sky as well as is generated from the planted sunflowers. Players use sunlight as the core currency in real-time to place new items. The mechanic is extremely well communicated in contrast to the standard Tower Defense approach and manages to ease players into very interesting gameplay as while preparing them for point buy resource selection in future levels.

#### **Humorous, Highly Stylized Cast**

Both the cast of Plants and Zombies in the game reflect PopCap's sense of humor that fans of past games already understand. By selecting fun and interesting combatants, the game captivates and entertains.

### 2. Teaching a new model

Even when operating in a known genre, innovation implies teaching the new bits to the audience. When the innovative parts are few and small, teaching is made easier because they can be expressed in a familiar context, using a familiar vocabulary. Incremental innovation is what our industry is built upon, adding or tweaking features that don't fundamentally alter the playing experience. For instance, the active reload mechanism in *Gears of War* is a relatively small change in the shooter model and it is quite easy to grasp. The advantage of making such incremental changes to the conventions of a genre is that it puts

them right at the center of the experience: players clearly identify the delta with the archetypal model of the genre. It's also a great marketing tool because the developer can explain what is unique about his game while being able to assume a base knowledge in his audience. He can go right to the interesting parts.

When you're talking about reinventing a genre, the designer faces a very different problem from just introducing variation on mechanics. If the game deviates too much from the agreed-upon genre archetype, the amount of knowledge shared with the audience shrinks dramatically.

Playing can turn into a guessing game for the player who tries to identify which of the conventions he knows are still applicable, often by trial and error. If the process of learning these new conventions is not integrated in the game, or if feedback regarding the player's tries is poor, this can lead to confusion and frustration.

When incremental innovation was put front and center as a side-effect of existing in a known framework, it's the job of the designer to present radical innovation to the player so he can learn it as effortlessly as possible. One of the most successful examples of this is of course *Portal*, where the teaching of the puzzle mechanic is done in such a way as to get over the disconnect of audience expectation of a first person shooter, even if a lot of control conventions of the FPS genre are preserved.

Teaching a new model to the player is a complex task, as is learning one when you're fighting the instincts you acquired playing games in the genre. Thus, it should be at the heart of the design and of the player's experience.

This can be done in different ways, like:

- Exposing the player to new gameplay gradually, one skill atom at a time, by limiting his access to new powers. The game then checks that the player has learned a given skill before introducing a new one.
  - By having gateway challenges that require mastery of the taught skill. This is the most common method.
  - Or by modeling the player's behavior and identifying when a skill has been used enough to be considered mastered. Note that this method is much preferable to the previous one, because just passing a challenge doesn't mean that the player understands or even remembers the associated skills.
- Offering challenges that only require a subset of the skills to defeat, while still allowing the player to explore the full depth of the game system. Each challenge focuses on some skills only, introducing new skills and new combinations of skills as the game progresses. That's how *Portal* or *Abe's Oddysee* do it. This method lets the player experiment more, without requiring he does. Best of both worlds, but it requires the beginning of your game to have the structure of a tutorial.

Finally, the game should acknowledge when the player has learned some new skill, for reinforcement and for letting the player know that he groks the game.

### 3. Changing essential experience

A simple trick for opening up the conceptual space in the creative process can be to change the theme of the game. An RPG does not have to be in a medieval rural environment, and an FPS doesn't necessary need to have soldiers. This can have the effect of being a more profound change to the affordances of the gameplay than just changing the "skin". One example is described below where we experimented with having an RPG in a hospital setting. An FPS type game targeting a new audience could use other types of targets and weapons.

In the early stages of design of a game with novel features or non-traditional combinations of features, it can be good to select play-testers with limited experience of the genre conventions that the designer is experimenting with. A strong pre-conception about how a game "should" work can slow down the players'

process of understanding the game. Once the design is more mature, designers can work out how to introduce the features that players might have strong preconceptions about. An example of this is TripleTown where players used to other games combining three items of the same type were used to a certain type of mouse gesture, “dragging” for selection. These players perceived the game as broken, and needed very clear instructions (“do not drag”) in order to play the game at all.

## Reinventing the FPS

(with bullets)

The FPS is perhaps the most crowded and bloody genre in the red sea of game development. What would it take to reinvent the core systems as a new blue sea game?

First we listed the core characteristics of the game. We approached this from the perspective of identifying player skills and then secondarily identified systems that supported these skills

- Aiming
- Aiming while moving
- Ammo and Pickups
- Traversal of space in an efficient fashion while avoiding dangers
- Your first person view into the world
- Mastering mouse look and WASD controls. This can be further split into the key movement verbs: Turning, Pitch, Moving forward, Moving backwards, Strafe
- Combat
- Weapons switching logistics and resource management
- 3D Space

Next we listed things about FPS that restrict that market or personally piss us off.

- Disorientation: The limited viewpoint + 3D environment feels like you are staring through blinders
- Clunky control. Many players feel they are steering a giant blocky refrigerator around the world.
- Shot from behind and have no idea what hit you.
- Most games are very twitch oriented
- Levels are often highly linear
- Not a lot of verbs. The environment is quite static and your general verb is ‘shoot’

Then we listed variations that might cause a major adjustment of the traditional constraints or environment that the FPS currently live within

- Business model: Typical business model is selling a boxed title at retail. What if it is F2P or a mobile app?
- Platform: What if the game is on the iPad
- Audience: What if we broaden the audience to include more women?
- Interface: What if we radically simplify the interface so that it is easy to negotiate.
- Multiplayer: What if we have a 2 player game. What if it is a play-by-mail game. Coop?

At this point we started brainstorming based on the following

- A few key pillars: First person point of view,
- Constraints: Not WASD and very simplified movement, Not twitch
- Variations: iPad and focused on female gamers.

We then generated a series of half-assed ideas.

- A game where you use zip lines to travel to a series of floating blocks. Your goal is to turn the sides of all the cubes in the landscape into your color. This is a play-by-mail game with another player
- A jumping, falling game where you drop down onto a series of falling blocks of ice in the middle of

an avalanche

- An insult game in which you zoom in on various parts of a hip girl's body and then click the parts that are flawed so that you can insult her. For example, you circle around behind a girl and then zoom in on a logo on her purse and call out that it is a fake, not a real Coach. Positioning and aim are critical skills. An alternative version involves finding nice things to say about ugly people.

Brainstorming had the following issues

- You end up with dime-a-dozen ideas that are interesting, but don't feel complete.
- The ideas are not easily implementable as a quick-and-dirty prototype that is playable.

We delved into alternate themes that might broaden the audience. This was not a super productive exercise. Examples:

- Creation (Minecraft)
- Chores
- Multitasking (Diner Dash)
- Fashion
- Shooting verbs at objects
- Gaze, Comments, Compliments

Finally we tried mashups. This was immensely productive. This allowed us to build up a new game from our simplified foundation by applying robust and coherent systems of mechanics and dynamics.

- Q-bert:
- Hidden Object
- Mario Galaxy Level in which you move to squares that disappear as you move off them.
- Tower Defense
- Sims
- Pac-Man
- Mirror's Edge
- Mine Sweeper

From this, we finally were able to come up with two crisp design that can be implemented.

- 3D Hidden object games: You are navigating through a 3D world, zooming in on various aspects of the scenery with pinch and zoom. You need to find various objects such as treasures hidden deep into an old galleon. Peer through a window at the right angle and you can capture the treasure.
- Puzzle Mine Sweeper in 3D: You need to navigate a 3D space and collect the treasure by clicking to move in a straight line to a location. Some locations can't be traveled to. Some can be traveled to, but are dangerous. However, if you scope out a location by looking at the path from a different perspective, you can spot traps (the giant hidden blade that scythes from behind the stone block).

These concepts have several key attributes that make them attractive

- They are easily implemented
- The rules are 'crisp'. There aren't a lot of complex simulations or analog elements.
- The systems are not 'brittle'. You can imagine many variations of these prototypes that still have enjoyable dynamics. A warning sign is if you create a system that stops being fun if you start tweaking and adjusting even a few of the concept's elements.

## Reinventing the RPG

One of the genres we decided to attempt to reinvent was the RPG genre ... specifically, the fantasy role-playing game designed as a single-player experience, and sold through the traditional boxed, retail



channel. For example, “Oblivion”.

First, we listed the core characteristics of this genre:

1. Evident advancement of your characters powers and abilities over time
2. Progress that is driven primarily by time investment rather than by growing player skill
3. Exploration of an environment
4. Combat and conflict resolution
5. Narrative
6. Character individuality and customization
7. Very often a medieval/fantasy theme and setting
8. Quests or missions that drive the game arc

We then brainstormed until we came up with a goal for the reinvented genre: creating an RPG for a mass market ... “an RPG for your mom”. As a setting for such a game, we wanted something taken from the schedules of prime time TV or the NYT bestseller lists, rather than the pages of Tolkien or the mind of George Lucas; we settled on a hospital theme.

We then took that goal and used it as a filter on the core characteristics, to see which ones we needed to keep, which ones we needed to adapt, and which ones we could throw away entirely. We kept: 1, 2, 5, and 6. We eliminated 3 and 7; the hospital game will take place in a relatively small environment requiring no travel or exploration. 4, combat, we changed from a battle with monsters where death represents success, to a battle with disease and injury, where success represents life. For number 8, the hospital game will still have quests, but they will be a simplified system representing far fewer simultaneous goals.

The result is a design framework which preserves the long-term compulsion arcs of the RPG genre, but which simplifies and rebrands the game for a mass market audience.

## Conclusion

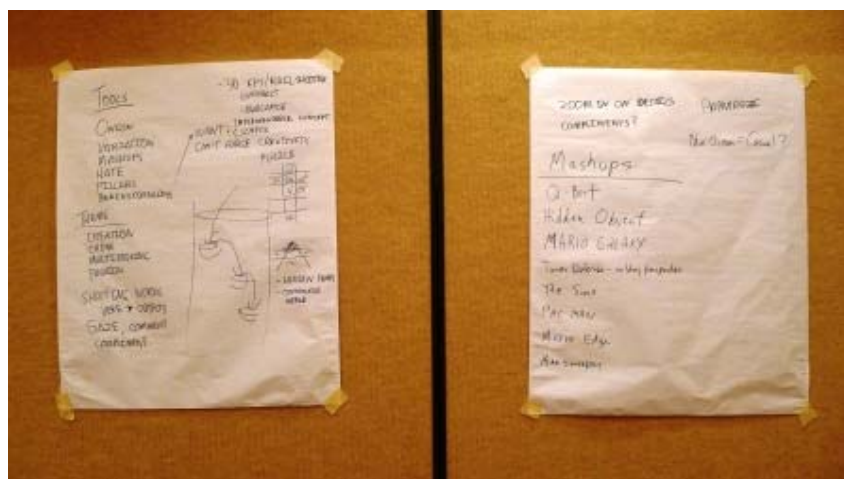
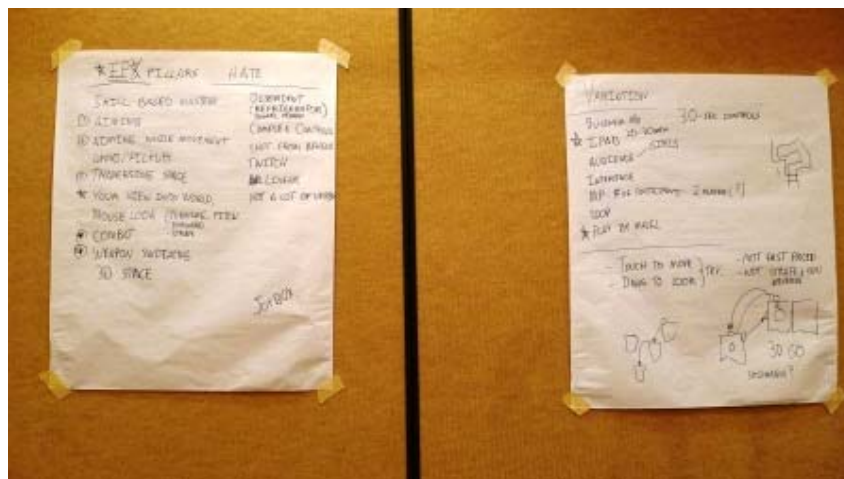
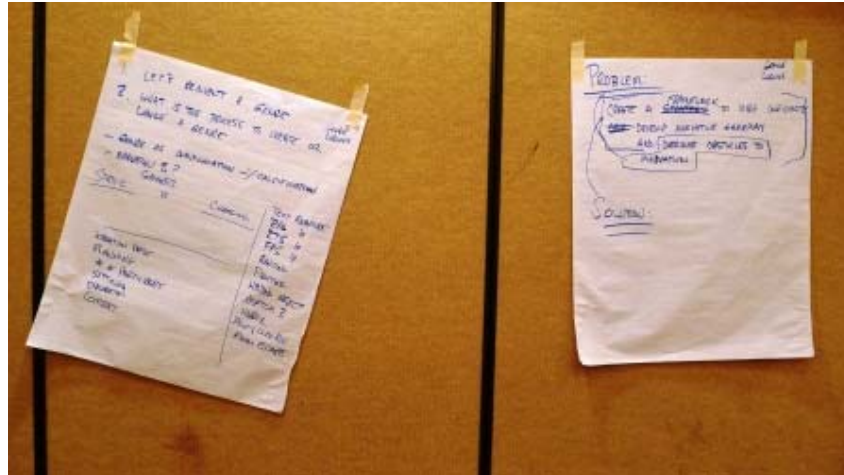
Innovation of new classes of game help us both move our industry forward and reap substantial financial reward when we are able to found new genres and franchises. However, the perceived risk of innovation often scares teams away from pursuing reinvention. By following a defined process of reinventing an existing genres, we can dramatically reduce risk.

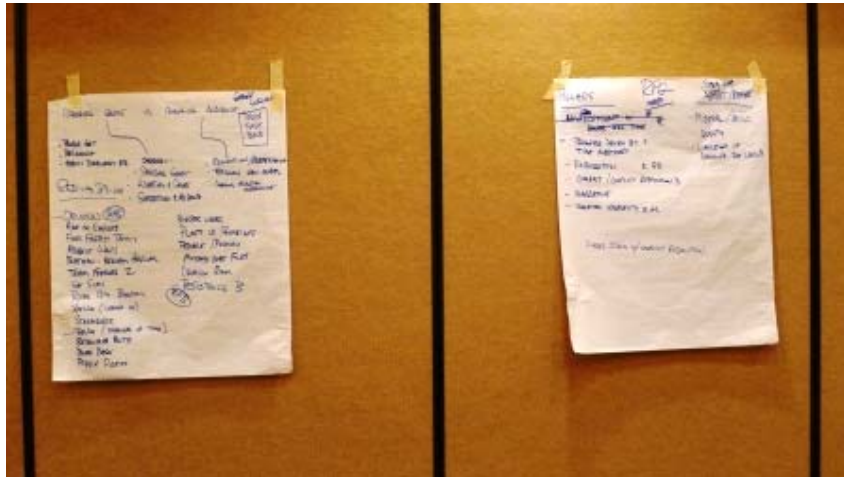
The key tools for game designers to apply to their own work include

- Trim down an existing genre to a few key concept. Focus on the high frequency, core activities. Jettison the rest, especially those elements that are lower frequency.
- Create a list of constraints or anti-patterns for aspects of the genre that you will not add back in to the game under any circumstances
- Eschew the preconceptions associated with the experience generated by the genre.
- Identify environmental factors such as platform or audience.
- Twist the concept by mashing up elements from different genres
- Identify concepts that are easily prototyped yet can be robustly manipulated without breaking
- Prototype the game immediately.
- Playtest and iterate until it becomes enjoyable.

By following these steps, designers will improve their chances at creating innovative game designs and claim their own Blue ocean in the traditional Red oceans world of game development.

# Items from Brainstorming lists that the group thought were worth reporting





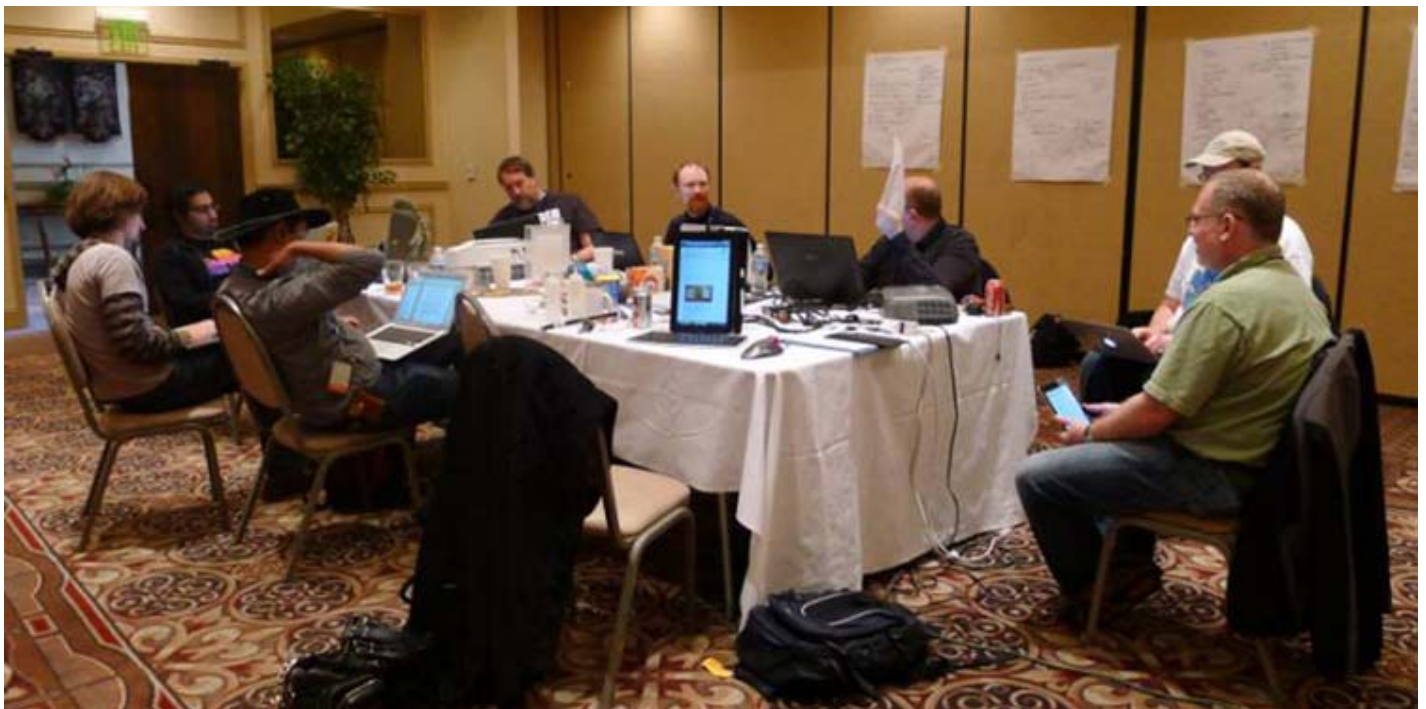
Links to versions of above with higher resolution

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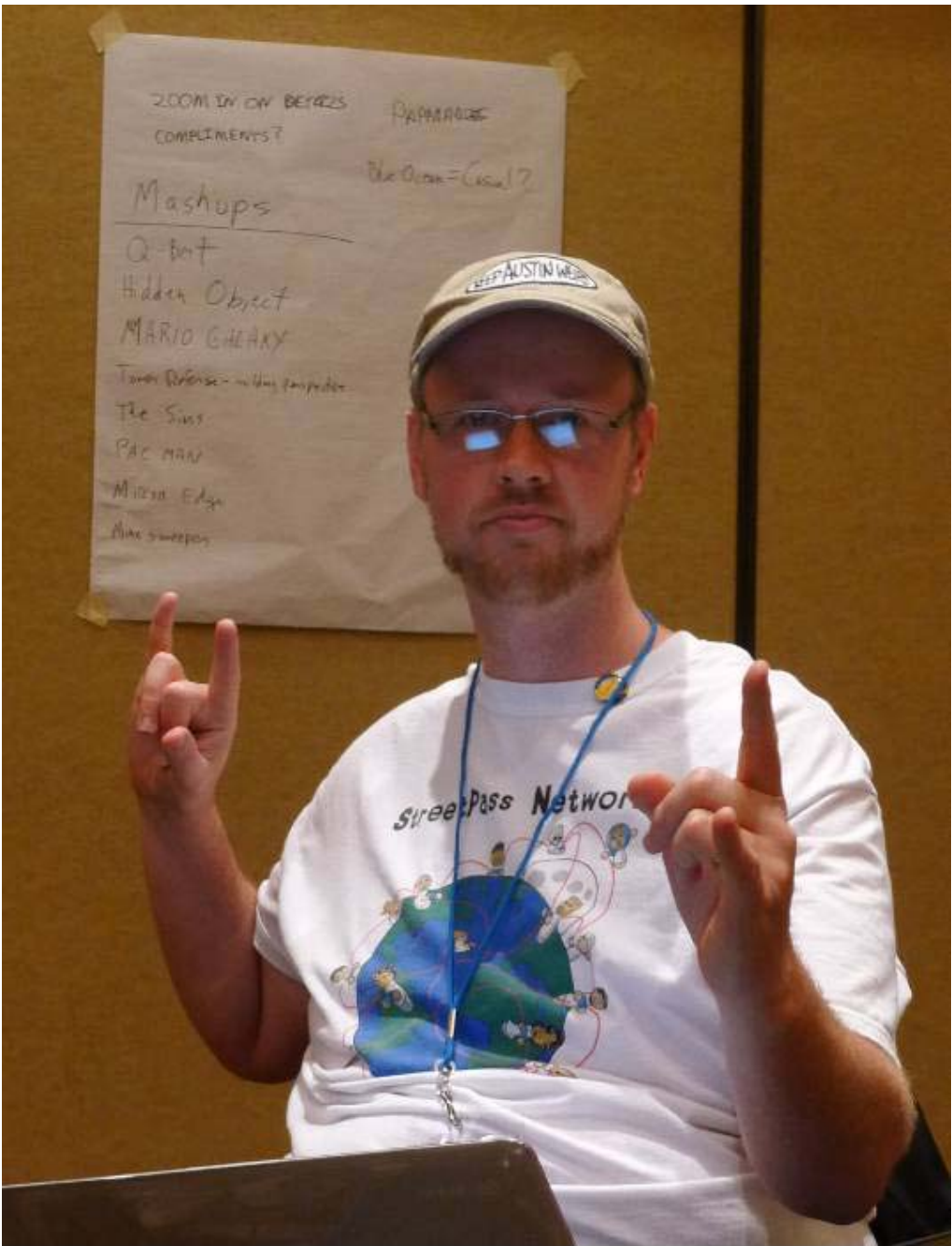












ZOOM IN ON BEARS  
COMPLIMENTS?

PAPAAGOS  
The Ocean - Casual?

### Mashups

- Q-bit
- Hidden Object
- MARIO GALAXY
- Tower Defense - in this genre
- The Sims
- PAC MAN
- Mission: Edge
- Axe sweeper

StreetPass Network









## Other reference Material

The genre life cycle:

[http://www.gamasutra.com/view/feature/1453/the\\_circle\\_of\\_life\\_an\\_analysis\\_of\\_.php](http://www.gamasutra.com/view/feature/1453/the_circle_of_life_an_analysis_of_.php)