Games Lab 2017 – “Together” 🦀

Pitch/Proposal

**Overview**

Summarized in one sentence, the game is a cooperative networked dungeon crawler enriched with native virtual reality support.

Our initial idea was essentially Dungeon Keeper x Diablo, where one player is the dungeon master overseeing the dungeon, able to manipulate it and provide support to the units below, while the other players portray the hero units on the ground, fighting foes or completing tasks.

**Gameplay**

To get into more detail, there is the Master and the Crawlers.

The master overlooks the dungeon and can see the entire map at once. They can support the crawlers with direct buffs or enemy debuffs, by altering the structure of the dungeon or by guiding them with gestures. To make these actions more immersive and exciting – as the master cannot directly attack foes and requires another way of keeping the player engaged – the master perspective is realized using a virtual reality headset in conjunction with motion tracking of the player’s hands. This way the accuracy of gestures, support item placement and dungeon navigation is directly related to the actual movement of the player and gives a much better feel of being the “god-like” entity inside the game.

Meanwhile, the crawlers are the heroes on the ground, playing from a traditional dungeon crawler perspective centered on themselves. They are tasked with defeating foes, operating interactable structures, reaching certain locations, collecting loot and similar. They can only see their immediate surroundings and may be at a disadvantage when engaging enemies alone. There are several crawler classes with different skillsets and a squad of multiple players will ideally pick different classes to complement each other’s strengths.

The interaction between master and crawlers is where the lab theme “Together” finally kicks in. Each of the two has certain weaknesses that require the support of the respective other to alleviate. The master can see the entire map, but not every enemy from their overlook position. The crawlers on the other hand cannot see the entire map at once but will see any enemies in their line of sight. So, a crawler can spot an enemy for the master while the master can gesture where the crawler should explore. The master cannot directly attack foes, and while the crawlers can, there will be enemies too strong for a single or maybe even multiple crawlers to defeat on their own. To this end the master can buff the crawlers or nerf enemies and the crawlers can come together as a group to take on larger threats. Additionally, the master may change some walls and obstacles in the dungeon to open up new ways for the crawlers if they cannot reach a specific location on their own. Additionally, in order to balance the master as well and avoid setting them up as omnipotent, the master skills are dependent on resources generated by the crawlers, be it through winning fights, collecting loot or other strategic actions.

Overall, each party needs the respective other to have a high chance of surviving and completing the goal.

Due to the scope of the project and the tight schedule, the game will not offer vast dungeons or deep skilltrees. Instead, the focus is on brief matches with clear goals, akin to a roguelike/rogue-lite. Another reason here are the technical and physical limitations of the virtual reality setup. We anticipate that the typical master player will have at most up to 2m x 2m of space, possibly just a seated desk setup, so the dungeon has to be small enough to fit into those bounds while still being viably close to the virtual camera to recognize detail. On top of that, virtual reality sessions should not be stretched out too long to prevent nausea, motion sickness and other physical discomfort. However, through the combination of different crawler classes, the dynamic of master and player interaction as well as the design of our dungeons we still expect players to have a different experience every time they play.

**Dungeon Setup and match flow**

As noted, in order to keep the match duration accessible and due to limitations of the master setup, the dungeons will be relatively compact and small. In each level, the crawlers start out in randomized locations while the master always starts from the same overlook position.

As the match progresses, the crawlers will need the guidance of the master and the other crawlers’ help to find each other, defeat enemies encountered along the way and eventually reach the exit of the dungeon, be it through a boss fight, exploration or other. To increase the challenge, new enemies will pop up and on top of that, the dungeon is not inherently fair to the crawlers in that there will be tasks and foes they cannot overcome without the help of the master and each other. We do not like to force cheap artificial limitations on each player beyond traditional skillsets, so designing the dungeon to promote teamwork seems like the most sensible way.

Once one dungeon is completed, the game loop will start anew in the next – randomly generated - level.

**Technical details and challenges**

From the gameplay and setup description it should be clear that there are three main technical challenges to tackle to achieve our goal.

1. Procedurally generate interesting and different dungeons
2. Set up stable and efficient networking between all players
3. Set up and tweak virtual reality with hand tracking (Oculus Rift CV1 + Touch, Vive)

**Next steps**

1. Prototype networking in a sample level with at least master and one crawler
2. Prototype procedural generation algorithm (e.g. Cellular Automata)
3. Prototype VR perspective and tracking
4. Design skillsets, crawler classes
5. Playtest, Playtest, Playtest
6. Balance, Balance, Balance
7. Polish, Polish, Polish