Hide-and-seek is a game that is fundamental to our survival as a species. It teaches us how to both hunt for food, and how to avoid being hunted. At its heart, Minecraft is very similar to hide-and-seek. It is a game that teaches the basics of human survival. On the surface, it is not a traditional computer game. There are some head nods to things like achievements and points for killing enemies, but there isn't a leaderboard, there isn't a real goal, there wasn't even an end to the game until two years after it was released. However, despite not being traditional, Minecraft is very much a real game. It has a well defined set of rules to learn and follow, meaningful decisions that arise from uncertainty, and there is a high level of involvement. At the start of the game players need to make a shelter if they wish to survive the night. Not too long into the game, players will need food or they will go hungry. Players also need to arm themselves so that they can defeat creatures that wish to kill them. All of these are fundamental ideas for humans; food, shelter, and protection. Minecraft isn't just about building a 1:1 replica of the Starship Enterprise, it is about being a human.

The world that Minecraft provides is huge, both in terms of the play area and in things to do. At the same time the rules are straightforward and fairly consistent. There are some oddities with the physics, for example only sand and gravel are affected by gravity while all the other blocks are free to float in mid air. Players are able to manipulate the environment around them, with the exception of bedrock.  Players can combine things to build new things (the "craft" part of Minecraft). When wood is combined in a certain way, wooden stairs are created. If cobblestone is combined in the same way, cobblestone stairs are created. Crafting sounds simple, but there are 180 recipes that players need to know if they want to craft everything. There are many more recipes when you consider that, with the stairs example above, there are also brick stairs, rock stairs, sandstone stairs, quartz stairs, and Nether brick stairs. Chunking plays a role here in managing the recipes since, regardless of the material, the layout of the recipe is the same. Unfortunately there is not much affordance in the crafting system. Sure, a wooden stick and a bit of iron can make a shovel in real life, but having to put the iron on top and use two wooden sticks doesn't mimic real life well enough to translate to the game. The downside to crafting is that, while the system is simple, in order to figure out most of the 180 recipes, players either need to have another Minecraft player tell them how to craft it (my son takes great pleasure in helping his confused father craft things) or players need to look at websites that give them recipes, both things that break immersion and flow.

Minecraft does an excellent job of presenting a complex world based on a few fundamental rules. The simplicity and consistency of the rules allows for a very simple UI that is a mix of non-diegetic and meta pieces. For example, the hot-button bar, the crafting UI, and the inventory UI, all appear outside the game world. For the most part the UI tends to fade into the background, only to be forced into view when something important happens, such as when the character is hungry or they take damage. Players are notified of health events by a signaling hierarchy consisting of having the screen jump around, playing a sound, and having the health and/or hunger bars flash. This in your face UI works very well because players need to be alerted to low health and starvation because both can lead to the death of the character. This relationship to hunger and health provides a strong link to the hide-and-seek survival underpinnings of Minecraft.

My time in Minecraft has mostly been spent at the surface, building a home, and landscaping the surroundings. The day/night cycle is important as Minecraft nudges the player to stay in safe

areas by making most of the hostile creatures spawn at night. In keeping with a set of simple rules it isn't that creatures spawn at night, it is actually that they spawn in dark places, regardless of the time of day. If a player builds a house but fails to provide inside lighting they may be surprised when creatures spawn inside their sanctuary. If players venture into tunnels without putting torches on the walls they will likely be attacked. Minecraft uses the dark to gently keep players in the safer areas until they are better prepared with armour and weapons. Players are also informed of their safety through the signalling hierarchy.  In addition to the flashing of UI elements, and the jumping of the screen, sounds, such as arrows whizzing through the air when a skeleton attacks, the moans from nearby zombies, the "skitch" of approaching spiders, and the hiss of soon-to-be-exploding creepers, are also used to alert players to dangers.

Minecraft is a game with a huge amount of agency, at every point in the game you can take meaningful actions. Couple the agency with the sound effects which are not only moans and groans but include events such as rain, thunder and the accompanying visuals, and players are presented a very immersive experience. Once the UI melts away, the player is left with presence, the feeling that they are truly part of the game. I think this is why it is so easy to get lost in Minecraft for hours at a time when simply trying to create a house, a tunnel, or removing a river. The ability to enter into a state of flow, where everything just clicks is incredibly easy in part because of presence, and in part because of the instant gratification, at a micro level, of being able to shape the world almost effortlessly. There is always one more block to remove or place, one more animal to hunt for food, or one more item to craft. These tasks give the brain a sense of accomplishment, and a desire to do that "one more" thing.

The primary mechanic is digging, and the game primes players for that, sometimes to their own peril. If a player isn't careful when they are digging they can easily fall down a chasm and die. The world is filled with various types of blocks, stone and gravel are often found next to one another, however they require different tools to mine them effectively. The UI provides players with enough localized information that they know when to switch between a pickaxe and a shovel. Mining in the game reinforces multiple behaviours. As players mine, they obtain crafting and building materials. As they build, they achieve security and a sense of accomplishment. As they explore to find new places to mine, they encounter both predators and prey. The crafting process makes heavy use of intrinsic motivators, as players mine better resources they are able to create better tools to mine faster and stronger weapons and armour to last longer in the world, which, of course, enables them to mine more.