

**Avatars, Identity and Meta-Place:  
The Geography of a 3-D Virtual World  
on the Internet**

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**Introduction**

Since the mid 1990s a number of semi-public graphical spaces have been commercially developed on the Internet for use as environments for real-time social interaction (known as “chatting”) of groups of people. They are variously described as multi-user worlds, networked virtual reality (Schroeder 1997), metaworlds (Rossney 1996) avatar worlds (Damer 1997), inhabited digital space (Damer 1996), shared worlds (Roehl 1997); in this paper I refer to them simply as *virtual worlds*. They are designed as social spaces that can be used on ordinary home PCs and phone lines without the need for fancy VR equipment like data goggles and gloves. The spaces are being actively used, and to varying degrees re-constructed, by the participants to develop places which provide a sense of belonging. In many respects virtual worlds can be seen as a natural enhancement to the widely used text-based Internet chat services and MUDs (multi-user dimensions) by providing a visual and tangible “physical” interface for social interaction using 2-D, 2.5 or fully 3-D environments. Bruce Damer, a virtual worlds evangelist, claims that the development of these system is significant because at last “*there was ‘space’ in Cyberspace and ‘visiting a place on the Internet’ began to have real meaning*” (Damer 1996, page 1). In text-chat people are represented simply by a name or net-handle, but in the virtual worlds this is also extended with participants being represented by graphical identities known as avatars<sup>(1)</sup>.

I hope that examining the social form and physical geography of an Internet virtual world will be apposite to many of the themes of this meeting. Virtual worlds are an emerging space that can be usefully studied to gain an insight into social interaction, the development of online identities and the construction of meta-places with a real sense of meaning. Virtual worlds have much in common with other virtual supported social spaces. However, they have a crucial distinction in that they attempt to provide a tangible ‘physical’ environment of homes, furniture, streets, trees, ground and sky that participants can use to situate their social interactions. With varying degrees of realism the virtual world software attempts to simulate characteristics of real-world places in the hope of making the online experience less virtual and more naturalistic, therefore more enjoyable and fulfilling. However, because of technical limitations or conscious design decisions the virtual world simulation is still markedly different than the material world. For one thing the realism of the graphics rendering has to be limited because of the Internet’s capacity and interaction is constrained by the keyboard and screen. Also, of particular interest are the conscious decisions of the programmers and designers to warp and even transcend the conventions of the real-world. This is most evident in terms of movement, with participants being able to fly, teleport and walk through walls. In consequence of this deliberate warping of the physical rules, I like to think of the places in virtual worlds as *meta-places*<sup>(2)</sup>. The fact that virtual worlds are trying to provide actual environments should make them of greater research interest to the academic disciplines that have a focus on space - geographers, planners and architects.

In this paper I will focus on one particular Internet virtual world called AlphaWorld<sup>(3)</sup>. It is a massive virtual realm that has been visited by over two hundred and fifty thousand people since its inception in the summer of 1995 and many of them have actually constructed a large, complex city at its centre. It has a realistic three-dimensional environment and **figure 1** shows typical views of this, with buildings, trees and other users, represented by their avatars, walking around. AlphaWorld is a first-person perspective virtual world in that you

see through the eyes of your avatar; as you move your avatar, so your view of the world changes (although it is also possible to view yourself in third person as well).

AlphaWorld is owned and managed by Circle of Fire Studios, Inc, a small firm based in Newburyport, MA., USA (<http://www.activeworlds.com/>). Their virtual worlds software is called Active Worlds and comprises around three hundred different 3-D multi-user worlds operated by themselves or licensed to individuals, universities and companies. AlphaWorld is one of the worlds in their Active Worlds 'universe', but is the largest and most developed. The different worlds are used as virtual versions of real places like Yellowstone national park or planet Mars; there are also marketing lead worlds, for example promoting major movies (such as Godzilla, X-Files); as well as worlds for different languages or religions. Russian and Scandinavian language worlds are particularly popular. I run a world called ATLAS which is an experimental 3d gallery space, while my colleague Andy Smith is developing a collaborative virtual design studio for use in urban planning and design (<http://www.plannet.co.uk/olp/design.htm>) using another world. In this paper I focus exclusively on the Active Worlds system and AlphaWorld as an exemplar of Internet virtual worlds.

There are a number of reasons why AlphaWorld is a good case study:

- it is one of the most technically sophisticated virtual worlds, with a realistic 3-D environment and avatars,
- it has many small, but active communities,
- it has many social activities, including the "classic" example of a virtual wedding (May 1996), as Damer recounts: "*Citizens floated their avatars down the aisle, crowded the altar to witness the words "I do" from both the bride and groom, and then floated in around the couple to wish them well. .... When the bride tried to toss her bouquet, she discovered that it was permanently glued to her avatar. Immediately after the wedding, the groom drove 3,100 miles from San Antonio, Texas to Tacoma Washington to kiss his bride.*" (Damer 1997, page 134).
- it is probably the most popular virtual world system (although reliable usage figures are difficult to gather),
- it enables users to design and build the 3-D environment themselves,
- it has detailed recorded history<sup>(4)</sup>,
- its urban geography has been mapped in detail (see **figures 2 & 3**),
- you can try it out for free (although the software only runs on Windows95/NT and you need to pay a citizen registration fee to gain access to all facilities),
- it has been studied by several social scientists using participant observation (Schroeder 1997, Jeffrey & Mark 1998).

### **What Are Virtual Worlds?**

Virtual worlds can be thought of as merely visual interfaces to popular text chatting activity, much as Web browsers provided a graphical interface to textual Internet information. On this definition one might dismiss them as they share "*the features that make chat rooms so paralyzingly banal ... and wed them to the empty eye-candy of the videogame.*" (Rossney 1996). However, the virtual world phenomena is greater than the sum of its parts (chatting plus the 'eye-candy'), as I hope to demonstrate in this paper. Virtual worlds are providing a new meta-places for social contract.

Virtual worlds, much like their text-based MUD forebears, can appear to the outside observer as a strange, chaotic, ephemeral and unreal places of fantasy and imagination. However, upon closer examination it can be seen that the participants in the virtual worlds are engaging in very real communication, albeit strange in form and context. They are re-forming existing and constructing new modes of interaction and identity to suit the 'reality' of the meta-places available in virtual worlds (Schroeder 1997). From the outside it may appear ephemeral and unreal, but to the participants it imbues a powerful reality and sense of belonging. From a geographical point of view the study of these systems is interesting because of the how the social environments and the 3-D built environment combine to create a virtual place. They are new, digital spaces in which users are trying to create meaningful places for personal interaction. Research is beginning to consider how the design of the built-form (of the 3-D space and the software interface) and technical operation of these electronic places shape the social activities and communities that form within them (Donath 1997, Huxor 1997, Schroeder 1997). There are also varying degrees to which user can adapt and shape the structures of the virtual worlds to better meet their needs. This is particularly so with AlphaWorld where users are able to 'own' land and build homesteads, thereby constructing their own meta-places for social interaction. The facility for AlphaWorld's users to own land and build was a conscious part of the design of the software and is unique amongst competing commercial Internet virtual worlds. This 'homesteading' capability has been enthusiastically grasped by tens of thousands of people since the AlphaWorld was opened.

What were the antecedence Internet virtual worlds systems come from? Arguably, there are two major antecedents of today's systems - text-based, synchronous conferencing systems and computer games. Importantly, I would argue that Internet virtual worlds draw much less from the experience of the mainstream virtual reality (VR) field. The key goals in the development and deployment of Internet virtual worlds have been sociability and entertainment, rather than immersive simulation or realistic visualisation.

Text-based conferencing system that are used synchronously by many people, encompassing MUDs, MOOs, Internet Relay Chat and chat-rooms, have a long and varied history and their characteristics have been well studied by social scientists (see for example Reid 1991 & 1995, Rheingold 1994, Turkle 1995, Curtis 1996, Rafaeli et al 1998). The crucial element of all these systems has been that they enable genuine social interaction between real people in real-time using ordinary home PCs. This interaction in turn lead to the formation of so called virtual communities (Rheingold 1993, Garton *et al.* 1997). The interface to these systems were, by necessity of bandwidth and computing power, limited to text communication, however this does not seem to have hindered too greatly peoples ability to reach out and interact with others through this medium.

The first virtual world system was Habitat which fused together a graphical interface with avatars and a game-style MUD environment (Morningstar & Farmer 1991). It was a genuine pioneering effort, developed with the limited computers of the mid 1980s, and is really the progenitor of today's Internet virtual worlds because it ran on the home computers of that time (the Commodore 64) and introduced the avatar representation. The creators described their system as:

*"A far cry from many laboratory research efforts based on sophisticated interface hardware and tens of thousands of dollars per user of dedicated computing power, Habitat is built on top of an ordinary commercial on-line service and uses an inexpensive - some would say "toy" - home computer to support user interaction. In spite of these somewhat plebeian underpinnings, Habitat is ambitious in its scope"* (Morningstar & Farmer 1991, page 273).

In many ways this description could apply to the Internet virtual world systems today, in that they aim to be accessible to the average Internet users, yet have the ambitious goal to provide the space and conditions for communities to grow.

The other key antecedent of virtual worlds has been computer games. The rapid development in computer games technology in terms of the quality of their graphical interfaces and the immersiveness of their gameplay in the last ten to fifteen years has been remarkable (Haddon 1993, Herz & Pietsch 1997). The computer games market is driven by fierce commercial pressures to delivery exciting new products that run on affordable home computers. Some of the most influential games are the simulation and strategy games like SimCity and Ultima (Macmillan 1996, Kim 1998), adventure games such as Myst and Riven (Carroll 1997) and, in particular, the 3-D first-person action games with DOOM and Quake (Riddell 1997) being the best exemplars. In fact the virtual spaces of these networked games would provide a fascinating study in the creation of virtual place and community. The best of these games provide very compelling virtual environments, a good example being Quake that has developed a whole subculture of "clan" communities (Breeze 1997).

### **The Space of AlphaWorld**

AlphaWorld comprises a massive virtual space which is undergoing concerted urban development. It was opened to Internet general public on the 28<sup>th</sup> of June 1995, the beginning of sustained colonisation, with tens of thousands of people leading a virtual land-rush to claim the *terra nullius* of AlphaWorld. The space started as a flat, featureless plain stretching for thousands of virtual kilometres in every direction, coloured a uniform grass shade to signify it as virgin territory waiting to be claimed. There are no "natural" features, no mountains or rivers, just a perfect green plain sheltering under a unceasing bright blue sky. For geographers, an obvious comparison can be drawn between space of AlphaWorld and the isotropic plain used in early models of settlement patterns. This world would also be the true dream of the flat earth advocates of old. Everything that now exists in AlphaWorld, over 25.2 million objects as of June 1998, has been placed by human inhabitants (Vevo 1998).

So, exactly how big is AlphaWorld? The total area of the world is exactly 429,038 square kilometres, 4.4 percent bigger than California. The borders of AlphaWorld are dead straight, forming an exact square of land 655 kilometres on each side. A Cartesian co-ordinate system is used to delineate space in AlphaWorld with an

origin point in the dead centre of the world at 0,0. This centre point is known as Ground Zero (GZ) to the locals and is the focal point for the world because when people enter this is the location at which they arrive. Consequently, the area around Ground Zero always has the most people present. When people give addresses in AlphaWorld they use co-ordinates such as 67N, 42W which translates to 670 metres north and 420 metres west of GZ. It is interesting that people know and use co-ordinates of their homesteads, rather than house numbers and street names. In the real-world the only people who are likely to know the location of their house in terms of co-ordinates are surveyors.

The inhabitants of AlphaWorld have been busy claiming land and building all kinds of structures from modest suburban-style homes to grand castles (I discuss how to build in detail later). However, they have made little impact on the vast expanse of AlphaWorld, despite their best efforts. **Figure 2a** shows a map of the whole of AlphaWorld showing the density of urban development as of February 1998. The most heavily built-up areas on the map are represented by the brightest pixels. The end result looks very much like the satellite photographs of the Earth taken at night where the major cities and conurbations are identified as bright areas caused by all the light escaping into space. From **figure 2a** it is clear the most developed area of AlphaWorld is the densely built city around GZ, sprawling out for about fifteen kilometres in all directions. Ribbons of urban growth project out from GZ in a star shape along the principle compass axes. Towns and other small developments lie along these axes, looking like bright beads strung along a necklace. The spatial structure of urban development is largely the result of the power of the co-ordinate system as a form of addressing in AlphaWorld. Human nature means that people like to choose regular and memorable co-ordinates, such as 50N, 50W or 1555E, 1555S as the location for their homestead. Once a pioneer has started building other citizens will build alongside either by invitation or just to be close to other people.

The map in **figure 2a** was produced by the Vevo project, which has created very detailed maps of AlphaWorld from the property database that stores the location and ownership of everything in the world from the smallest plants up to large tower blocks. **Figure 2b** shows an example of their detailed maps, where it is possible to discern roads and individual buildings. The complete map can be browsed from their Web site at <http://awmaps.vevo.com/>.

It is evident from **figure 2a** that a large amount of AlphaWorld's expansive green plain remains undeveloped, with no glow of human activity. Only a tiny percentage of the AlphaWorld's land area contains any building. There is clearly still plenty of room for expansion, although the much sought-after land in the centre of the world, as close as possible to GZ, is now heavily developed. With so much space, AlphaWorld is very underpopulated compared to most real-world countries. There are currently about 30,000 different people who have built something in the world, taking this as the resident population of AlphaWorld, this gives a density of just 0.07 people per square kilometre.

Roland Vilett, one of the AlphaWorld programmers, has produced two gloriously detailed colour "satellite" maps of the urbanised core of AlphaWorld (**figure 3**) showing the real complexity of human development (Vilett 1998). These maps are snapshots in time, showing the state of the world in December 1996 and February 1998 and they vividly reveal the growth of a city in Cyberspace. It can be clearly discerned that the most intensive urban development has taken place in the centre of the maps, which is around Ground Zero. The growth of urban development, spreading out from GZ, in this period of just over a year is apparent by comparing the two maps. Both maps cover the same area of AlphaWorld from 1000N, 1000W to 1000S, 1000E, a four hundred square kilometre tract of land. This represents a mere 0.3 percent of the total extent of the world, although it does contain a large proportion of the building. In the maps, particularly the first created in December 1996, the star-shaped urban development along the compass axes is clearly evident. A year later the star shape is dissolving as fill-in development in the desirable land around GZ continues apace. The dark green areas on these maps is unclaimed land.

### **Immigrating to AlphaWorld**

When you enter AlphaWorld for the first time you go through an immigration procedure, but Damer reassures us "*Don't panic, immigration into this virtual world is much easier than crossing national boundaries!*" (Damer 1997, page 107). You can choose to enter the world on a tourist visa or you can apply for citizenship, which grants you several important rights. To gain AlphaWorld citizenship requires the payment of a fee (currently \$19.95 a year). It is interesting that the people who run AlphaWorld use real-world metaphors of immigration and citizenship in relation to access to their virtual world. The introduction of differential rights between tourists and citizens, when the fee was instigated in September 1997, has given rise

to a two-tier social structure of “insiders” and “outsiders” which has impacts on the community in AlphaWorld (Schroeder 1997). Before the fee was introduced, everything was free and everyone was a citizen. AlphaWorld citizenship buys you the right to choose your avatar from a wide range of available ones, to own land and build on it and also sent telegrams to other users. As a tourist you are free to wander around and engage in conversation, but you are stuck with the default “tourist” avatar and you can not build. Tourist can be treated differently and unfavourably by citizens, although it is difficult to determine how widespread this is. Just like in the real-world the “locals” can be unfriendly to tourist and as Schroeder notes “...*tourist are immediately identifiable; they have single ‘standard issue’ avatar - with a camera hanging from their shoulders!*” (Schroeder 1997, paragraph 5.5). **Figure 4** shows examples of citizen and standard tourist avatars. There are also more subtle differentiation with age of your citizenship being indicated by how low an ID numbers you have. The lower the number, the more of a pioneer you were, arguably conferring a degree of kudos and status in the world. Social stratification is also played out in spatial terms, with ‘newbies’ tending to cluster at GZ whereas the ‘regulars’ are more wide ranging, exploring more of the territory and holding meetings and events at specific locations (Schroeder 1997). This is due to their greater familiarity with the system and what is available in the world - they know the good places to go. Also, regulars often have built homesteads that they can invite people to visit, a facility denied to visitors.

When you immigrate to AlphaWorld you are required to choose nickname that is unique in AlphaWorld. This contributes to the construction of a virtual identity which can often be quite different from your real-world persona. The selection of an avatar also adds to this, as it perfectly possible to choose a body form of a different race or gender. The nicknames of people present in AlphaWorld at any given time, clearly show that many are taken from favourite characters in literature, TV and films. The construction of virtual identities, has been noted by other researchers looking at various computer-mediated communication systems, particularly text-based MUDs (e.g. Turkle 1995, Curtis 1996, Donath 1998). The allocation of citizenship also requires you to provide a valid email address. This is for practical communication purposes, but it also, arguably, instils some degree of social responsibility on users, knowing that they are not totally anonymous (Damer 1997).

To what degree are the users of AlphaWorld really citizens in a new world with inalienable rights? The constitutional position of citizens can best be described as vague and in reality they are really just consumers, despite all the new world rhetoric. When you immigrate to AlphaWorld you are really signing up to a consumer contract with the world owners, Circle of Fire Studios, Inc. To use their software you must agree with their license which entitles you to certain activities. There is evidence that some users are unhappy with the nature of their rights under this agreement and their have been accusation made against Circle of Fire Studios of arbitrary use of their powers in regard to ejecting and banning people from AlphaWorld. These rumblings of discontent are reported in various online newsgroups for discussion of AlphaWorld<sup>(5)</sup>. It could be that some of the AlphaWorld old-timers have become frustrated by the changes they see being imposed on their world, for example the introduction of the citizen fee and increasing commercialisation, that they have no control over.

The use of powerful real-world metaphors of immigration, citizenship and homesteading mask the reality that AlphaWorld is really a privately owned themepark to which you can a ticket (citizenship) that allows you to build new rides and chat to the other customers, but the management of the park have the right and power to refuse entry, throw you out and ban you when they feel you have broken their rules. You have no means to independently challenge the management’s actions. In this sense, AlphaWorld is not a wild-west frontier, rather it is more like a Disneyesque FrontierLand. Internet virtual worlds like AlphaWorld can therefore been seen as another an example of a privately owned and operated semi-public spaces designed for consumption, just like shopping malls and themeparks in the real-world (Sorkin 1992, Graham & Aurigi 1997). The true nature of AlphaWorld as a semi-public space was eloquently spelt out by the following message posted on the AlphaWorld community newsgroup by user “retsmah” under the subject heading “its a corporation not a country”:

*“i think what most of the people are forgetting is the cof [Circle of Fire Studios, Inc.] is a corporation not a country...therefore they can run it any way they want...and they dont have to listen to the consumer unless they choose to.. for some reason people seem to think that it is a country, and a free country at that.. well hate to burst the bubble but it is not..aw [AlphaWorld] is a software program owned by a company.. if you dont like how they run the company dont use the software...i mean i hate coca cola.. but i dont try to tell them how to run the company hahahaha.” (Retsmah 1998).*

Just like themeparks and shopping malls, AlphaWorld has its own private security cards, called Peacekeepers. Their job being to maintain order and prevent disruption to other customers. To achieve this they have the power to instantly eject people and then ban them for varying lengths of time from returning to the world.

### **Building in AlphaWorld**

Undoubtedly, one of the main attractions of AlphaWorld compared to competing virtual world systems has been the ability of its users to construct things in the world. Building in AlphaWorld is much like using a Lego construction set. The world was conceived with the means to allow users to build and this has proved to be popular. As we have seen earlier, the citizens have built a huge, sprawling city in the centre of the world, along with many smaller settlements and isolated homesteads out in AlphaWorld's expansive prairie.

The first step in building is to locate a plot of empty land that is not owned by anyone else. This can be difficult if you want to building anywhere near GZ due to density of existing urban development, however, there is still plenty of land further out. Once you have found some suitable vacant land you can claim this territory for your homestead simply by building on the ground. There is no limit to how much land you can claim. However, it is important to cover every acre you own with buildings or gardens otherwise others can build in your backyard. These gives rise to building disputes, one of the major sources of conflict in AlphaWorld as we shall see later.

Building is undertaken with predefined objects, much like virtual Lego bricks, such as road sections, walls panels, doors, windows to flowers and furniture. In total there are over one thousand objects and you put them together piece by piece to create structures. Construction of large buildings, using hundreds of individual objects, requires a considerable amount of time and effort. Yet, thousands of users have become architects and builders and Damer claims that *"Within two years, ... home users had built more three dimensional virtual space than all the laboratory and university virtual reality environments combined."* (Damer 1997, page xx). The scenes in **figure 1** and the detailed map in **figure 2b** shows some of the typical AlphaWorld building.

As with a Lego set, you can only build with the pieces provided. It is not possible to create your own pieces. This means the built environment of AlphaWorld has a homogenous appearance. Despite this limitation, the citizens of AlphaWorld have managed to build all manner of interesting structures, some well-designed and aesthetically pleasing, some a chaotic, ugly mess. The best buildings and homesteads represent many, many man-hours of effort.

The homesteads that people build in AlphaWorld are analogous to the homepages that people create on the Web, rather than private homes of the real-world. Both homesteads and homepages are tangible expressions of presence in the online world, serving as fixed points of reference in an ever changing landscape. As Jeffrey and Mark comment *"Building a home provides an opportunity to showcase one's craftsmanship, and create a feeling of ownership as the home is a territorial marker for a virtual habitat."* (Jeffrey & Mark 1998). They both require an investment of time and effort to build properly and maintain. AlphaWorld citizens list the co-ordinate location of their homesteads in the same way people give the Web address of their homepages. Finally, both forms of virtual expression suffer the same problems of poor design and the "build and abandon" phenomena. It appears that AlphaWorld is providing a powerful new medium of personal self-expression which is denied most people in the real-world. How many people have the time, money and skills to build their dream home in the real-world? Well, many thousands have been able to in AlphaWorld.

From my informal observation of the structures which users have built in AlphaWorld it is clear that they are firmly rooted in peoples everyday experience of real-world places. The homestead designs match familiar architectural forms and layouts despite the complete freedom of the virtual world to stretch and warp the notions of space. For example, it is perfectly possible to build a grand castle floating in mid-air or other architectural designs that would be impossible with real-world building materials and the force of gravity. However, most people seem stick to building more conventional homesteads. This may due to the difficulties people have in moving and navigating structures in three dimensions that disobey the conventions of real-world architecture. As well as the desire to have a meta-place than has the familiarity of real places.

The local spatial structure of the city around GZ is somewhat chaotic and disorganised because it has grown over time from the efforts of lots of individuals with no central co-ordination. In AlphaWorld there are no building controls or planning zones. I would argue that AlphaWorld's towns can be viewed as similar to the informal squatter settlements that surround many rapidly urbanising cities in the third world. These settlements are unplanned and built by the residents themselves from what ever materials are to hand.

There have been several attempts to form specific communities in AlphaWorld by planning and build an actual township. The most well documented has been the Sherwood Forest community project run by the Contact Consortium (Damer 1997, Contact Consortium 1998). The project commenced in early 1996 and has a formal charter and a town plan (figure 5). In many ways the community activists of the Sherwood Forest project were aiming to recreate an utopian, Californian-style, suburban township (Kling & Lamb 1996). Another good example is Pink Village, a gay and lesbian community, which has bars, cafés, a night club, a town hall, gardens museums, galleries as well as ‘private’ homes (Pink Village 1998). The community is active with a local newspaper, a calendar of social events including a pride festival, and an elected village council.

### **Travel and Time in AlphaWorld**

The physical movement of avatars in AlphaWorld is considerable enhanced compared to how humans can move their bodies, unaided by machines, in the material world. The nature of space and time are being warped in the virtual world by the ability to move your avatar.

By default when you enter AlphaWorld your avatar walks. However, it is as easy to fly around up in the air as it is to walk on the ground. Flying requires no greater effort or special equipment, you simply press the + key and up you go. In fact, it often easier to travel by flying because you can see better where you are going, so for many users flying is the preferred means of movement. Flying across AlphaWorld’s vast cityscape, in third-person perspective, can be a very exhilarating experience, you can even change you avatar to that of a bird. In this virtual world one can experience a dream of many to be able to soar through the city as free as a bird.

To travel any distance by walking or flying quickly becomes tedious. As there are no cars, trains or planes in AlphaWorld citizens use teleportation to get around. Teleportation in AlphaWorld works just like it does in sci-fi literature. You avatar is instantaneously transported to the specified location, to the accompaniment of suitable “beaming” sound effect. Teleportation has seriously warped the concept of distance and geographical accessibility as any location in the 429,000 square kilometres expanse of AlphaWorld can be reached instantaneously from any other point, at no cost in terms of time or money. Consequently, every point in AlphaWorld is equally accessible, this is truly the death of distance (Couclelis 1996, Cairncross 1997).

The ability to teleport is a powerful feature, however it was not available at the beginning of AlphaWorld’s history. It has only been progressively introduced for fear of its affects on the world. As the AlphaWorld newspaper reported in November 1995:

*“Teleportation! Yes Teleportation! The one most common request of AlphaWorld citizens has been teleportation... With teleportation more of AlphaWorld will become readily accessible. There is still some concern that teleportation will ruin the simulation of reality in AlphaWorld.”* (NWT, Issue #4, page 2).

Distance may be dead in AlphaWorld, but the importance of location is alive and well. When people are choosing a location to visit or, more importantly, a place to build their homestead they want a *good* location. As in the real-world the factors that influence a good location can vary, in the context of AlphaWorld a good location is determined by two main factors, firstly being as close as possible to Ground Zero, the centre of the world. Secondly having a location with memorable co-ordinates, for example the Pink Village is location at 2222s and 2222e.

As well as warping space and distance, AlphaWorld also exists in its own special time zone called AlphaWorld Standard Time. The need for a special time zone arose because of the difficulty of scheduling meetings and events with people from all around the world; confusion often occurred as people tried to agree a mutually convenient time and then convert it into their local time. Consequently, a group of AlphaWorld activists designated that Greenwich Mean Time minus two hours would be standard for AlphaWorld in November 1996. This time-zone is called mid-Atlantic is not used by any countries in the real-world. Subsequently, this has adopted by other virtual communities who communicate in real-time as a good idea, with the time zone being renamed Virtual Reality Time (VRT for short). In the latest version of the Active Worlds software, VRT is displayed on the status bar, so citizens need never be confused about the time in AlphaWorld. The existence of meta-places in their own time-zone helps to differentiate them from the real-world.

### **Avatars and Identity**

The role of the avatar, in providing a tangible representative form of the user, is a crucial element that distinguishes virtual worlds from other social spaces in CMC such as Usenet and IRC (Rossney 1996). The avatar as a bodily presence in virtual space provides a focus for conversation and social interaction. Avatars can talk to each other which has the effect of enabling a kind of face-to-face communication between users.

The selection of the avatar is also important in the formation of the virtual persona, just like the physical body is at the core of our real-world identities (Donath 1998). The development of online virtual identities that differ from real-world identities has been a topic of considerable social science research. In addition, the role of the body in cyberspace, the potential for intellectual disembodiment and transcendence of flesh and bone has also interested researchers (Stone 1991, Featherstone & Burrows 1995).

In AlphaWorld, the registered citizen can choose from a list of thirty-odd available avatars. In **figure 4** you can see several different avatars forms. Unlike some other virtual world systems you are not able to create your own unique avatar. As mentioned earlier, visitors are limited to choice of two tourist avatars (one male, one female) which make them easy to identify. All the avatars are based on conventional human body shapes unlike many other virtual worlds which have avatars more obviously aimed at the entertainment market using cartoon-style characters or inanimate shapes. All AlphaWorld's avatars have a similar "look", in some respects resembling a virtual Barbie and Ken.

Selection of the avatar is from a menu listing with each one having a unique name. Citizens can change their avatars at any time simply by clicking on the name of their choice, they instantly assume that avatar shape in the world. Its goes without saying that the avatar someone has chosen may not have any relation to their real-world bodily appearance. The ease and freedom of avatar selection, arguably, encourages well known identity deceptions that occur in online social interaction such as gender-swapping, race shifting and exaggeration of physical characteristics (Donath 1998). One needs to be aware that avatars are powerful means of *mis*representation as well representation in virtual worlds.

The AlphaWorld avatars attempt to model some of the movement of human form using gesticulation of arms, legs and head, along with some limited facial expressions. Avatars move in a simulated walking motion and a number of pre-programmed actions are possible such as "dance", "wave", "anger" (a wave of the fist). Rossney argues that avatar gesturing will bring some of the depth and nuances of non-verbal communication, that is so vital in the real-world, to the textual conversations in virtual worlds (Rossney 1996). Although this does not seem to be the case in AlphaWorld as the gestures are not widely used (Jeffrey & Mark 1998). The only time gestures are really used is to simulate avatar dancing at parties (Damer 1997).

It is apparent that users in virtual worlds both consciously and subconsciously use their avatar as they would a physical body. The best example being the convention of facing your avatar to "look" at the avatar you are talking to; the need to make eye-contact is obviously important in virtual conversation although it is not technically required by the software. This is largely because the world is presented in first-person perspective through the eyes of the avatar. When people talk in groups they tend to arrange their avatars in a loose circle, all facing each other. The avatar seems to exhibit the same sense of personal space that bodies do in the real-world. From their observations, Jeffrey and Mark state "*Although physically possible to pass through avatars, it was seen as rude and impolite and this behaviour was not observed very frequently.*" (Jeffrey & Mark 1998). So people tend to walk their avatars around others, rather than go straight through. Indeed, the sanctity of personal space around your avatar means unwarranted and deliberate attempts to invade it can feel threatening and are known as avabuse (Damer 1997). Avatars allow for a number of annoying and hostile activities in virtual worlds (Suler 1997) adding an extra dimension to impact verbal abuse that has been noted in text-chat spaces (Dibbell 1996).

The avatar also provides the sense of "human" scale in AlphaWorld with objects like windows, doors, stairs and furniture being appropriately sized. Buildings and other structures are scaled to the avatar height, just like the much of man-made environment of the real-world is built for the scale of human body. However, other features differ as you can dispense with hassle of real-world convention of doors as it is possible to walk through walls by simply holding down the shift key. AlphaWorld encourages the construction of a built-environment with solid walls using the metaphors of the material world, however it also provides superman like powers to shatter the illusion and allow avatars to effortlessly glide through structures, and many people do use this feature. Avatars in AlphaWorld do truly provide god-like powers to mortal users.



Another interesting feature of avatar interaction in AlphaWorld is the power to mute people. Just like a television remote control it is possible to mute the conversation of other users by clicking on their avatar and selecting the appropriate option. You will no longer “hear” their words. In this virtual world one can really ignore people you do not like with a simple click of the mouse. This type of personal censorship power is taken further with the ability of Peacekeeper to physically eject and then exclude people from the world as we discussed earlier.

### **Social Problems and Policing**

The potential for many kinds of anti-social behaviour exists in CMC from annoying pranks to deeply offensive verbal abuse and threats. The extended environment of virtual worlds, particularly the avatar representation, gives people new opportunities and avenues for abusive behaviour that go beyond the verbal to physical blocking, shadowing and stalking (Suler 1997). The unique facility of AlphaWorld to allow uncontrolled and unplanned building by users provides a fascinating new avenue for aberrant behaviour known as virtual graffiti and vandalism. Even though the software prevents anyone but the owner of the land from changing a building, vandalism is possible by deliberately placing objects as close as possible to other people’s homesteads. A small number of users appear to take pleasure from this, using annoying objects, like flames or bogus teleports, and even large billboards with offensive pornographic pictures placed right in front of the entrance to people’s homesteads. **Figure 6** shows a typical example, where a large animated flame has been maliciously placed inside the fenced property of someone else. The owner of the land can not move the flame, so has responded in the only way possible by placing a large placard requesting the perpetrator to remove the offending object. Interestingly the flame object appears to be used as a physical equivalent of a flame email.

This type of vandalism is viewed as the major “crime” in AlphaWorld because of the importance citizens attach to their homesteads and directly lead to early community action with the formation of the AlphaWorld Police Department to counter this anti-social behaviour (Damer 1997). However, there is little people can do as it is very difficult to get vandalism removed. It is not clear how widespread it is or whether they are random acts or a more concerted campaign against certain properties.

To try and counter the social problems of verbal abuse, avatar assaults and virtual vandalism a more organised system of policing by volunteer ‘security guards’ that are directed by the world owners, Circle of Fire Studios. Their particular concern, running the world as a commercial venture, is the poor behaviour will have left a bad impression on first time visitors who will be put off from registering as citizens. One class of control is provided by so called Gatekeepers who have the power of ejection, although their primary role is to welcome new users and provide assistance. However, from their guidelines Web page they *also “have the right and power to maintain the levels of decency that you and I would expect in the real world”* (Gatekeepers home page at <http://www.colony.co.uk/pages/gatekeep.htm>), whatever the level may be. The ‘proper’ AlphaWorld police are called Peacekeepers and their role is more wide ranging being able to patrol the world and try to intervene to prevent verbal abuse, investigate stalking and incidents of vandalism and they have the powers of ejection and banning (see <http://www.activeworlds.com/Peace.htm>). They are organised with a duty roster to provide continuous police cover. Some users have expressed serious concerns over how the Peacekeeper role is executed with accusation of heavy-handed policing without adequate appeals.

### **Conclusions**

Virtual worlds provide an interesting new CMC environment to study. Importantly, they can be distinguished from other virtual spaces because they provide a tangible representation of the person using an avatar. Also, crucially, they provide an actual ‘physical’ space that the avatars’ inhabit and use as a meta-place for social interaction. The meta-places being formed in the virtual worlds have concrete geographical dimensions, spatial characteristics and architectural forms. They provide a fascinating case study of virtual communities and fragmented identities that will be of interest to the Varenus initiative. If, as some predict, these kinds of virtual worlds become widely used as an interface and environment for online interaction, it will be important to study how the space is being developed and adapted by the inhabitants to create rich and complex meta-places that go some way towards the ‘reality’ of real places. Already there are many active experiments utilising virtual worlds for more than just entertainment chatting such as virtual teaching and collaborative work (Huxor 1997). The unique characteristic of AlphaWorld that allows users to build and shape the space of the world has particular potential in exploring the planning and design of both real and virtual cities (Batty *et al.* 1998).

In conclusion, I would like to encourage you to take a little time to download the Active Worlds browser for yourself and take a wander around AlphaWorld (and some of the other worlds), talk to some of the residents

and visitors, experiment with flying and teleporting, and maybe have a go at building. I hope you will find the experience of this emerging meta-place, at the edges of the age of technologically regulated movement, as fascinating as I have.

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### Notes

(1) The word avatar comes from the Sanskrit language and can be translated as “*God’s appearance on Earth*”. It was first used in the context of virtual worlds in the pioneering Habitat system of the mid 1980s (Morningstar & Farmer 1991) and popularised by Neal Stephenson’s science-fiction novel Snow Crash in 1992.

(2) This name draws inspiration from the *metaverse*, the virtual world envisaged in Neal Stephenson’s novel Snow Crash.

(3) For detailed coverage of other commercial Internet virtual worlds systems you may like to consult Damer’s book *Avatars! Exploring and Building virtual worlds on the Internet*, written in a populist travel-guide style, see also his Web site at <http://www.digitalspace.com/avatars/index.html>. To give you an idea of the type imagery and metaphors being employed I will list some of the names of the other systems - Community Place, V-Chat, InterSpace, Worlds Chat, WorldsAway, The Palace, Deuxième Monde and CyberGate.

(4) For example there is the AlphaWorld Historical Society, with a museum. <<http://www.geocities.com/Area51/Zone/2802/AWHS.html>>. There is also a ‘national’ newspaper called the New World Times (or NWT for short), run by AlphaWorld citizens. The first edition of the NWT was published only a couple of months after AlphaWorld opened, with regular editions since then. An archive of all editions is available on the Web providing valuable historical documents (NWT 1998).

(5) The main newsgroup is AWCommunity, available at <news://news.activeworlds.com/awcommunity/>. This is in fact run by Circle of Fire Studios and there have been accusations that it has been censored to remove negative postings.

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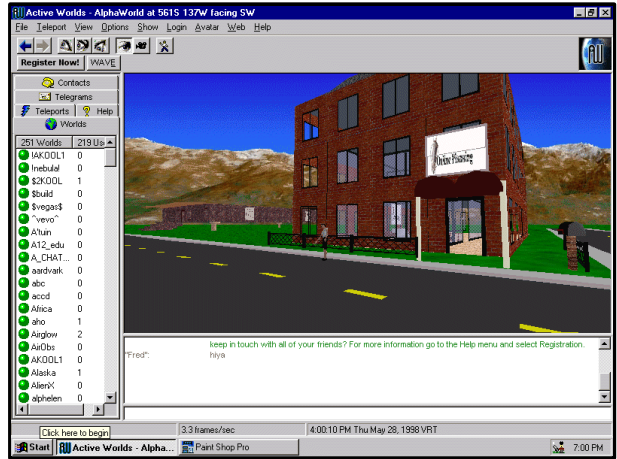
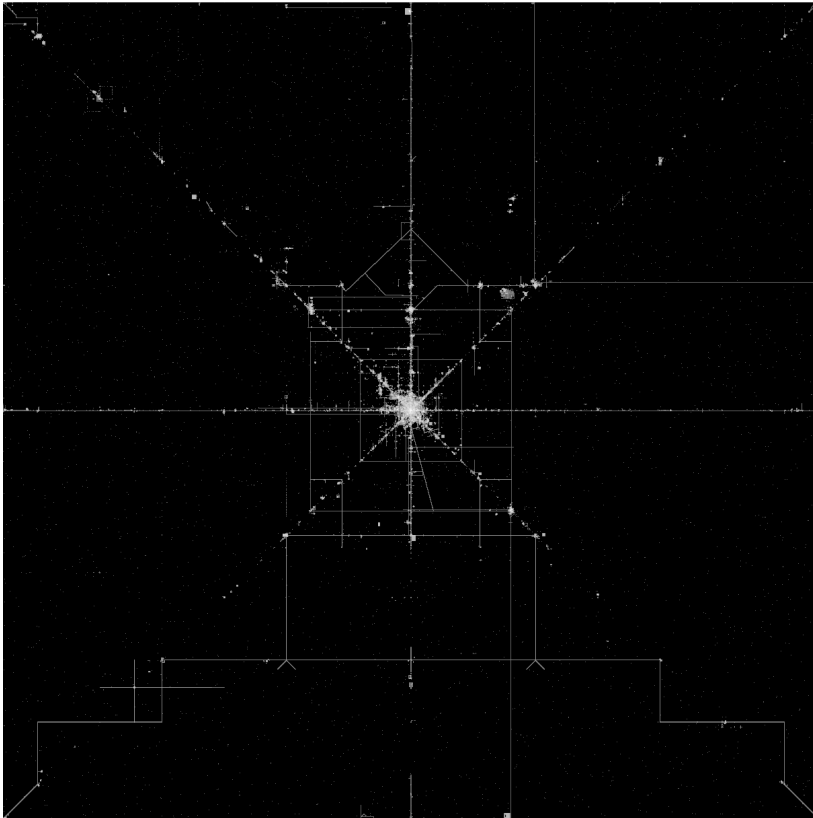
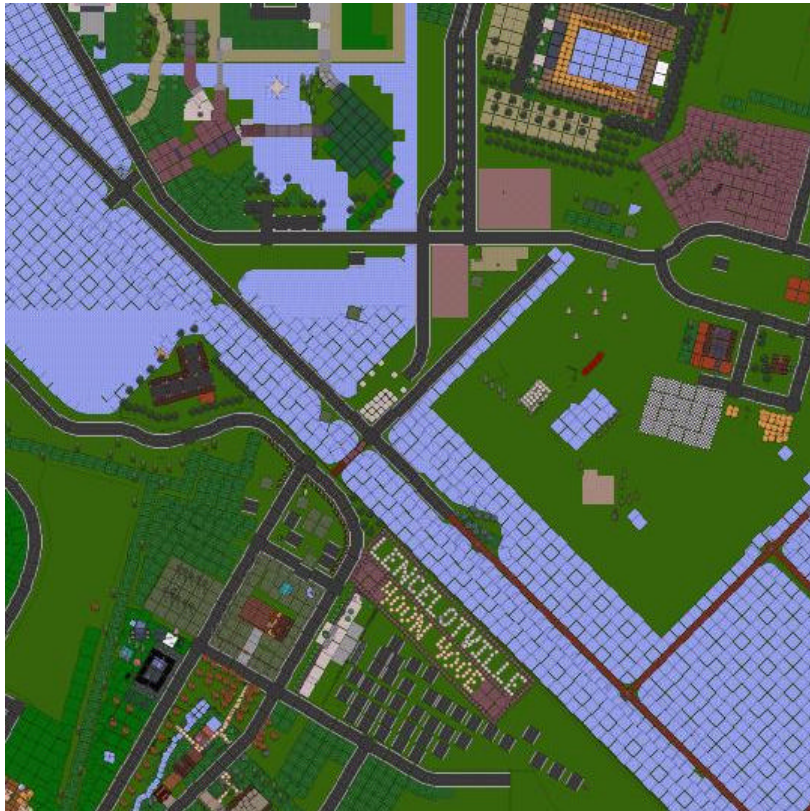


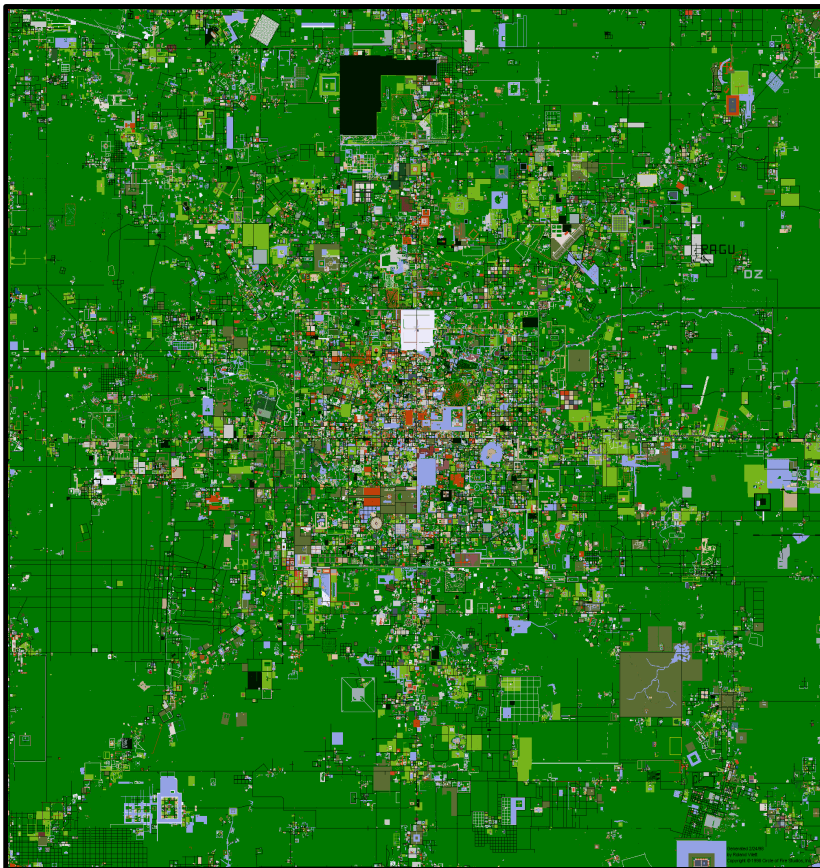
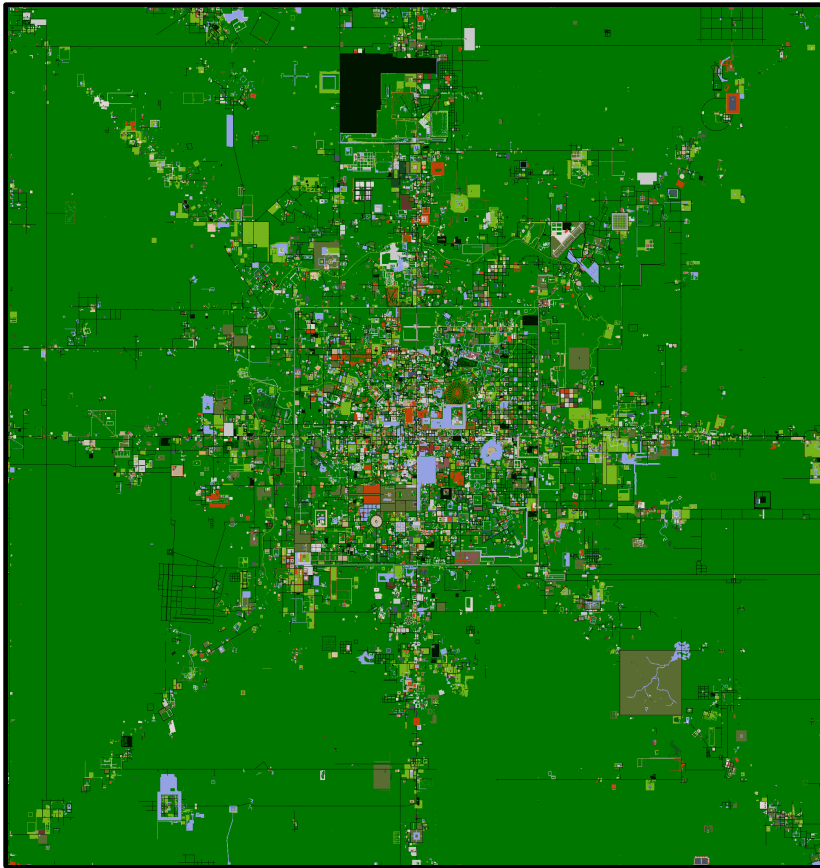
Figure 1 : Various views of AlphaWorld



**Figure 2a** : Density of building in Alphaworld on 23rd February 1998, produced by Vevo.  
(Source : <http://awmap.vevo.com/densmap.html>)



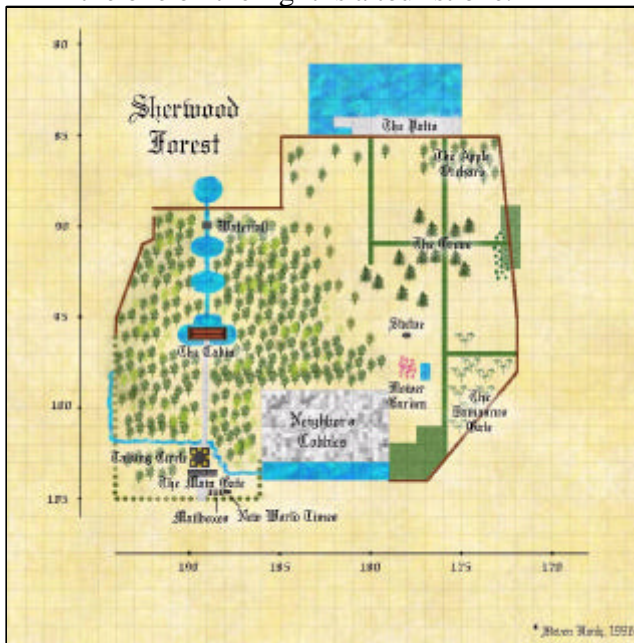
**Figure 2b** : Detailed “aerial-photo” style map of AlphaWorld  
(Source : <http://awmap.vevo.com/>)



**Figure 3** : AlphaWorld “land-use” maps created by Roland Vilett from December 1996 (top) and February 1998 (bottom).  
(Source : <http://www.activeworlds.com/events/satellite.html>)



**Figure 4** : Typical AlphaWorld avatars, the one on the right is a tourist one.



**Figure 5** : Sherwood Forest community project town plan.  
(Source : <http://www.ccon.org/events/sherwood.html>)



**Figure 6** : An example of vandalism.