

We will title this game idea “Continuous Deformation” for now. This has the potential to be an educational horror game. The player, named Grace, is in a 4D manifold of unknown Hausdorff topology (3 spatial dimensions, 4th dimension is time - which could loop around depending on the topology - which is randomly selected from a set of starting topologies). Note that crucially, time participates as one of the dimensions in this 4D manifold. ALSO, note that time, independent from the player’s movements, naturally moves in one pre-selected randomized direction (it might make the players’ actions loop back naturally too depending on the topology, effectively making the player “stuck” in an infinite loop). The player can connect powerups that let them continuously bend and stretch their reality to perceive it in different ways under the same topology. The player's objective is to find scissors, glue, on the map (which could disappear to any dimension being made non-compact/compact or become accessible due to the topology becoming disconnected. Note that scissors can also be used to poke holes in the world to make the world not compact anymore) to eventually alter the topology of their world to be equivalent to the whole unbounded 4D Euclidean space (again 3 spatial dimensions, 4th dimension is time), so they can freely explore and find their home (or an exit portal back to normal reality) that is located at an area with all four coordinates having arbitrarily high absolute values (note that the 4th coordinate is time so the player might have to wait a while too - they could check for looping in time to see if time dimension is configured properly, otherwise scissors have to be used yet again). Have the player here be canonically a girl named Grace.

Also, suppose in this game the 4D manifold does have Grace’s usual college life encoded in it (including the dimension time too) - and also other characters like her friends, her family, professors, etc. could potentially hide/provides resources like scissors, glue, or glasses/goggles and also be affected by the 4D manifold in the same

way. Also, let the goal instead being finding the objective coordinate (a coordinate arbitrarily/infininitely high in absolute value of all 4 dimensions including time that is only accessible if the world's topology is back to unbounded 4D Euclidean space) to Grace can wait and finally find her ideal partner/boyfriend/connection she was longing for the whole time.

Note that in particular the time dimension is made disconnected, then Grace will die before she gets to the arbitrarily high time value.

If implemented, this would make for a very rare game that is both a horror game and educational.