# LIVING IN VIRTUAL LANDS
## *SOME REFLECTIONS ON VIRTUAL GEOGRAPHY*
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Virtual environments, or 'virtual realities' as they are popularly known, constitute our world and identity within technology almost as much as technology constitutes our reality. Through the interface screen of a high-speed computer, virtual reality projects us into a virtual 'world'. Though we tend to think of games played on the computer as a unique example of a virtual environment, there are many such interfaces, as may be found in banking, online forums for teaching, webinars, computer-simulated training systems, telepresence surgery and even virtual corporations. But the fast-growing world of computer games captures for us many interesting aspects of a virtual world, and is also perhaps one virtual phenomenon that many ordinary people participate in every day.

Three key features of virtual reality as described by Heim (1998) – immersion, interactivity and information intensity – are integral to the technology of computer games.[1] We can understand these features as a set of relationships between an identity (i.e., the virtual self) and the virtual environment within the game, determined by the real player sitting at the screen. The real player projects herself into the game through *immersion*. Immersion is a process by which one projects oneself out of this body and into the virtual world by isolating certain senses (particularly the visual and the auditory) and body parts (hands and fingers). In simpler terms, it refers to a state of being so involved with a game that one forgets the physical world. While immersion – such as in an art work or while reading a book – is a common enough phenomenon for any human being, virtual immersion,

particularly "tactical immersion" (Adams 2004) has some unique features.[2] A good game, immersively speaking, not only allows you to project yourself within it, but also provides a set of feedback loops for the game to respond to your virtual actions and instructions. Certain senses, such as the visual and auditory, are acutely used, while others, such as the tactile, are completely absent. In the absence of a tactile body that negotiates the everyday geography of our world, it is interesting to see how some online games replicate the process of a virtual self negotiating a virtual geography. Not only that, games that require a player to play as herself, i.e., as a character in the game narrative, have to create an entire world for the player to engage with, one capable of capturing and retaining her attention over time, again and again.

This essay takes a look at the projective world of online video games based on the author's own experience of playing a popular virtual game, *CastleVille* (henceforth referred to as *CstV*).[3] This game is a type of the fantasy genre, described by Dovey and Kennedy (2006) thus:

> The fantasy genre can be characterized by this sense of authorial and reader attention devoted to the detailed realization of the imaginary world and all its features at the expense of narrative tension, character development, relationships or subjectivity. This culturally determined attachment to the topography of imaginary worlds can be found deep at work in the design and manufacture of computer games to this day.[4]

Such games rely on "narrative immersion" as Adams calls it: "[a] player gets immersed in a narrative when he or she starts to care about the characters and wants to know how the story is going to end". The stories are replete with game elements that are visually rich with lots of game properties relevant to the narrative. There are at least two love stories in progress in *CstV* as subplots. One of the first pre-requisites of this type of game genre is the way one is allowed to enter this imaginary virtual world as a virtual self.

**Avatar: Projections of the Self**
Real players must somehow enter into the virtual world or immerse themselves in the game. This is not only a question of having superior technology that allows this to happen, but also requires the willing intention of the game player to suspend involvement in her physically embodied state. As Hillies (1999) suggests:

> … users [must]… in Cartesian fashion… imaginatively set their bodies aside to enter a virtual world and in a sublatory, almost re-medievalised fashion, merge with the display.[5]

The virtual projection of one's self into a gaming self is called the 'avatar' and happens through either a first person immersion or through an on-screen cartoon-like representation. While some games have fixed characters that players can embody, others allow a player to enter the game as an individual self. The on-screen character in such cases is customisable to a certain extent, which typically includes choices regarding gender (mostly of only two kinds), skin tone, body type, hair, clothes and accessories.

This virtual self that is the projection of my avatar on the screen is controlled by me through both the keyboard and more particularly the mouse, which acts as a sensory neuron in click-and-point type games. The feedback information to the real player is provided through a single-sense perception that is visual input. The real player in the real world becomes a part of the input of the virtual self, using her hands and the synaptic pointing device to click the character into the direction for movement or turning or facing. This intervention of the player self on the game self is spatially oriented by the virtual world on the screen display.

The continuous coding-in of the game player creates a sense of being in the game landscape. In games where the first-person view is replaced by an overview, a sense of detachment prevails. The avatar is an extension of oneself, a player in the game world, but one is not completely the avatar. Players, however, tend to refer to themselves as agents of the game. I find myself saying, "I have to harvest my crops and feed my sheep" (virtually, is what I actually mean).

**The Virtual landscape: Projections of Geography**

> A new emphasis on space rather than time has been one of the characteristics of New Media Studies – the importance of space for using and understanding computer media.[6]

The surface of the virtual world is essentially flat with three-dimensional images of the various elements laid on the basic surface. The landscape of these games is flat with no indication of slopes. Mountains or cliffs are used only as the background in the sky area and not the playing area. I suggest that this is like a tabletop model of the virtual universe viewed from an angle of a person seated at a slight height from the table. This view of the game universe is not a first person view from the ground nor is it a view from high above, like a god's eye view. Instead, like an architect's model on a table viewed from a few feet above the surface, it is partially a top-down view and partially a view from the side. This brings in a certain element of reality to the game that allows the player to keep track of the avatar inside the game and at the same time experience the notion of a real world where taller things

block our view of smaller things behind them. Vivek, who is a software professional, had this to comment:

> One of the main reasons they use the desktop-like view is because this is 3D Isometric projection: there is no perspective, and heavy 3D calculations are not necessary – it is simply a 2D arena with things drawn skewed. In the 1980s, many of the 3D games on 8-bit computers used this technique.[7]

The basic surface of the virtual world is a grassy plain that allows random courtyard elements such as mud, cobblestones or charred ground to be overlaid on it. The borders of these surfaces are not clear lines, and they project a sort of natural uneven surface. Clearer surfaces, like tiles or pathway sections, create neater surfaces with lines.

The visual richness of various elements of the game is overlaid on the basic landform. Objects like trees, rocks, grass, ponds, rivers and bushes are some elements of the natural world projected virtually (see fig. 1), and there are three-dimensional walls, fences, decor items, houses and buildings that are the possible constructions. There are different variations of these elements, some of which yield resources (wood from trees, for instance); others are merely decorative. There are regular animals like chicken, sheep, goats, cows and, especially in the case of *CstV*, mythical creatures like unicorns, gremlins, Halloween spirits and phoenixes. One of the important overlays is the basic 'farm plot' that creates a virtual farming area in the kingdom. It helps the virtual self plant, harvest and gather crops that can be made into food, potions and other magical items. Very reminiscent of a foraging civilisation, the bushes yield berries, ponds yield fish, wells yield water and so on.

FIG. 1: Tabletop Projection Landscape



Objects rising above the surface

Rocks

Trees

Table Surface
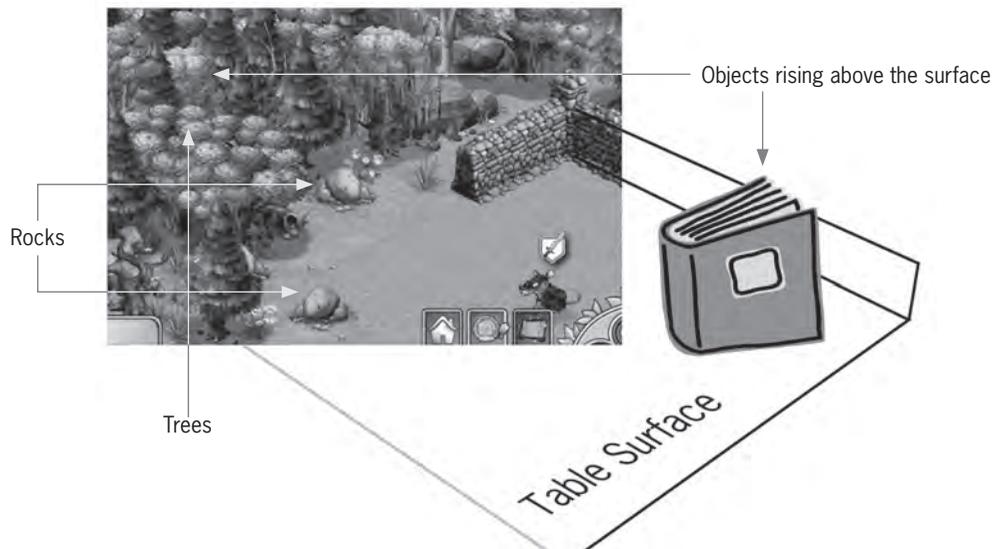
The game also generates its own subjects or non-player characters (NPCs) like George the Miner or Mia the Cook, as the play area expands. They become permanent denizens of one's kingdom and allow the player to perform different tasks that are called quests. The characters with quests are shown with a *question mark* pop-out symbol above their heads (fig. 2). When the quest is revealed, speech bubbles and dialogue or task windows communicate in words the various goals within a task.
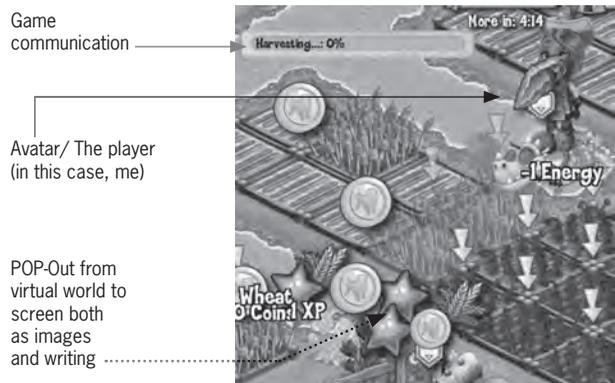
FIG. 2:
*Non-player Characters*

In fact, the pop-outs form a projective medium to link the real player to his virtual world. The game uses pop-up windows that it projects from the virtual world into the player screen surface to communicate with the player, who then clicks on the landscape and, in a simple mouse-over action, pings them into the virtual inventory (fig. 3). When collecting resources (like wood, crops, wool, milk, crafted items) and game elements (houses, decor, potions and gifts), a very audible ping, swish or other sounds are used to indicate the nature of the object collected. Pets also make sounds for attention. The background natural chirpings of real birds, sounds of water, the mutterings and hummings of the NPCs, workshop clangs and the magical noises of bad minions such as gloom wolves, rats or goblins also tend

to add to the immersive experience. The visual richness of this particular game has a Disney-like feel that must account for its popularity. For instance, when I am playing the game, people stop to admire the visual images on the screen that have 'cute' value.

Most of these elements that can be *placed* on the playing landscape are rotatable along the vertical axis and also have two different perspectives that we can see on the screen. An interesting projection of the behaviour of real animals is that the game grants autonomy to virtual animals to wander around randomly within the playing area if they are not fenced in. The placement of these elements on a landscape is determined by the space a particular virtual object can occupy. That is to say, only one virtual object may be placed at a particular virtual spot at a time. Each of these elements also possesses variable areas that they occupy on the virtual surface. When a player tries to place these virtual elements on top of each other, messages pop up on the screen explaining that there is no space for the object to be placed. The object appears with a deep red aura which changes to an orange outline and glows when there is possibility of placing it.

FIG. 3: Pop-out from Virtual to Screen Surface

Game communication

Avatar/ The player (in this case, me)

POP-Out from virtual world to screen both as images and writing

YOU CANNOT PLACE IT HERE BECAUSE THERE IS ALREADY SOMETHING HERE

YOU CANNOT PLACE AN OBJECT IN THE GLOOM

YOU CANNOT PLACE IT HERE BECAUSE THERE IS A CHARACTER IN THE WAY

YOU CANNOT PLACE IT HERE BECAUSE YOU ARE IN THE WAY

The basic green grassland surface is the *tabletop surface* that is capable of overlays of other virtual objects. The player first begins with a limited area to play with and numerous adjoining areas that are potentially available. She earns her right to *expand* to these areas by achieving game goals (creating exploration crystals or undertaking special quests) or buying expansion using privileged money (called crowns, which can be bought online for real dollars). So, within the virtual world, the amount of landscape available for playing and placing one's virtual elements is dependent on crossing levels and completing tasks. In *CstV*, the non-playable areas are covered in 'gloom', and are projected as darker, unclear surfaces without light. Once an area is 'explored', the area shows up in bright colours and is more clear. The landscape and elements can be manipulated. The avatar, however, can walk into the border areas of the unexplored landscape, if required to move across it.

The plasticity of the placement of elements in the virtual world is good enough to give the player a dictator-like status over the lands under her command. And the actions of the NPCs and other elements make the game restricted enough to keep the player interested. Games that rely on obstructions (like *Mario* or *Captain Claw*) have devices and powers (super jumps), where crossing such obstructions is the very goal of the game. In the typical, early, virtual-landscape type of narrative game, avatars tend to flash into the game and seldom exhibit real-world problems of getting around on foot in their virtual worlds. In today's virtual-world games of the fantasy genre, like *CstV*, the avatar traverses across the virtual landscape in the way a real person would make her way around obstacles and be obstructed by them. Sometimes the planned and unplanned landscape and buildings block or obstruct the player from randomly walking around the virtual area. My own avatar got fenced in along with my sheep and stayed in that enclosure until I unfenced a part and clicked the character out. In another case, the avatar was unable to cross a bridge when one of the NPCs was standing on it. The virtual self in *CstV* creates pathways across buildings, around *fenced* area and uses the bridge to go across rivers.

Our embodied condition in the real world makes possible things like orientation, focus, zoom in or zoom out, peripheral vision, etc. Our body in the real world encounters restriction to movement, hidden–from–view objects, blocked noises and all other kinds of obstructions. While the game

GLOOMED AREA
Click to Explore

FIG. 4:
*Gloom Areas and Playable Areas*

replicates geographical obstruction virtually, in terms of movement for the avatar self, it creates an alternative view for the real player, where the obstruction is visual on the screen. Small animals tend to wander off *behind* buildings; taller buildings obstruct low-height houses; trees can block vision. The zoom in and out is an option for creating details that the player can enjoy, and the mouse can drag parts of the playing surface into view.

The planning of the landscape has plenty of choices for the player, and so each player can almost create a unique landscape of his/her kingdom. New players slowly learn to work out and plan their kingdom's layout to enable visibility, movement and non-obstructive pathways for the virtual self. The idea is to have functionality and aesthetics and to create a 'good-looking kingdom', which also has the possibility of winning game goodies in a 'kingdom of the week' contest. An important feature of this game, therefore, is the move, place and rotate function button on the player's console (see fig. 6). Players tend to first replicate real world planning in their initial attempts, setting up ideal gardens, keeping crafting areas away from their housing areas and laying out orderly or disorderly nature areas. As the player gains experience, the functional requirements result in fenced-in animals, crowded houses in rows with minimum empty space or arrangement of elements by type (all ponds together, all trees together and so on).



FIG. 5: Virtual Self Blocked from Crossing by a Pet Dragon

## The Virtual Timescape: Time is Money

The projection of time in the virtual world cannot, unfortunately, be a different time. The game time-intervals are real-time for the player (who in fact invests her real time in the game). Time in the virtual world is the time taken to perform tasks, harvest natural products, craft goods, visit neighbouring kingdoms, wait for things to grow, mature and be ready for collection or use as animal fodder. What one would notice is that the instructions of the real player given by click and point are temporally queued up one by one and executed almost instantly by the game. A small bar keeps track of the percentage of tasks done (see fig. 3, the bar that says 'Harvesting'). But tasks to be performed by the game take their own specific time. Though all this is measured by the same time as in the real world, the projection of virtual time is, however, established in the virtual world by compressing the time required for various activities. Crops grow in hours instead of months; it takes about an hour to craft simple things and about eight hours for complex ones; and animals become adults after a few feedings. There are, however, some sops in this fantasy virtual world. Take the case of crops, for instance: game power-ups like fertilizers, irrigation, etc., speed up the crops and, particularly in *CstV,* magic spells can give instant or five-second results. Neighbours who visit you can speed up your crafting buildings. The buildings display a small clock with shaded segments to indicate how much time is left. The use of these symbols in the game is prolific – arrows, clocks, question marks, swords, clocks, mini-versions of crafted goods like stone blocks or cupcakes, neighbour icons – all of which are used to convey game status and possible actions to the game player.

The most complicated of all these projections is the idea of game economics, which is intrinsically related to time. Time becomes an interesting resource for the real player in the virtual world. The online company wishes the player to log in and play the game as often as possible. Therefore,

*FIG. 6: Console to Place and Move Elements*

the game uses energy renewal to link real time to game play. The energy is a strange token that converts a combination of time, money and the ability to perform game tasks into a single usable currency. One can receive it as test-tube potion gifts from activities or on visiting neighbours. The inventory can only hold 15 units. Energy units are required to perform actions in the game, and the game generates one unit per five minutes, up to a maximum of 25 units. The energy is represented by a lightning bolt in the statistics console at the top of the playing area. Since there is cap limit of 25 on the statistics bar and of up to 15 units in the inventory, ideally a player can log in every two hours to use her full energy.

The narrative progresses forwards in time. The avatar performs actions using energy from the store, but once performed or used up, the actions cannot be undone. But actions queued for execution in the game can be cancelled. As in the real world, we have the choice to change future action plans but not past ones; the game projects this temporality into the virtual world.

*CstV* has many other types of tokens and currencies a player can hold. Everything is displayed in the statistics bar on top of the play area (see fig. 7). The game money is available as resources from taxing houses, selling goods and performing tasks within the game. Everything in the virtual world yields coins or saleable resources after time intervals. These pop out as golden coins and have to be clinked into the inventory. One can buy some non-premium items in the virtual market using these coins.

The levels of the player are also reflected in two ways. The XP point, or 'experience point', a blue star gained for every task performed, reflects the amount of time the game has been played. If I log on to the game and, like a typical addict, spend time every two hours using up my energy, I can make about 100 XP points a day. The XP level is the virtual age of the game player, recording her every action. After achieving a certain amount of XPs, one jumps levels. As the levels increase, the number of XP points needed to cross to the next level increases. Since XPs can be gained through repetitive actions, the levels do not indicate quality achievement. The actual game points in the narrative are represented by 'castle points'. The actual progress of one's kingdom is reflected by the number of royal buildings or royal items one has. Each royal component gives castle points; the more castle points, the greater a monarch you are. The castle points are linked to these objects being *placed* in the playing landscape. Selling royal items or storing them in the inventory can knock off a few points from one's score.

The peculiar nature of the games linked on Facebook creates game-neighbours. You can invite Facebook friends to be your co-players in the game and post game-updates on their walls. Performing a maximum of five tasks in a neighbour's kingdom allows one to earn reputation points, energy and some game resource items, some of which can be bought only with reputation points. Aptly, reputation points are represented by plump red hearts. The cap-limit on this

currency is 100 hearts. Some potions and crafted goods also yield reputation points if used.

The medium of exchange between virtual and real money is a privileged currency called a *crown*. While free users of the game are rewarded a single crown for every experience level they cross, premium users can buy crowns online by paying real money. Many times there are two level sale announcements. "Buy more virtual crown-money by paying less real money at fabulous exchange rates". Or alternatively: "Buy virtual goods at 50 percent off by paying only half price in crowns". Being rich in the real world will allow one to buy crowns and be rich in the virtual world too.

We find that these and other games of this kind are a confluence of player imagination and capabilities, and the intent and capacities of the game designer. What is interesting is the projection of these intentions in a virtual world through time, space and commercial interest. No doubt, there are people who scoff at these games as silly and beneath academic interest, but statistics show, for instance, that there were approximately 37 million players globally, playing *CastleVille* during January 2012.[8] It is important, therefore, to start thinking about the implications of this for our world and our understanding of these imaginative virtual worlds. ■

FIG. 7: Statistics Bar
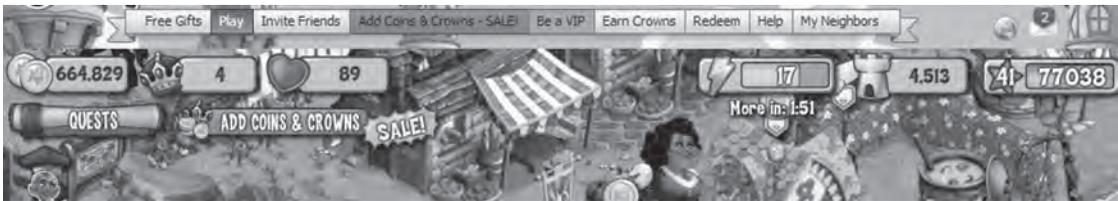


SCREENSHOTS FROM AUTHOR'S GAME PLAY ON ZYNGAINC.'S *CASTLEVILLE*, 10 DECEMBER 2012

**Notes**

1   Michael Heim. **Virtual Realism** (Oxford University Press, 1998, New York), p. 6.

2   Ernest M. Adams. "Postmodernism and the Three Types of Immersion". In **Gamasutra**, 9 July 2004. Available at: http://www.designersnotebook.com/Columns/063_Postmodernism/063_postmodernism.html (last accessed 10 December 2012).

3   CastleVille is a popular Zynga game played through Facebook and set in a magical-cum-mediaeval time. The player rules a 'kingdom' with a few subjects, and achieves tasks to thwart the evil Gloom Lord, Faugrimm. The game is a freemium game, which means basic play is free. There are, however, many premium items and game features that can be unlocked by the privilege of virtual money, purchasable through the company. The game relies on the addictive nature of players to entice them to buy its premium features.

4   Jon Dovey and Helen W. Kennedy. **Game Cultures: Computer Games as New Media** (Open University Press, 2006, Maidenhead, England), p. 95.

5   Ken Hillies. "Toward the Light". In (eds.) Mike Crang, Phil Crang and Jon May, **Virtual Geographies: Bodies, Space and Relations** (Routledge, 1999, New York), p. 32.

6   Dovey and Kennedy, op. cit., p. 93.

7   Vivek N, my brother, is a freelance software professional who gave me a technical perspective on this in a personal mail. (Personal communication, courtesy of the author.)

8   Brandy Shaul. "CastleVille passes FarmVille to become second biggest game on Facebook". From Games.com news. Available at: http://blog.games.com/2012/01/03/castleville-passes-farmville-second-facebook-game/ (last accessed 10 December 2012).