

How Community and Deviance on LambdaMOO and Lord Graham's Demesne can prepare us for the future of Computer Mediated Communication in Cyberspace

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Computers are becoming increasingly pervasive in our daily lives. We have already seen that they changed manufacturing and clerical work. They will continue to change the way people work with the advent of hardware and software to support work and education at a distance. This technology includes large meeting support hardware, desktop videoconferencing and groupware. Groupware is the term used to refer to software which supports computer mediated communication (CMC) and computer supported cooperative work (CSCW). While these innovations appear to be part of a fantastic future, they already exist in our society. Multi-user environments, also known as text based virtual realities, and bulletin board systems are currently being used by groups of people as their sole means of communication. In this technology, issues of concern to traditional sociologists, such as community and deviance, are already being played out in them. Computer scientists who study CMC and CSCW should take advantage of this feature of multi-user environments and bulletin board systems and use them as micro-laboratories of human computer interaction. Multi-user environments and bulletin board systems are good places to begin such a study because they are play environments where there is less pressure and more freedom than in a work environment. The social interactions that underlie CMC and CSCW should be understood before we are required

to use such tools in more life-crucial situations and this research should begin in recreational multi-user environments and bulletin board systems.

The “Multi-User Dungeon” or MUD is a text-based game or environment. The first one was developed in 1979 as an extension of the Dungeons and Dragons (D&D) role-playing game.¹ These MUDs are located at various sites on the Internet. Many computer games were developed around this time based on the D&D theme because many players were also programmers (and vice versa)². These games are databases located on the Internet to which users can connect.

Figure 1: Typical MOO interaction

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>look
Corridor
The corridor from the west continues to the east here, but the way is
blocked by a purple-velvet rope stretched across the hall. There are
doorways leading to the north and south.
You see a sign hanging from the middle of the rope here.
> read sign
This point marks the end of the currently-occupied portion of the house.
Guests proceed beyond this point at their own risk.
--The residents
>go east
You step disdainfully over the velvet rope and enter the dusty darkness
of the unused portion of the house.
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Different instances of MUDs can vary greatly but the basic idea remains the same. In these games, every player is represented by a character which represents them in the virtual world. These characters can interact with each other as well as the objects that

¹, Amy Bruckman, and Mitchel Resnick, 1993. “Virtual Professional Community: Results from the MediaMOO Project.” presented at The Third International Conference on Cyberspace in Austin, Texas, on May 15, 1993.p.2.

² This phenomenon was observed by Amy Bruckman, 1992. “Identity Workshop: Emergent Social and Psychological Phenomena in Text-Based Virtual Reality.” unpublished paper. p.15. She found it intriguing and worthy of further study. She also noted in both groups an affinity towards reading science fiction and fantasy, particularly J.R.R. Tolkien.

form the environment. In this manner players can go on adventures and slay nasty creatures in order to collect treasure and experience points so that they can advance in the game. Hundreds of hours of playing are required for a user to attain the ultimate win condition-- that of wizard status. Wizards have the ability to add on to the game by creating new adventures for others to play. There are many types of MUD software such as AberMUDs, DikuMUDs, UnterMUDs and LPmuds.

In 1989, James Apnes of Carnegie Mellon University created TinyMUD, the first of a new generation of MUDs. The monsters and quests were gone but so was the hierarchical structure inherent in the character system. Without the game aspects TinyMUD became a social environment existing for the sole purpose of user interaction. In the five years since, there has been a proliferation of MUD types and software to support them. There are now TeenyMUDs, MUSHs, MUGs, MUSEs and MOOs. Consequently, it is more accurate to refer to this class of computer mediated communication as MU*, with the emphasis on multi-user rather than the particular software tool upon which they are built. A MU* may be based on a theme, such as *Star Trek: The Next Generation* or the *Dragonriders of Pern* series of books by Anne McCaffrey, or place such as the MIT Media Lab or a rambling mansion.³

MOO (MUD Object Oriented) software is favoured by computer scientists for a number of reasons. It was created by Pavel Curtis of Xerox PARC, a researcher in human computer interaction. All players from the outset have the ability to create new objects, that is, to add to the virtual world. There are differing character levels but these are

³ Bruckman, 1992. p7,12

present for the purpose of basic security rather than to enforce a caste system. The programming language used within the MOO is list based and object oriented, both of which are considered to be desirable attributes by “serious” programmers. The language and the software that runs the MOO were designed by a computer scientist rather than cobbled together by some talented hackers. As a result, the two major research MU* are based on this software: LambdaMOO⁴ at Xerox PARC and MediaMOO⁵ at MIT MediaLabs. This paper will focus on these in particular because they are well documented in the literature.

In January, 1991, Curtis began running LambdaMOO in his personal Sun workstation at Xerox PARC, a MOO which was based on the metaphor of a large rambling house with enough rooms all the guests who would ever want to visit.⁶ As of March, 1992, over 3 500 different players from around the world had connected and 750 players had connected within the previous week.⁷ The average MOO user tends to be an university undergraduate, not necessarily studying computers, in their early twenties. Here are examples of what a typical player would see in LambdaMOO.

Figure 2: Entering LambdaMOO

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The Coat Closet
The closet is a dark, cramped space. It appears to be very crowded in
here; you keep bumping into what feels like coats, boots, and other
people (apparently sleeping). On useful thing that you've discovered in
your bumping about is a metal doorknob set at waist level into what
might be a door. There's a new edition of the newspaper. Type 'news'
to see it.
> out
The Living Room
It is very bright, open, and airy here, with large plate-glass windows
looking southward over the pool to the gardens beyond. On the north
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⁴ LambdaMOO is at lambda.parc.xerox.com 8888, or 3.2.116.36 8888.

⁵ MediaMOO is at purple_crayon.media.mit.edu 8888

⁶ The name LambdaMOO evolved from the names of test versions of the software Curtis was writing, the first one being AlphaMOO. It is amusing that the metaphor underlying LambdaMOO is almost biblical in nature.

⁷ Pavel Curtis, 1992 “Mudding: Social Phenomena in Text-Based Virtual Realities.” p.4.

wall, there is a rough stonework fireplace, complete with roaring fire. The east and west walls are almost completely covered with large, well-stocked bookcases. An exit in the northwest corner leads to the kitchen and, in a more northerly direction, to the entrance hall. The door into the coat closet is at the north end of the east wall, and at the south end is a sliding glass door leading out onto a wooden deck. There are two sets of couches, one clustered around the fireplace and one with a view out the windows.

In contrast a bulletin board system (BBS) is a more modest affair. A is usually run on a home computer that has been abandoned in favour of an upgrade using a single telephone line⁸. A BBS can be thought of as a small scale wide area network with electronic-mail capabilities, discussion subs (which are analogous to USENET newsgroups), file transfer areas and games (which are called doors). BBSs are often a new users introduction to computer mediated communication. It requires little technology beyond a personal computer and a modem to participate. Membership on most single line systems are free but will gladly accept donations to fund their operations or to purchase new doors. Many BBSs can join together to form a network to exchange mail and posts on “netted” discussion subs. Communications packets are relayed from BBS to BBS, usually within local calling distance. One such network spans from Waterloo, Ontario to Montreal, Quebec and allows users from all points to communicate with each other freely. The administrators of a BBS are called sysops or co-sysops. They have access to the machine operating system and edit the board and game configurations both at the local console and when calling on a modem from remote.

There are limits placed on users in terms of how many posts or mail messages they can create but usually they are so high that the only real limit on them is the amount of on-line time that they are allotted each day. On-line time is a valuable and limited

⁸ Multiple telephone line bulletin board systems exist but they are relatively rare. These BBSs usually charge their users for the time and resources that they use. So most BBS users stick to single line systems because they are free and easier to find.

resource because on a single phone line system only one person can use the board at a time. As a result, off-line mail readers have been developed which allow a user to collect the data from the BBS and download it to the local machine. The user then can reply to the mail and posts at their leisure and the same program lets them upload their responses to the board and place it in the appropriate spools. Off-line games work in a similar manner. Players plan their strategy before submitting their moves for the current game turn.

One popular BBS package is WWIV (read as World War IV) written by Wayne Bell⁹. Lord Graham's Demesne¹⁰ is a local BBS that became active in February 1994 running this software.. On this BBS discussion subs and gaming have been emphasized over file transfer areas. Although there are three sysops, Lord Graham, Mausburger and The Mad Hatter and two co-sysops who are responsible for managing specific games, the board isn't particularly well managed.¹¹ Lord Graham gives the appearance of an absentee landowner who has less capable assistants running the board for him. Mausburger acts as Lord Graham's link to the board and bumbles around fixing things whenever he goes away on his frequent business trips.¹² The board has fifteen discussion subs, *The Courtyard* is the main discussion area and the ones with the highest traffic rate

⁹ WWIV is may not be the most popular BBS software but like MOO it is used by a researcher, this one in particular, which makes the data more accessible.

¹⁰ Lord Graham's Demesne is at 416-351-9667. 'Demesne' is an old version of the word domain and is pronounced as such. This word was used by a popular science fiction and fantasy writer Piers Anthony in the Apprentice Adept series. Here again we see evidence of the computer programmer personality. Lord Graham is the log-on name of the system administrator. While many believe that the name comes from the main character of the King's Quest series of games, this is not the case (he hasn't even played the games). Lord Graham was a character from the Nova Scotia Lords of Trade.

¹¹ But the users keep coming back anyways. There must be something there called "community" that makes the place so interesting.

¹² This image isn't completely a story. It is partly based on fact, partly on fiction.

are *Welcome to LEGOLand!*, *One-Line Games Discussion*, *The Peasants are Revolting!*, *The Dinner Party* and *Madman's Whine Cellar*.¹³ There are seven on-line games and one off-line game. The most popular games on the board is *Usurper*, followed closely by *Trade Wars* and *VGA Planets* (the one off-liner). Interestingly, *Usurper* is a text based single player from the *Dungeons and Dragons* genre of games, very much like the first MUDs. These characteristics of Lord Graham's *Demesne* make it particularly well suited to be a case study against which the MOOs will be contrasted.

Two orthogonal features were used to create a taxonomy of computer supported cooperative work. The two features are the number of sites (single or multiple) and the mode of communication (synchronous and asynchronous). The chart created by the taxonomy provides a basis of discussion. A similar taxonomy of CMC can be created to categorise and compare user activities.

Figure 3: Taxonomy of Interactivity in Computer Mediated Communication

Communication Mode	Number of Simultaneous Users		
	One to One	One to Many	Many to Many
Synchronous MU* specific	Chat Whispering Paging	Broadcasting Shouting	Relay Chat Net Trek Meeting rooms
Asynchronous	Mail	Discussion groups Mailing Lists	Electronic 'zines Off line games

The two main differences between a MOO and a BBS is the level interactivity that the technology supports and the amount of control that users have. On a MOO there can

¹³ Madman is one of the more prominent users on the board. She had a lot of complaints about life in general so a sub was created for her.

many users logged on at any given time and plethora of objects with which they can interact. On a single line system, there is only one user logged on and the game opponents are computer or other players in an asynchronous fashion. On a MOO users can create new objects to add to the virtual world. BBSs in contrast, users can only create mail messages and posts to subs. If they want to add or change any aspect of the board, it must be done through the administrators. This model of making modifications to a computer environment is common in LANs and WANs.

From the table we can see that even with limited technology a BBS can support the various types of asynchronous communication. A MOO can support everything a BBS can and more, but then again, they are often called a text based virtual reality. Despite these two obvious differences, MOOs and BBSs have many features in common. They both have discussion groups, e-mail and recreational activities for users. These features are apparently sufficient to support the social interaction necessary to form a community.

Community is the feeling of togetherness that comes about when a number of people gather together regularly and develop ties to each other. Their reasons for interacting with each other may be similar but individually motivated, which ensures their return even when conflicts arise. It is much like friendship but unlike a relationship between two people, community can often have a life of its own. The group can exert pressure on two individuals to maintain their friendship for the sake of the many. While efforts can be made to foster community among a group of people, such efforts were not

made either on the MOOs or on Lord Graham's Demesne. Yet in these unlikely environments, such a feeling exists.

On these virtual communities there are a core group of users who frequent the BBS or MOO and give the place character. You can count on them being there when you connect or having something to say when post a message to a sub. One indicator of the success of community in a virtual environment is when it carries over into real life. Occasionally the users decide to abandon their on-line personas and meet each other face to face in a more traditional social setting. Another indicator of community is whether people band together in support of a cause. The cause may be positive or negative; it may be organizing a user meet or to deal with some perceived injustice.

Community is clearly present in MOOs as discussed in the various published on them. This is the focus of Bruckman's paper, "Identity Workshop: Emergent Social and Psychological Phenomena in Text-Based Virtual Reality." She records that there are users who are connected to the MU* for over 40 hours per week. These characters are known as the regulars of the environment and are at the heart of the community spirit. Bruckman writes, "DePlane tells me he plays MUDs twelve hours a day. He is not exaggerating-- every time I log on, he is there. He is always there and actively participating."¹⁴ Bruckman also documents cases where people meet on a MU* and carrying that friendship over to real life. Sometimes intimate relationships are successfully formed and marriages are held on the MU* to celebrate the joining. User

¹⁴ Bruckman, 1992, p.23.

meets often last an entire weekend because there is often a large geographical distance separating them. MediaMOO was created in the hopes that media researchers would use it as a meeting place to discuss their work and make new connections with colleagues.

The users of Lord Graham's Demesne have organized two user meets in its short life. A pub night was held on September 17, 1994 and was preceded by a dinner at a restaurant to accommodate the younger users. One user who attended remarked that nobody ever looks like what you picture them. The other user meet will be a trip to see *The Rocky Horror Picture show* at a local repertory theater on December 3, 1994. There is a definite group of users who are always calling who give the place character. Their posts dominate the discussion groups and they often form teams on some of the games to fan the flames of friendly rivalry amongst themselves. Since its inception, four discussion subs have been added at the request of the users. The most vocal demands were for one where they felt it would be appropriate to discuss topics of a more personal nature such as intimate relationships. One such sub was created and named *The Dinner Party*. While it started out as all talk, there is now some serious flirtation occurring between the users from which a real life romance has developed.

Figure 4: Three Posts from *The Dinner Party* Sub

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3/50: Flirting contest
Name: Madman #73 @14
Date: Sun Nov 06 19:24:16 1994

Response To: MISTER R #67 @14

        So is this flirting contest on, or what?  Have the opponents
chickened out?

        Lance and Madman--winners by default?
        Next week on Geraldo!

Lance, babe!  Is it time to celebrate?

Madman

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... *   <- Tribble      _   <- Tribble vs. Godzilla
14/50: Flirtation
Name: Madman #73 @14
Date: Tue Nov 08 21:02:51 1994

Lance, babe!
    Looks like the flirtation is ongoing!  But never fear, how can we
lose when I have you on my side?  =)  And may I say, you're a wonderful
cook, too.
Peace 'n' love, moon-daddy-o!  Dig it!

Madman
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Madman/Lance:
[] Flirt champs '94
[] Perfect in every way
[x] all of the above!

20/50: Poetry...
Name: Lance Crossfire #102 @14
Date: Wed Nov 09 02:08:59 1994

Response To: MADMAN #73 @14

Run through by an enemy sword, Madman #73 @14 told All all about Roses

M#@> Did I claim it was original?  No...
M#@> Originals I send directly, as self-extracting graphics files.
M#@> Just ask Lance.  =)

    S'true.

M#@> Unfortunately, some of us are not gifted at writing poetry.<shrug>
M#@> Tell you what, you learn how to crochet, I'll try writing poetry.

    There once was a user named Mad,
    Who never seemed awfully glad.
    Then one day Mad met Lance,
    Liked him lots at a glance,
    And he cooked her some food that was rad.

    Huh? Huh? What do you think? Huh?
    My two cents worth...

Lance.

... Freud Fantasy Gardens--Id required.

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Community is created when people feel a togetherness. Deviance is what can happen when some one feels outside of this community either on a conscious or

subconscious level. Curtis writes, “For behavior to be deemed “deviant” it must by definition deviate from some accepted norm. Who defines the norms in any given society and how are they communicated to newcomers?”¹⁵ There are three types of norms in a community. The first type includes the norms that have been generated inside the community, second, those that are externally generated, which the members have brought with them, and third are those norms that have been imposed on the community.

Having established that there exists a community on MOOs and Lord Graham’s Demesne, it can be argued that deviance is behaviour that is contrary to the spirit of these groups. They are democratic in the sense that they are defined by the people, but only by those who choose to participate. This is also true of situations in real life when communities attempt to generate rules to govern themselves.

Users in both environments have brought with norms that are carried from other activities. For example, there is the convention of not referring to users by their real names in these environments. Even if you know the person in real life through other activities it is strictly taboo to refer to them by anything other than their character or logon name, even in personal mail. This convention was never articulated on any of the environments being discussed but the same rule applies in other instances MU*s and BBSs.

From within the particular environment there are also norms that are imposed on the user by the administration and there are norms that the community imposes.

LambdaMOO has a document on good manners when interacting with other players.

¹⁵ Amy Bruckman, Pavel Curtis, Cliff Figallo, and Brenda Laurel, 1994. “Approaches to Managing Deviant Behavior in Virtual Communities.” Panel at CHI’94 in Boston, Massachusetts, April, 1994.

This guide was written in response to requests from players who wanted to know the ground rules in a completely new environment.

Figure 5: The main points of LambdaMOO manners

- **Be polite. Avoid being rude.** The MOO is worth participating in because it is a pleasant place for people to be. When people are rude or nasty to one another, it stops being so pleasant.
- **'Revenge is ours,' sayeth the wizards.** If someone is nasty to you please either ignore it or tell a wizard about it. Please *don't* try to take revenge on the person; this just escalates the level of rudeness and makes the MOO a less pleasant place for everyone involved.
- **Respect other players' sensibilities.** The participants on the MOO come from a wide range of cultures and backgrounds. Your ideas about what constitutes offensive speech or descriptions are likely to differ from those of other players. Please keep the text that players can casually run across as free of potentially-offensive material as you can.
- **Don't spoof.** Spoofing is loosely defined as 'causing misleading output to be print to other players'. For example, it would be spoofing for anyone but Munchkin to print out a message like 'Munchkin sticks his tongue at Potrzebie.' This makes it look like Munchkin is unhappy with Potrzebie even though that may not be the case at all.
- **Don't shout.** It is easy to write a MOO command that prints a message to every connected player. Please don't.
- **Only teleport your own things.** By default, most objects (including other players) allow themselves to be moved freely from place to place. This fact makes it easier to build certain useful objects. Unfortunately, it also makes it easy to annoy people by moving them or their objects around without their permission. Please don't.
- **Don't teleport silently or obscurely.** It is easy to write MOO commands that move you instantly from place to place. Please remember in such programs to print a clear, understandable message to all players in both the place you're leaving and the place you're going to.
- **Don't hog the server.** The server is carefully shared among all of the connected players so that everyone gets a chance to execute their commands. This sharing is, by necessity, somewhat approximate. Please don't abuse it with tasks that run for a long time without pausing.
- **Don't waste object numbers.** Some people, in a quest to own objects with 'interesting' numbers (e.g., #1700, #18181, etc.) have written MOO programs that loop forever creating and recycling objects until the 'good' numbers come up. Please don't do this.

On Lord Graham's Demesne a set of rules is presented to every user the first time they connect to the board. These rules were present before any users had connected to the board and represent primarily the views and expectations of Lord Graham.

Figure 6: Rules and Regulations for Users

Greetings, and welcome to

Lord Graham's Demesne

Since you are a new user, there's a few things you should know before you log on the first time. Please take the time to read this message thoroughly before you continue. If you don't like the rules herein, don't become a user; otherwise, I will expect you to stick to them like glue!

First off, The Demesne is a gaming and discussion board. Although a file area is available, it will mainly be for collection and dissemination of online games. On the other hand, The Demesne is just the place to prove your mastery of your favourite onliner.

The message areas revolve around gaming and general fun; PLEASE feel free to put in your 2 cents (+.14 cents GST) worth about any topic. If you have any suggestions for new onliners or topics, you can e-mail me (Lord Graham, #1).

The Heavy Stuff:

- + Legalistic Jargon: The messages, including private e-mail between users, as well as any files uploaded to the board are the property of the Sysop, and the Sysop reserves the right to examine any such material. That said, I really don't have the time to pry into your mail, anyway.
- + Don't Pirate! I'll walk all over you if you upload, download, or discuss pirated software of any sort anywhere on my board. I run a clean ship, and I won't tolerate piracy. This includes sharing registration numbers of shareware, etc.
- + Keep it clean! There are people of all ages and all walks of life in The Demesne. If my grandmother wouldn't want to hear it, keep it out of The Courtyard, at least. Heck, darn, poot, and freep are all acceptable alternatives.

OK, that said, have fun! Welcome to my Demesne . . .

Small infractions of the prescribed codes of conduct occur regularly but for the most part users behave themselves. More serious infractions become social dilemmas which makes their resolutions worthy of discussion in this context. Several examples from LambdaMOO and Lord Graham's will be discussed in this light. The most significant, and socially interesting, case of deviance on a MOO is that of virtual rape. This incident was seminal to the development of LambdaMOO as a society and was so significant that it was reported in The Village Voice of New York City, a widely read newspaper located a continent away. A character on LambdaMOO, Mr. Bungle, created a voodoo doll which allowed him to spoof other players from anywhere inside the MOO.

Julian Dibbell wrote,

The remaining facts tell us a bit more about the inner world of Mr. Bungle, though only perhaps that it couldn't have been a very comfortable place. They tell us that he commenced his assault entirely unprovoked, at or about 10 p.m. Pacific Standard Time. That he began using his voodoo doll for force one of the room's occupants to sexually service him in a variety of ore or less conventional ways. That this victim was legba, a Haitian trickster spirit of indeterminate gender, brown-skinned and wearing an expensive pearl gray suit, top hat, and dark glasses. That legba heaped vicious imprecations on him all the while and that he was soon ejected bodily from the room. That he hid himself away then in his private chambers somewhere I the mansion grounds and continued the attacks without interruption, since the voodoo doll worked just as well at a distance as in proximity. That he turned his attentions now to Starsinger, a rather pointedly nondescript female character, tall, stout, and brown-haired, forcing her into unwanted liaisons with other individuals present in the room, among them legba, Bakunin (The well-known radical), and Juniper (the squirrel). That his actions grew progressively violent. That he made legba eat his/her own public hair. That he cause Starsinger to violate herself with a piece of kitchen cutlery. That his distant laughter echoed evilly in the living room with every successive outrage. That he could not be stopped until at last someone summoned Zippy, a wise and trusted old-timer who brought with him a gun of near wizardly powers, a gun that didn't kill but enveloped its targets in a cage impermeable even to a voodoo doll's powers.

That Zippy fired this bun at Mr. Bungle, thwarting the doll at last and silencing the evil, distant laughter.¹⁶

Many players, including the victims, wanted the offender deleted from the game. The system administrators stated that they were technicians only and that they would not intervene on a social issue. They would, however, carry out the will of the majority on this and other matters. The debate raged for three days after the event until there was a wide open discussion held in LambdaMOO on how to deal with this crime and others of the same nature. The meeting was attended by both victims, the offender and people of various political persuasions. The meeting was productive because it gave people an opportunity to air their opinions but it failed to reach a consensus. After the meeting, one of the system administrators who had attended but had not commented, excused himself to delete the offending character from the game. Some time later, the user logged on to LambdaMOO through a different account which allowed him to create a new character. Once people realized who this new character was, many of them refused to interact with him and as a result he stopped visiting LambdaMOO.

Incidents of deviance have been much less serious on Lord Graham's Demesne. One of the requests made by the welcome message to refrain from swearing on the discussion groups. This request was made by Lord Graham to encourage written creativity rather than to suppress freedom of expression or to enforce morality. On very few occasions have the sysops had to remind a user of this request. A common defense was to plead ignorance but then amicably comply with the request. Only one user refused

¹⁶ Julian Dibbell, 1993. "A Rape in Cyberspace or How an Evil Clown, a Haitian Trickster Spirit, Two Wizards, and a Cast of Dozens Turned a Database into a Society." The Village Voice, December 21, 1993, pp.36-42.

to immediately comply but after a reminder was posted to *The Courtyard* sub, peer pressure convinced him to change his ways.

Another request made by the sysop in the welcome document was to refrain from using ANSI¹⁷ on the discussion subs because not all users are capable of receiving such information. At best it will look like a series of nonsense characters; at worst it will cause their terminal program or even their computer to crash. One user, Shadow, sent everyone on the board a full screen ANSI advertisement for a bulletin board system that he was starting with a friend.¹⁸ Many users became annoyed with this ad because it was a nuisance and it was taking up too much disk space. Furthermore the ad had overloaded the mail server. Mausburger had to delete many copies of this ad from the mail spool to get it running again. She sent a mail to the offending user asking him to refrain from doing this in the future. This user sent back a rather rude message making disparaging remarks about a BBS that was incapable of supporting ANSI screen. This user was subsequently deleted.

The most serious “incident” of deviance on Lord Graham’s Demesne was one of perceived misconduct on the part of the sysops in October 1994. This series of events is interesting not for any deviant behaviour but rather for the social dilemma it presents. In the *Usurper* game, there were two characters in the game were more successful than anyone else in the game by a large margin. A third character had far too much power for a low level character. The two high level characters were male, the third was female. The users who played these characters never had their logons recorded by the board. The

¹⁷ ANSI is a standard for transmitting colours, sound and animation.

¹⁸ ANSI ads for BBSs are quite comon. In fact, they are so common that other boards have subs devoted to them in order to keep them off the main discussion areas.

profiles of these characters fit those of the sysops who were immediately accused of cheating by manipulating game settings using an editor.¹⁹

Aldrich, a particularly irate player did a lot of research and posted her evidence along with a call for all three players to be removed from the game to make it fair. She posted the character statistics of some players to a newsgroup which in turn alienated some of her allies. Initially the sysops did not respond to what they felt were absurd charges by players who were bad losers. They believed that a voice of reason would arise from the among the players themselves and the matter would settle itself. However, this was not the case because the evidence and user sentiment were against them.

Figure 7: A Post from the fray

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9/50: usurper 6
Name: Aldrich #118 @14
Date: Sat Oct 15 16:55:18 1994

> The request was based on the assumption that these were sysops and
> cosysops who were cheating. These players were convicted without
> a trial.

i would be happy to talk to these players. i would love to. members of
my team have left messages in the past to at least 2 of the 3 characters
in question. there has been no answer. and i can't ask them outside
the game because they do not appear on the caller list so i can't tell
who they are. if they wanted to speak to us they would have answered our
messages. they have not. so the accusations are here in public where
everyone can see.

this is not by any means an accusation to you mausburger, if
your not playing. but you have not shown me any reason why i should not
think these characters are cheating. if you can do that then i will
apologize and admit i am wrong. i will concede that if cugel is
extremely skilled then his might be an honest character. but he is
being made to look bad by strup who is really suspicious, and the fact
they both call locally.the evidence is not in their favor and if you
don't play the game then you may not see why they look so suspicious. i
think that the people playing them may not be telling you the truth
either. why are you the one defending them? why can't they speak for
themselves instead of letting you take the heat? your loyalty is
touching but i think they should defend themselves or have their
characters removed.

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¹⁹ Accusations of cheating on the part of sysops are not an unknown occurrence on bulletin board systems. Sometimes they are true and the some sysops do edit the games. However furour surrounding these events usually dies down after a few days. In this situation, neither event occurred.

thank you for reading my ranting. will the real strup, cugel, and
garulfi
please step forward, particularly the former.
aldrich

Soon there was a lynch mob out to have these characters deleted and they sysops were accused of other alleged crimes committed elsewhere on the board.

One by one the sysops made a single angry response. They categorically denied any wrong doing on their part. They had developed their characters by optimizing strategies and sharing game tactics. The apparent power of the third character came from a bug involving pointer errors in the game which told other players they had been killed by someone when this was not the case at all. The WWIV software does not record and consequently does not display logons by sysops and co-sysops. The sysops were eventually cleared of the charges made against them but by then there was so much bad sentiment on surrounding the game that some people were playing less frequently and others dropped out entirely.

On both media, most deviant activities were only those that were afforded by the technology. There are no analogs in real life to spoofing, editing a game, sending too much mail, and pointer errors.. This is not to down play the seriousness of the offenses but there is the element of unreality about it because the impact of these crimes are rather small in comparison to other non-recreational activities. It's a hollow platitude to those who were victims of deviance but it is just a game. In terms of social phenomena,

however, these crimes are noteworthy for how people reacted to them and how they dealt with them. Let us consider the most serious crimes only on each medium.

When dealing with deviance on these environments, the solution is invariably a compromise between what can be done and what ought to be done. Administrators and researchers of MOOs have characterized reactions to deviant behaviour as two continuums as given in Figure 8. Users have been deleted from both LambdaMOO and Lord Graham's Demesne. Some argue against this is undesirable because it is like capital punishment in real life. However, the main failing of this type of punishment is that there is little to prevent the user from coming back as a new character or logon. However, some would also argue that having to create a persona is of itself sufficient punishment because people develop close and meaningful relationships with their alter egos. Messages or chats with the administrators sometimes work and so does peer pressure.

Figure 8: Approaches to Deviant Behaviour: Two Continuums²⁰

Decentralized	gagging (MUDs) ²¹ kill files (BBSs) ²²	feedback from peers
Centralized	banishment (MUDs) account suspension (BBSs)	feedback from administrators
	Technological	Social

²⁰ Bruckman, Curtis, Figallo and Laurel, 1994.

²¹ If a user does not want to see any output from another character, they can use the 'gag' command. However this does not stop the offender from continuing their misbehaviour, it only means that the offende doesn't hear about it. Some people feel that not knowing is worse than the rudeness or abuse itself.

²² Kill files allow a user to select the articles or mail that they see. While this is common in USENET newsreaders, it is not present on all BBSs or mail readers.

If the crime that had taken place on LambdaMOO happened in real life, the solution would be clear. We have courts and laws to deal with rapists. These mechanisms have been developed over a long period of time with input from the populace that they serve. Such mechanisms have not had sufficient time to develop on LambdaMOO but the virtual rape has acted as a catalyst in their evolution. In the year and half since the crime, programs have been written to initiate and gather votes from the community in referenda concerning the development of the virtual world and various boards and committees with elected representatives determine directions of growth.

In real life accusations about misconduct are sometimes made but the accusers are more taciturn when doing it. It would be hard to imagine a single person confronting three individuals in charge of an organization and accusing them of manipulating it to their advantage. These accusations would be unlikely for a number of reasons. The social pressures to conform would prohibit someone speaking out in such a manner. It is also extremely unusual for the directors of an organization to be accused of cheating or manipulating the company to their own advantage because it happens so often that such an event would be commonplace or even accepted practice. Further, the accusations were made with the sincere hope that this injustice be rectified.

These reactions are indicative of the utopian nature of virtual communities. Where else in real life are you told that you should go see a wizard if some one is rude to you? In these environments, people ought to be nice to one another. People ought not to cheat. Justice ought to be served in LambdaMOO and Lord Graham's Demesne. Users expect a perfect world because that is the model they followed when creating it. The lynch mobs

that formed both on LambdaMOO and Lord Graham's Demesne in response to incidents of deviance (either real or perceived) were indicative more of the level of community spirit that had developed. This sense of community is similar to the sense of psychological ownership referred to by interface designers in user centered design. The incidents of deviance and the witch hunts that followed are examples of how users try to control their environment using the tools available, which is another concept from interface design.

In a way these users are right, the world they create should be utopian because they made it that way. But who gets to decide what this way is and how can it be implemented? What should we deal with offenders in our utopian world? What happens when it is those in charge who are the offenders? These are important questions basic and universal in nature. They have proven to be unanswerable in the absolute sense in real life but we have come up with acceptable solutions such as courts and laws. These questions are reappearing in the worlds we are creating and they need to be dealt with or at least understood before computer mediated communication becomes part of our daily lives and not just a medium for play. If such phenomena can manifest themselves on both MOOs and BBSs then they certainly will be present when new frontiers of computer communication are opened.

A team of researchers recently conducted a study with school children using groupware software. They reported many instances of one student, David, who used the technology to take control away from the other users. A group of five students were using *Aspects*, a multi-user editing software package, to write a magazine together. One

characteristic of shared editors is that they use locking mechanisms to maintain a common version of the document between the users. The locking mechanism that *Aspects* uses is paragraph based.. This means that once one user has placed their cursor inside a paragraph to make changes, no other users can place their cursors inside the paragraph to make changes. David wrote the bulk of his text in a single paragraph to prevent other users from making modifications to his work.²³ Towards the end of the project one of the researchers forced him to break up his writing into paragraphs.

In the future when people are using CSCW tools, such as *SASSE*, *Aspects* and *Lotus Notes*, how can conflicts and deviance be resolved?²⁴ Will we need a wizard who is capable of intervening on our behalf when some perceived injustice occurs? Or is it sufficient to let users work it out amongst themselves? When people work in a shared editor, there is no host in current models of interaction. Presumably all participants will be equal and participate equally, but experience tells us that this is not the case. If an editor is commonly shared, who's responsibility is it to act when someone unjustly tries to take advantage of the technology or the other users? Perhaps groupware researchers should not be using an egalitarian model of shared spaces but rather a community model. In real life communities there are leaders and pathways for seeking redress when an injustice occurs.

Issues of community and deviance in existing CMC environments such as LambdaMOO and Lord Graham's Demesne are parallel important user issues such as

²³ Alex Mitchell, Ilona Posner, and Ron Baecker, (forthcoming), Learning to write together using groupware, CHI95.

²⁴ SASSE is a synchronous and asynchronous shared editor developed here at University of Toronto. It allows multiple users to edit a single document while on-line and off-line. *Aspects* and *Lotus Notes* are similar packages sold by Group Technologies Inc. and Lotus Corporation, respectively.

psychological ownership and control. Researchers would do well to learn lessons from these play environments and to implement socially realistic conflict resolution mechanisms in CSCW and CMC before they pervade our lives. It is difficult to predict the future from a blank slate but it is much less difficult to extrapolate a future using small representative models with active participants rather than experimental subjects. Rarely do researchers have such dynamic models of interaction to study as they with multi-user environments and bulletin board systems and such an opportunity should be seized.

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