

# A Social History of Virtual Worlds

Virtual worlds like *World of Warcraft (WoW)* and *Second Life* are a cultural and social phenomenon in North America and throughout the networked society. *WoW* is a virtual world where players assume a character and join other players to campaign and quest in a fantasy-like world of orcs, trolls, gnomes, and elves. Some virtual worlds like *WoW* contain a role-playing game at the core of the experience in which large numbers of players interact. Game-like virtual worlds are classified as Massively Multiplayer Online Role-Playing Games (MMORPGs). *WoW* is the most popular MMORPG, with ten million players paying a monthly subscription to play the game.<sup>1</sup> Virtual worlds such as *Second Life*, *Active Worlds*, and *There* have similar features to MMORPGs, but at their core they do not contain a game (although games do exist within these virtual worlds). Virtual worlds that are not games are considered to be social virtual worlds. *Second Life* is the largest social virtual world at the moment, with over fifteen million registered users.<sup>2</sup> Of the three social virtual worlds mentioned here, *Second Life* will be the focus of this report, as it is currently the most heavily populated, is cross-platform, and has a large community of librarians and educators.

## From Text-Based Games to 3-D Social Virtual Worlds

Since the creation of the first text-based virtual world in 1979,<sup>3</sup> virtual worlds continue to captivate a user base that is co-evolving with the technology to the point that players are just as likely to raid an enemy territory with their guild (a cooperative group of players) as they are to help a library patron find online pedagogy resources from a virtual reference desk. Originally developed as text-based

games capable of serving only a handful of users, virtual worlds now feature persistent 3-D worlds with graphical user interfaces providing the ability to interact with other people and objects while experiencing immediate feedback within a world inhabited by millions of users.

According to Betsy Book, both game worlds and social virtual worlds share five common features.<sup>4</sup> Virtual worlds are *shared spaces* used by many players at the same time. Virtual worlds contain a *graphical user interface* that depicts space visually. Interaction in virtual worlds occurs in real time; users experience *immediacy*. Virtual worlds allow users the ability to alter the world they are in; the space is *interactive*. Finally, virtual worlds are *persistent* worlds; the worlds continue even when a player logs out or quits a game. Book's classification is useful in identifying the similarities between gaming worlds and social worlds, but she ignores both the social and technical evolution and co-evolution of the users of and the technology of virtual worlds.

3-D virtual worlds as they exist today evolved from a lineage of multi-user text-based games played over TelNet dating back to 1979.<sup>5</sup> Although many variations and breakthroughs have occurred since 1979, five milestones can be used to summarize the history of virtual worlds:

- Multi-User Dungeons (MUDs)
- TinyMUDs
- MOOs (Multi-User Dungeons Object Orientated)
- MMORPGs
- 3-D social virtual worlds.

Virtual worlds are an evolution of computer programs that were first known as MUDs (figure 1). Dating back to 1979, the first MUDs were text-based, and the interactions,

environments, and communication all occurred without graphics. These words were used to describe encounters between the user or player and the virtual world:

To the north a cobblestone path stretches out towards what appears to be an ancient battlefield. Along the path wilted trees corral a dense fog as the winds gust with voices of fallen warriors.

Players navigated through the MUDs with text commands such as "/walk north" or "/open" to open a door. In text-based MUDs, directional cues such as north, west, south, and east were used to navigate through the virtual world. The directional cues were so precise that a user could construct a map on paper to get a physical sense of the world. Players of the early MUDs connected with TelNet and would log in and participate in adventures or quests like killing dragons or defeating evil wizards. MUDs were designed to give players a set goal (kill the dragon), or purpose, like to save the princess, and a user's actions were typically task-based. Most of the early MUDs were fantasy or medieval in nature.<sup>6</sup>

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tux.cs.drexel.edu - PuTTY
Welcome to Realm of Despair, Thartos...
You were last online on: Mon Jul 9 03:03:11 2007
The Lounge
This cozy lounge lies directly above the Western Hall. A warm, circular
fireplace in the middle of the room burns brightly, and a spiral staircase
next to this leads downward into the main hall. A bookshelf dominates the
eastern wall, while a sofa rests beside the fireplace and a love seat sits
in a far corner. The lounge is usually a very quiet place.
Exits: north east west down
The circular fireplace illuminates and heats the room.
Sammy lol u tk him 2 da bar(?) is sitting here. [Ice]
Gallant Lao'ngun-ur <Leader, Guild of Retired People> is sitting here.
[Hide] COVER the Avatar is standing here.
Fangsynance the Avatar is hovering here.
Dekkech the Avatar is standing here.
Mekir Shadowfire, Tempest of the Swarm. [Elder Core|CDS] is standing here.
Alihan's Pizza Service is owned by Alihan [EFF-U!] is hovering here.
[AFK] (Translucent) Gandalf the Gay <Leader, Guild of Retired People> is standi
g here.
You have 2 mail messages waiting for you.
<006hp 398m 690mv> <New Darkhaven|HT|9,694,739> <> sc
Score for Thartos DarkBlood.
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LEVEL: 50      Race : Drow      Born on: before The Shattering
YEARS: 3735   Class: Mage      Log In: Wed Jul 18 17:58:00 2007
STR : 16(12)  HitRoll: 61     Saved: no save this session
INT : 24(16)  DamRoll: 89     Time: Wed Jul 18 17:58:03 2007
WIS : 20(14)  Align: +0223, noble  Played: 7436 hours
DEX : 20(17)  Wimpv: 0        Devoted: 3735 years
CON : 14(12)  Armor: -0480, that of an avatar
CHA : 09(09)  Pos'n: standing
LCK : 14(14)  Style: evasive   Path: Path of Destruction
Items: 00001 (max 00019)
Weights: 00191 (max 000195)
Frect: 111    Hitpoints: 806 of 1304  Regen: 1.3 5 AutoEat(X)
XP : 147528219  Mana: 398 of 1468  MKills: 19004 AutoLoat(X)
Gold : 9,694,739  Move: 690 of 690  Mdeaths: 00099 AutoSac(X)
Bank : 0
You are starving to death.
You feel great.
-----
PKILL DATA:  Skills (017)  Assisted Fkills (000)  Pdeaths (033)
Deltv:  Firebaen  Favor: loved
<006hp 398m 690mv> <New Darkhaven|HT|9,694,739> <>

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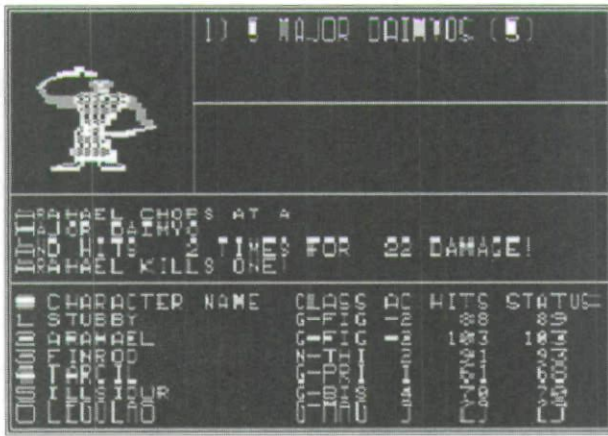
Figure 1

Interface of *Starcraft*, a popular MUD. The top of the interface includes the story and description of the environment. The middle text is the chat between users, while the bottom of the screen includes the vital statistics of the player, such as accumulated gold and health.

Following the development and successful adoption of the MUDs, in 1989 James Aspnes re-envisioned the user experience of virtual worlds by developing TinyMUD (figure 2).<sup>7</sup> Unlike early MUDs that featured combat and adventure quest, TinyMUDs had much more of a creative and social element. Players used TinyMUD as a place to socialize and create objects, rather than as a place for combat or adventure.<sup>8</sup> Players could create new game aspects and objects from within the world itself, thereby altering the relationship between the game and the player. Players or creators of the objects were no longer mere consumers or actors in the environments; they became active developers of the world. Over time, players spent a majority of their game life creating objects and talking about them rather than *playing* the game. Unfortunately, due to technological constraints, users could build objects only for other players to look at; they could not interact with or use any of the objects created within the virtual world.<sup>9</sup> For instance, a user could create a shovel, but the shovel would be a static object; players would not be able to dig a hole or even hold the shovel in their hands. TinyMUD represents one of the first breaks from virtual worlds as *games* to virtual worlds as *social spaces*, although they were limited to six to eight players at one time. Creativity and collaboration began to have a place in virtual worlds, along with the traditional elements of combat and competition.

The development of MOOs allowed users of virtual worlds the ability to create content and give the content to other players. Users of MOOs were able to interact with and use items created within the virtual world. If a player created a city street, other players would be able to walk along the street, look at shops, or even visit with other players. MOOs had a programming language that was easy for players to learn; because of this, MOOs became highly customized environments and eventually became a popular tool for education.<sup>10</sup> Stephan White released the first MOO in 1990, and many MOOs are still functionally running today.<sup>11</sup> Hogwarts MOO is a Harry Potter alternative-universe MOO that has been running since 1999.<sup>12</sup>

The next phase in the development of virtual worlds came with the success and popularity of MMORPGs, beginning with *Meridian 59* in 1996.<sup>13</sup> In MMORPGs, players enter an online graphical and persistent world where they interact with many other players and assume role-playing characters while attempting to accomplish a task or achieve a goal. Though not the first 3-D MMORPG, *Ultima Online* is widely regarded as a seminal development and a technical as well as financial precursor to other foundational MMORPGs such as *EverQuest* and *WoW* (figure 3).<sup>14</sup> *Ultima Online* was packaged and sold as a game in retail stores, but once the game was purchased, a \$9.99 monthly subscription fee was required



**Figure 2**  
An example of a TinyMUD made for the Apple II. The player is now represented graphically and is shown with two swords.

to play the game online. Within three months of launch, *Ultima Online* had 50,000 subscribers, and over 100,000 within a year, each paying \$9.99 a month to play.<sup>15</sup>

*Ultima Online* was not only a major technical development for virtual worlds, the *Ultima Online* business model also changed the traditional video game paradigm because of the high number of users that paid a monthly subscription fee to play. Traditional console games such as *Pac-Man* and *Super Mario Bros.* or computer games such as *Sid Meier's Civilization* were developed and marketed as a one-time purchase. Developers and retailers literally and figuratively sold a game in a box. In the old paradigm, once a game was sold, the transaction was complete, and it didn't matter how often or if the game was being played. *Ultima Online* altered the game industry and set a precedent for the future of virtual worlds because it was not only sold as a packaged game; it required players to continue paying a \$9.99 monthly subscription fee to play the game.

*EverQuest* is a MMORPG that followed the subscription model of *Ultima Online* but added a major piece to the game play that would impact the future of social virtual worlds. *EverQuest* was developed in a way that required team or collaborative play in order for players to succeed. To advance in the game, players would need to form small teams and regularly play with the same team so that the team as a unit could advance to the higher levels. If players lost a group member, they would typically recruit a new player from their real-life friends in order to keep their campaigns going.<sup>16</sup> The requirement of collaborative play created a game environment dependent on social networks. The social networks created within the game expanded beyond game play and

into online discussion forums and eventually face-to-face conventions.<sup>17</sup>

Three developments from the use of MMORPGs created a ripe environment for the rise of 3-D social virtual worlds:

1. The dependence on collaboration within MMORPGs created a strong social system.
2. Players supported and sustained the social systems outside of game play, usually with web pages and bulletin boards.
3. The emergence of residential broadband Internet connections and high-end personal computers created an entry point for nongamers to enter virtual world environments.

Active Worlds, There, and Second Life are examples of 3-D social virtual worlds that have prospered since 2003, although Active Worlds was developed several years before the others. Social virtual worlds are different from MMORPGs because a game does not exist at their core. Players, or *residents*, of these worlds tend to build, socialize, collaborate, and design as opposed to participating in quests or engaging in combat. There and Second Life have an entrepreneurial essence within the game, and many residents run virtual businesses selling clothing, vehicles, homes, or furniture.

This chapter presented the evolution of social virtual worlds as seen in key historical developments, beginning in 1979 with the development of text-based multiuser games known as MUDs. Ten years later, TinyMUDs and MOOs were played over TelNet with a low number of synchronous users who emphasized social interactions and creation over combat and adventure quests.



**Figure 3**  
*World of Warcraft*, the most popular MMORPG in North America.

As high-end personal computers and residential broadband were adopted into the mainstream during the late 1990s, subscription-based MMORPGs became a popular format for both players and designers of virtual worlds. While MMORPGs are still played more frequently than any social virtual world, social virtual worlds are rapidly expanding and are being adopted as a groupware technology. As the technology behind virtual worlds evolved from small text-based worlds to massive 3-D worlds, the user base also evolved. In this co-evolution, *players* of virtual worlds became *residents* of virtual worlds, and what were once *fantasy* worlds over time became *mirrored* worlds: worlds complete with social and financial dynamics that seeped out from cyberspace into real space. Second Life is a prime example of the co-evolution of virtual world technology and user experiences.

## Notes

1. William Sims Bainbridge, "The Scientific Research Potential of Virtual Worlds," *Science* 317 (July 27, 2007): 472-76.
2. Hof, R. (2006, May). My Virtual Life. Business Week, Retrieved December 19, 2008, from Academic Search Complete database.
3. Richard Bartle, *Designing Virtual Worlds* (Indianapolis, IN: New Riders Games, 2003), P. 3-17
4. Betsy Book, "In Moving Beyond the Game: Social Virtual Worlds" (paper presented on the panel "The Culture of Play" at the conference State of Play 2: Reloaded, New York Law School, October 28-30, 2004).
5. Bartle, *Designing Virtual Worlds*, p. 3 -17
6. Ibid, p. 4-6
7. Ibid, p. 23
8. T. L. Taylor, *Play between Worlds: Exploring Online Game Culture* (Cambridge, MA: MIT Press, 2006), p. 23
9. Bartle, *Designing Virtual Worlds*, p. 7-9
10. Ibid., P. 9-13
11. Taylor, *Play between Worlds*, p. 23
12. About HogWarts Moo Origins: [http://www.hogwartsmoo.net/?page\\_id=166](http://www.hogwartsmoo.net/?page_id=166) accessed on 3-12-08
13. Bartle, *Designing Virtual Worlds*, p. 22
14. Bartle, *Designing Virtual Worlds*, p. 25, see also Edward Castronova, *Synthetic Worlds: The Business and Culture of Online Games* (Chicago: University of Chicago Press, 2005), p. 72
15. Bartle, *Designing Virtual Worlds*, p. 32.
16. Taylor, *Play between Worlds*, p. 52-53.
17. Taylor, *Play between Worlds*, p. 54

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