Pacing in multiplayer games

This article discusses how the core gameplay mechanics may affect the pacing curve in multiplayer and what influence the level designer has.

August 2010
www.filip.colianos.se

Filip Coulianos
coulianos@gmail.com

Introduction

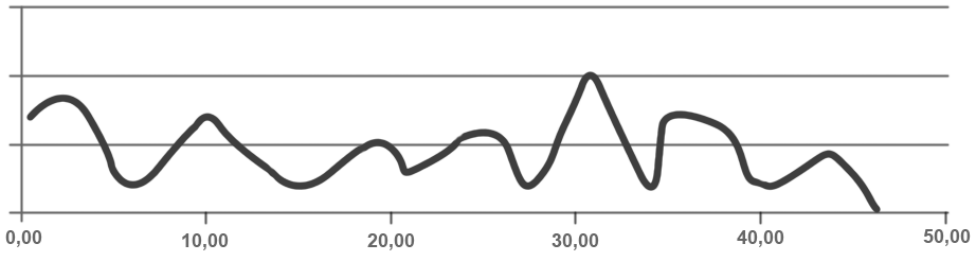
A big part of being a level designer is working with pacing. It's one of the things they should be good at, to know about and to be accustomed with. However, in reality, the level design is totally dependent on core gameplay mechanics. This article has more of a reasoning character and will discuss how the core gameplay mechanics may affect the pacing curve in multiplayer and what influence the level designer has on the experience.

The approach I'm taking in this article is to draw a basic pacing curve for a game in Deathmatch, Counter-Strike and Left 4 Dead. I will look at how the core gameplay mechanics controls the pacing curve. I will also measure the games in what I call, in a lack of better words, "level of narrative". A game with weak narrative would be a game where the exciting things occur in a seemingly random pace. A game with strong narrative has peaks and shallows of excitement cleverly designed and measured to keep the players on the edge and stimulated throughout the game session.

I strongly advice that you have played the aforementioned games to make it easier to follow the discussion in this article.

Deathmatch (weak narrative)

Deathmatch is a game mode that many single player titles have more or less successfully shipped with. In Deathmatch, player kills a few times, and then she dies, gets the powerful rocket launcher, kills a few more players and so on. As the players spawn randomly and the rules of the game don't change, the pacing curve can be perceived as random:



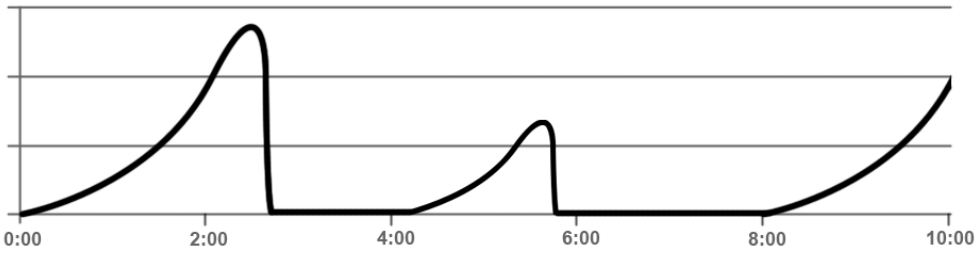
A simplified hypothetical chart of a Counter-Strike pacing curve. Y-axis shows excitement and the X-axis time in minutes.

Interestingly enough there are levels designed to contain some narrative elements to make the pacing curve more interesting. One of the most classic elements is perhaps that the level has a secure room with a red button inside. Pushing it will call a nuke, gas, flood or similar, that within 30 seconds kills everybody except for the players who are inside the bunkers.

Although these "hacks" to the original gameplay appears to be very much appreciated by some of the Deathmatch players, it seems like the majority still prefer a more flat pacing curve and less narrative because of the extreme popularity of "killboxes" (custom made levels which basically only consist of an empty room with spawn points on either side flattening the pacing curve even further).

Counter-Strike (medium narrative)

Counter-Strike as of today has over 40 000 people playing at any given time and has been THE online shooter for PC for over 10 years, only to be surpassed by Call of Duty: Modern Warfare 2 in popularity. The interesting thing about Counter-Strike is the four minute round game mechanic forces the rounds pace to increase until the player dies, or the round is over.



A simplified hypothetical chart of a Counter-Strike pacing curve. Y-axis shows excitement and the X-axis time in minutes.

In addition to this the "DE" levels has a bomb; as the bomb gets planted the rules of the game change and a new winning condition for both teams are introduced. As the round continues everyone can hear the bomb tick faster and faster which in turn increases the pace of the game dramatically until the climax where either it explodes or gets diffused.

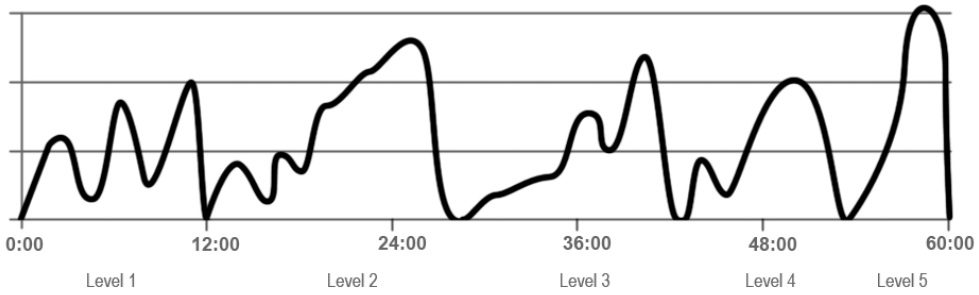
A simplified hypothetical chart of a Counter-Strike pacing curve. Y-axis shows excitement and the X-axis time in minutes.

This mechanic alone makes a Counter-Strike round pretty close to a classic dramatic curve seen in books or movies, unless the other team doesn't get killed before the bomb is planted thus breaking the curve. But is that a bad thing? I don't think so, but I can't help myself thinking; what would happen with the game if the bomb was already planted at the beginning of the round?

There isn't much the level designer can do to control the pacing of Counter-Strike. Instead the art of level design in Counter-Strike relies on balancing and creating a solid ground for interesting encounters and tactics. Despite of this, level designers have come up with lots of wacky game modes that alter the narrative curve with varying success. "FY" is perhaps the most notable one in which the designers removed the secondary winning condition (rescue hostages or disarm bomb) and made the game all about killing the other team. This flattened the curve and weakened the narrative. None of these alterations has become more popular than the original game modes.

Left 4 Dead (strong narrative)

As Left 4 Dead's core gameplay mechanics is based around Cooperation, it offers tons of possibilities to control the pacing curve in pretty much any way the level designer likes. A typical Left 4 Dead campaign is split into five levels in which each ends with a big fight. The end of each campaign usually has an extra dramatic final battle right before the safe room. This works very well as the dramatic battles tend to put a lot of pressure on players thus creating a nice climax at the end the chapter. Each level is between 8 to 15 minutes in length.



A simplified hypothetical chart of a Left 4 Dead pacing curve. Y-axis shows excitement and the X-axis time in minutes.

Valve has introduced "the director" which is basically the game logic that controls the zombie attacks frequency as well as infected, and special infected, placements. According to Valve this system calculates the number of infected each attack and frequency on the attacks based upon the players accuracy, health and overall skill level. This creates a more fluent experience for the player.

Conclusion

Even though the three game types have many similarities, they differ a lot when it comes to pacing in multiplayer. So what conclusion can we draw from the study of these three action games?

The pacing curve for Deathmatch is seemingly random and could be compared to many real-life competitive games such as soccer or basketball. This is because both teams are playing on equal conditions and have the very same goals. At any time the players could score, hence the randomness. Deathmatch has been popular for a very long time both by professional and casual gamers.

Because of the bomb and hostage scenarios, Counter-Strike has stronger narrative than Deathmatch. It is also far more competitive since it has very clear victory conditions and its round-based nature the game naturally creates a build-up and a climax each round. It has also been the number one competitive game on e-sport events around the world for more years than any other game.

If one wants to have control over the pacing curve, the player's opposition and goals has to change over the course of the game. Left 4 dead has so many rules that control the flow of the opposition that the pacing curve can almost be exactly what the designer wants it to be; this is true for coop experiences as well. In addition to this, Left 4 Dead with its player versus player mode has definitely taken a step in the competitive direction (player versus player) but hasn't been picked up by any professional gamers. My question is: Can you make experiences with a strong narrative and still have them be strictly competitive?

But what about when you are making a game yourself and shipping both single player and multiplayer in the same box? How will the multiplayer pacing curve work together will the single player? Will they be similar, or are you focusing on different target audiences with the two? Should they perhaps even be sold separately? If your studio and IP is strongly related with good narrative, a linear experience and a controlled pacing curve, then perhaps you shouldn't be adding Deathmatch (that has such weak narrative) just because people nowadays want multiplayer. Perhaps there are other games modes that would work better?

What would happen if one chooses a curve for multiplayer before designing the core gameplay mechanics? What sort of pacing curve could attract a specific target audience?